

Curriculum Vitae

JOSE C. PRINCIPE, Ph.D.

Distinguished Professor of Electrical Engineering

University of Florida •Department of Electrical & Computer Engineering

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PERSONAL RECORD

Date of Birth: April 13, 1950.

Place of Birth: Porto, Portugal

Citizenship: USA

Married, 2 children.

SCHOLASTIC TRAINING

- 1985 University of Aveiro, Degree of Agregado.
1979 University of Florida, Ph. D. in Electrical Engineering.
1974 University of Florida, M. Sc. in Electrical Engineering.
1972 University of Porto, Licenciatura in Electrical Engineering.

FIELDS OF INTEREST

Adaptive Systems Theory, Nonlinear Signal Processing, Computational NeuroEngineering, Machine Learning, Nonlinear Dynamics.

PROFESSIONAL EXPERIENCE

- 2016- Pres. Eckis Professorship in Electrical and Computer Eng.,
University of Florida
2005-2009 Professor Catedratico (Invited), Faculdade de
Engenharia Universidade do Porto, Portugal
2002 -Pres. Distinguished Professor of Electrical Engineering,
University of Florida
1999-Pres. Adjoint Professor of Biomedical Engineering, University
of Florida
1995-2016 BellSouth Professor, University of Florida
1993-Pres. Professor of Electrical Engineering, University of
Florida.
1991-Pres Founder & Director of the Computational Neuro
Engineering Laboratory, University of Florida.
1987-1993 Associate Professor Electrical Engineering, University of
Florida, Gainesville, Florida.
1985-1987 Professor of Electrical Engineering, University of Aveiro,
Aveiro, Portugal.
1985-1986 Visiting Professor Electrical Engineering, University of
Florida, Gainesville, Florida.
1980-1985 Associate Professor Electrical Engineering, University of
Aveiro, Aveiro, Portugal.
1979-1980 Post Graduate Fellow, Electrical Engineering, University of
Florida, Gainesville, Florida.

1976-1979	Research Assistant, EEG Laboratory, Electrical Engineering University Florida, Gainesville, Florida.
1974-1980	Assistente, Electrical Engineering, University of Aveiro, Aveiro, Portugal.

TEACHING EXPERIENCE

Taught an average of two courses per year at the graduate and advanced undergraduate levels.

Undergraduate:

EEL 3135	Signals and Systems
EEL 4712	Digital Design
EEL 4744	Microprocessor Applications
EEL 4930	Adaptive Systems

Graduate:

EEL 5719	Digital Filtering
EEL 5525	Foundations of Signal Processing
EEL 5934	Microprocessors in DSP
EEL 6502	Adaptive Signal Processing
EEL 6505	Spectral Analysis
EEL 6702	Digital Signal Processing
EEL 6586	Speech Processing
EEL 6733	Abstract Machines
EEL 6935	Multi-D Signal Processing
EEL 6824	Algorithm Design
EEL 6814	Artificial Neural Networks
EEL 6935	Information Theoretic Learning
EEL 6935	Brain machine Interfaces

Prepared with Dr. Fred Taylor, courses on Digital Filter Design for the National Technical University, NTU (1988, 1991, 1993).

Introduced three new courses in the University of Florida catalog:

- EEL 6502 Adaptive Signal Processing (1990)
- EEL 6814 Neural Networks for Signal Processing (1995)
- EEL 6935 Information Theoretic Learning (2008)

CURRICULUM INNOVATION

Developed an interactive teaching environment for Adaptive Systems instruction at the undergraduate level (EEL 4930) during 1997-98, which entailed:

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- Creation of the Interaction Teaching Laboratory (ITL).
 - Development of an interactive electronic (CD-ROM) textbook integrated with a software simulator published by John Wiley & Sons.
 - Experimental teaching across the WEB and in-class.

Is developing a series of WIKIs to organize the research results and that have been used to teach special topics EEL 6935, Information Theoretic Learning and updates to more traditional courses (such as EEL 6502 Adaptive Filtering) with new material Kernel Adaptive Filtering, which is a new learning model to foster communication among students dedicated to the same topic, worldwide.

SOCIETIES AND ORGANIZATIONS

Institute of Electrical and Electronic Engineers (Life Fellow)
Institute of Electrical and Electronic Engineers (Fellow)
American Institute for Medical and Biological Engineering (Fellow)
International Neural Network Society (College of Fellows)
SPIE- The International Society for Optical Engineering (Member)
American Society for Engineering Education (Member)
Phi Kappa Phi (Scholastic Honorary)
Ordem dos Engenheiros (Portugal)

SCHOLARSHIPS

Invited Scientist, Portuguese Science Technology Ministry (1996-99).
Fullbright Fellow (1985-1986)
NATO Scholarship (1976-1979)
ITT Scholarship (1973-1974)

UNIVERSITY SERVICE

Member of the ECE Faculty Development Committee, 2013-2016
Chair of the ECE Faculty Search Committee, 2011, 2013.
Chair of the U. Florida Academic Personnel Board, 2009-10.

Member of the U. of Florida Provost Search Committee, 2004-5.
Member of the U. Florida Academic Personnel Board, 2004 -6.
Chair of the ECE Faculty Search Committee, 2003.
Chair of the ECE Department Head Search Committee, 2002.
Member of the Graduate Council, 2002-05.
Member of the ECE Strategic Planning Committee, 2002.
Head of the ECE Senior Faculty Search Committee, 2002.
Member of the Biomedical Engineering Planning Committee, 2001
Member of U.F. Proposal Review Committee, 1999-01
Member of the ECE Departmental Planning Committee, 1999-01
Member of the ECE Faculty Development Committee, 1999-01
Head, ECE Department. Faculty Development Committee, 1998.
Member of College of Engineering Tenure/Promotion Board, 1996-98.
Head, BellSouth Search Committee, 1997.
Member of Faculty Development Committee since 1995.
Member of the Advisory Board, U.F. Brain Institute., 1994-2008.
Head Search Committee, DSP Faculty Line, 1993, and 2001.
Member of the University Senate, 1990-1992.
Head DSP Area Committee, 1991-2, 1992-3, 1995-1998.
Member Graduate Committee 1988-9, 1991-2, 1992-3, 1995-1998.
Member Curriculum Committee 1990-1991.
Member Search Committee for Dept. Chairman, 1990.
Member Bell South Chair Committee, 1992.
Head Search Committee, DSP Faculty Line, 1992.
University Patent Committee on Biomedical Technology, 1992-95.

HONORS and AWARDS

Life Fellow, IEEE, 2017
ECE Excellence Award in Research, 2016
SEC Faculty Achievement Award Winner, 2016
University of Florida nominee for the Southeastern Universities Research Association (SURA), 2015

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- University of Florida Teacher/Scholar of the Year 2014-2015
- University of Florida Research Fellowship, 2014-2016
- Honorary Professor, U. Nacional de Colombia, Medellin, 2013
- Honorary Professor, Xi'An Jiaotong University, China, 2012
- Fellow, Int. Academy for Medical and Biological Engineering, 2012
- Distinguished Lecturer, IEEE Computational Intelligence Society, 2011-2013.
- Guest Professor Zhejiang University, Hangzhou China, 2011
- Member of the College of Fellows, International Neural Network Society, 2011.
- IEEE Neural Network Pioneer Award, from the IEEE Computational Intelligence Society, 2011.
- Honorary Doctorate Degree in Technology from Aalto University, Helsinki, Finland, 2010.
- Honoris Causa Degree at the University Federal do Maranhao, Brasil, 2008.
- Career Achievement Award from the IEEE Engineering in Medicine and Biology Society, 2007.
- University of Florida Research Fellowship, 2007-2009.
- Gabor Award, International Neural Network Society, 2006
- Fellow, American Institute of Medical and Biological Engineering, 2006
- 2005 IEEE Engineering in Medicine and Biology Society's Career Service Award.
- Laurea Honoris Causa in Ingegneria Elettronica by the Universita Mediterranea, Reggio Calabria, Italy, June, 2005
- Co-author with Robert Jenssen of the best student paper award at ICASSP 2005.
- President, International Neural Network Society, 2004.
- Co-author with D. Erdogan of the 2003 Young Author Award in the IEEE Trans. on Signal Processing.
- University of Florida Distinguished Professor of Electrical and Biomedical Engineering, 2002.
- University of Florida Doctoral Dissertation Advisor/Mentoring Award, 2002.
- IEEE Fellow (Signal Processing Society), 2000
- University of Florida Research Professor Fellowship, 1999-2001.
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Elected to the IEEE EMBS Administrative Committee, 1999.

Best presentation award, International Joint Conference on Neural Networks, Washington, 1999.

Elected to the Board of Governors of the International Neural Network Society (1998, 2001)

Nominated to the Discovery Magazine Technology Award (1998)

BellSouth Professor from 1995-2016.

Outstanding Master Thesis supervisor, Electrical Engineering Department, University of Florida, 1992

Senior Member of the IEEE, 1992.

Innovation and Creativity Award, Portuguese Electronic Industry Association, 1991 (with P. Oliveira and B. Cunha).

Listed in Who's Who in the South and Southeast, since 1991.

LANGUAGES

Fluent in Portuguese and English.

Understands and speaks French and Spanish.

PROFESSIONAL ACTIVITIES

Vice-President for Technical Activities, IEEE EMB Society 2014-2016

Chair, Awards Committee, IEEE CI Society, 2013

Member of the IEEE Life Science Initiative, 2011

Member of ADCOM of the IEEE Computational Intelligence Society, 2010-2012, 2013-2015.

Chair, Awards Committee, IEEE Eng. Med. Biol. Society, 2009-2012.

Member of the Selection Committee for the IEEE Medal on Health Care Technologies, 2009-2010

Member of the Executive Committee of the International Neural Network Society, 2009-2010.

Member of the ADCOM of the IEEE Biometrics Council, 2009-2010.

Member of the Board of Governors of the International Neural Network Society, 2007-2009.

Member of the IEEE-Brain Computer Interface Committee, 2007

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- Member of the Scientific Committee that was charted by NIH and NSF to survey the state of the art in Brain Machine Interface research around the world, 2006.
- Senior Member of the Editorial Board of the IEEE Trans. Neural Systems and Rehab Eng., 2006-2009.
- Member of the Committee of Visitors (COV) of the NSF ECS Division, March 2005.
- Member of the ADCOM of the IEEE Signal Processing Society, 2005.
- Chairman of the NIH site visit for a NIH/NCRR Research Resource for Complex Physiologic Signals, Beth Israel Deaconess Medical Center (BIDMC), October 2003.
- Member of ADCOM for the IEEE Signal Processing Society, 2003
- Member of ADCOM for the IEEE Neural Networks Society, 2003, 2005.
- President of Forum of Portuguese Researchers, 2002.
- Member of ADCOM for the IEEE Biomedical Engineering Society, 2001 to 2008.
- Member of the External Advisory Board of the Dept. of Electrical Engineering, U. of Porto, Portugal, 2003 - present.
- Member of the FDA Scientific Board, 2001-2004.
- Member of the NSF site visit team for Caltech's ERC Center for Neuromorphic Engineering, 2001, 2002, 2003.
- Chair of the IEEE Signal Processing Technical Committee on Neural Networks, 2001.
- Member of Board of Visitors of the ONR BioEngineering program, 1999.
- Member of the Committee of Visitors of the NSF Electrical Communication and Systems Division, 1999.
- Secretary of the IEEE Signal Processing Technical Committee on Neural Networks, 1998-9.
- Member of the Board of Governors of the International Neural Network Society, 1998-2004.
- Member of the Neural Network Signal Processing Technical Committee, IEEE Signal Processing Society, 1993-97.

EDITORIAL ACTIVITIES

Member of the Editorial Board, Entropy, 2016-.

Member of the Editorial Board, Neural Computation, MIT, 2015-.

Guest-Editor, Special Issue on Cyborg Intelligence: Towards Bio-Machine Intelligent Systems, in IEEE Computational Intelligence Magazine, 2015.

Guest-Editor, Special Issue on BCI Game Interfaces and Interaction, in IEEE Transactions on Computational Intelligence and AI in Games, 2013.

Member of the Editorial Board, Int. J. Uncertainty, Fuzziness and Knowledge-Based Systems, 2012-2015

Guest-Editor, Special Issue on Kernel Learning for Signal Processing, IEEE Signal Processing Magazine, 2012.

Guest-Editor, Advanced Computational Techniques and Tools for Neuroscience, Computational Intelligence and Neuroscience, Hindawi, 2011.

Editor of the Wiley Series in Adaptive and Learning Systems for Signal Processing, Communication and Control, 2010-2012.

Member of the Editorial Board, IEEE Special Topics Signal Proc., 2011-2013

Founder Editor in Chief of IEEE Reviews on Biomedical Engineering, 2008-2010, and 2011-2013.

Guest-Editor, Special Issue on Neural Signal Processing, EURASIP Journal on Advanced Signal Processing, 2009.

Member of the Editorial Board, Cognitive Computation, Springer since 2008

Member of the Editorial Board, EURASIP book series on Cognitive Engineering, 2009.

Guest-Editor, Advances in Independent Component Analysis and Blind Source Separation, Signal Processing, 2006

Member of the Editorial Board, IEEE Signal Proc. Magazine, 2007-9.

Guest-Editor, Special Issue on Advances in Independent Component Analysis and Blind Source Separation, Signal Processing, 2006.

Guest-Editor, Special Issue on Echo State and Liquid State Machines, Neural Networks, 2006.

Guest-Editor, Special Issue on Multimodal Information Theoretic Learning, Signal Processing, 2004.

Guest-Editor, Special Issue on Information Theoretic Learning Applications, IEEE Trans. Neural Networks, 2003

Member of the Editorial Board, Journal of Applied Research and Technology, since 2003.

Editor-in-Chief, IEEE Transactions on Biomedical Engineering, 2001-6.

Member of the Editorial Board, Natural Computation, Kluwer, 2002- 04.

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- Associate Editor*, IEEE Transactions on Neural Networks, 1999- 01.
- Associate Editor*, IEEE Transactions on Signal Processing, 1997-99.
- Guest-Editor*, Special Issue on Advances of Statistical Signal Processing, IEEE Trans. Biomedical Engineering, 1999.
- Associate Editor*, IEEE Transactions on Biomed Engineering, 1996-00.
- Guest-Editor*, Special Issue on Interaction with and Visualization of Biomedical data, IEEE Trans. Biomedical Engineering, 1990.

CONFERENCE ACTIVITIES

- General Co-Chair*, IEEE Neural Eng. Workshop, Shanghai, 2016
- Program Chair*, IEEE Eng. Medicine and Biology Conf., Orlando, 2016.
- Organizing Committee (Tutorials)*, 41th IEEE ICASSP, Adelaide, 2016.
- Honorary Chair*, BRICS-CCI 2013, Recife, Brasil 2013.
- General Co-Chair*, 9th Int. Workshop WSOM 2012, Santiago, Chile, 2012.
- Organizing Committee (Trends)*, 36th IEEE ICASSP, Prague, 2011.
- Track Chair*, Asilomar Signal Processing Workshop, 2009.
- General Chair*, Int. Workshop WSOM, 2009, St Augustine, Florida, 2009.
- General Chair*, IEEE MLSP Workshop (Machine Learning for Signal Processing), Cancun, Mexico, 2008.
- Technical Co-Chair*, IEEE Eng. Medicine and Biology Conf., Vancouver, Canada, 2008.
- Organizer*, Workshop on Neurotechnology, EMBS, Lyon, France 2007.
- Organizer*, Workshop on Brain Machine Interfaces, IJCNN (Int. Joint Conf. Neural Networks), Orlando, FL 2007.
- Member of the Program Committee*, IJCNN (Int. Joint Conf. Neural Networks), Orlando, FL 2007.
- Member of the Program Committee*, ICBB (Int. Conf. Bioinformatics and Biomedicine), S. Jose, CA, 2007.
- Member of the Program Committee*, ICCD (Int. Conf. Cognitive Neurodynamics), Shangai, PRC, 2007.
- Conference Chair and Organizer*, Workshop on Independent Component Analysis, Charleston, SC, 2006.
- Co-Chair*, IEEE IJCNN 06 (Int. Joint. Conf. Neural Networks), Vancouver, Ca, 2006.

Member of the Program Committee, ICML (Int. Conf. Machine Learning), Pittsburgh, 2006.

Member of the Program Committee, ICPR (International Conference on Pattern Recognition), Hong Kong, 2006.

Member of the Program Committee, The 5th International Workshop on Biosignal Interpretation, Tokyo Japan, 2005.

Member of the Program Committee, 16th European Conference on Machine Learning (ECML), Porto, Portugal 2005.

Member of the Program Committee, IDEAL (Int. Conf. on Data Engineering and Automated Learning), Brisban, Australia, 2005

Member of the Program Committee, ICINCO (Int. Conf. on Informatics in Control, Automation and Robotics), Porto, Portugal, 2005

Member of the Program Committee, IEEE IJCNN (Int. Joint Conf. on Neural Networks), Canada, 2005

Member of Steering Committee, IEEE EMBS Neural Engineering Conference, Washington DC, 2005.

General Chair, IEEE Workshop in Machine Learning for Signal Processing, S. Luis do Maranhao, Brasil, 2004.

Co-Chair, New Directions for Signal Processing in the XXI Century, Lake Louise, Canada, 2003.

Co-Chair, IEEE Engineering Biology and Medicine Conference (EMBC03), Cancun, Mexico, 2003.

Member of the Program Committee, EMMCVPR 2003 Lisbon, Portugal, 2003.

Member of the Program Committee, ICA2003 Tokyo, Japan, 2003.

Member of the Program Committee, IJCNN, Portland, OR, 2003.

Member of the Program Committee, NNSP03, Toulouse, France, 2003.

Member of the Program Committee, ICASSP 2003, Hong-Kong, 2003.

Member of the Program Committee, International Conference on Intelligent Control and Signal Processing, ICONS'03, Faro, Portugal, 2003.

Member of the Program Committee, VII Brazilian Symposium on Artificial Neural Networks, SBRN'02, Recife, Brazil, 2002

Program Chair, Office of Naval Research Grantees Workshop, Gainesville, Florida, 2002

Technical Program Chair, IEEE International Conference in Acoustics and Signal Processing Conference, ICASSP 2002, Orlando.

Member of the Program Committee, IDEAL'02, Manchester, UK, 2002.

Member of the Program Committee, NNSP02, Martigny, Switzerland, 2002.

Special Session Organizer “Information Theoretic Learning”, International Joint Conference on Neural Networks, Washington, DC, 2001.

Member of the Program Committee, ICA2000 San Diego, CA, 2001.

Member of the Program Committee, NNSP01 Falmouth, MA, 2001.

Co-Chairman of the Symposium on Adaptive Systems, Lake Louise, Canada, 2000.

Member of the Program Committee, ICA2000 Helsinki, Finland, 2000.

Member of the Program Committee, NNSP00 Australia, 2000

Session Organizer, ASILOMAR Conference on Signals, Systems and Computers, 1999.

Member of the Program Committee of the International Joint Conference on Neural Networks, 1999.

Program Chair, IEEE Workshop on Neural networks for Signal Processing, Amelia Island, 1997.

Technical Program Chair, Sintra Conference on Spatio-Temporal Models, Sintra, Portugal, 1996

Member of Technical Committee, IEEE Workshop on Neural Networks for Signal Processing, Kyoto, Japan, 1996.

Program Chair, Office of Naval Research Grantees Workshop on Nonlinear Dynamical Systems, Gainesville, FL 1996.

Track Chair, Speech and Signal Processing area, Neural Information Processing Systems (NIPS8), Denver, 1995.

Member of Technical Committee, IEEE Workshop on Neural Networks for Signal Processing, Boston, 1995.

Member of Technical Committee, Neural Information Processing Systems Conference, Denver, 1994.

Member of Technical Committee, IEEE Workshop on Neural Networks for Signal Processing, Greece, 1994.

Member Technical Committee, Int. Symp. Integrating Knowledge and Neural Heuristics, Pensacola, FL, May 1994.

Member Technical Committee, IEEE Workshop on Neural Networks for Signal Processing, Maryland, 1993.

Chairman of Session “Quantitative EEG analysis”, European EEG Congress, Lisbon, 1992.

Program Co-Chair, Conference on Chaos and EEG, Tallahassee, Florida, April 1991.

Chairman of the session “Expert systems in EEG analysis”, IEEE EMBS 90, Philadelphia, 1990.

Member of the Organizing Committee of the 5th IEEE Int. Symp. on Intel. Control, Philadelphia, 1990.

Member of the discussion panel on Chaos and Fractals in Electroencephalography, 1st Conf. on Biomedical Computing, Atlanta, GA, 1990.

Member of the Organizing Committee, BioEng’88 Conference, Porto, Portugal.

Chairman of the session “EEG signal Analysis”, 9th Annual Int. Conf. IEEE/EMBS Society, Boston 1987.

Chairman of the session “Signal Processing” 1st Symposium of Electronics and Communications, IEEE sponsored meeting, Lisbon, Portugal, 1984.

Chairman of the session “Other Applications of Signal Processing”, Portuguese Workshop on Signal Processing and its Applications, Portugal, 1982.

Organizer of the workshop “Computers in Biomedicine”, University of Porto, Portugal, 1982.

INTERNATIONAL ACTIVITIES

Member of the Advisory Council, Portuguese Agency for Innovation, Porto, Portugal 2014-

Member of the Graduate School Council, U. of Aveiro, Portugal 2012-2015

Deputy Director, International Research Center for Cognitive Engineering, Xi’An Jiaotong University, 2012

Member of the Scientific Advisory Board of the Institute for Biomedical Research, Porto, Portugal, 2010-2013.

Member of the Scientific Advisory Board for the Center of Excellence in Adaptive Informatics Research, Helsinki U. of Technology, Finland (nominated by the Academy of Finland), 2006-present.

Member Scientific Advisory Committee, INESC-ID, Lisbon, Portugal, 2002- present.

Chair of the International Scientific Advisory Board, INESC Porto, Portugal 1998- present.

Member of the Advisory Committee for the Italian Society for Neural Networks, 2009.

Director, Doctoral Program in the Electrical Engineering Department, Faculdade de Engenharia, U. of Porto, Portugal, 2005-2009.

Member of the NSF Team to the joint US-Portugal International Meeting to foster innovative growth through partnerships, sponsored by the American Embassy in Lisbon, Portugal, July 2003.

Coordinator of the Exchange Scholar Program between U. of Florida and Portuguese Universities (1-2 visitors per year).

Member of the organizing committee of the International Sian Ka'an Conference on Neural Systems (co-sponsored by the National Science Foundation) held in Playa del Carmen, Mexico, in 1995 and 1997.

Invited Scientist of the Portuguese Science and Technology Ministry in 1996, 1997 and 1998.

Project reviewer for the Portuguese Science and Technology Ministry in 1997, 1999.

Senior Researcher INESC-Aveiro, Portugal, 1982-87.

Vice President Portuguese Section of the Institute of Electrical and Electronic Engineers (IEEE), 1985.

Invited Researcher "Psychiatrich Klinik Konigsfelden", Switzerland, Summer 84.

General Secretary of the INIC Research Center at the EE Dept., University of Aveiro, 1980-1985.

INTERVIEWS

Tertulias Portugueses + , Interview for Portuguese National TV (TVI24), August 2015, <https://www.youtube.com/watch?v=78kK5gzfR0k>

Reuters Technology, Sensors based on a lobster 'nose' may someday sniff out landmines, March 18, 2014 (<http://www.reuters.com/article/2014/03/18/us-usa-florida-lobsters-idUSBREA2H2B820140318>)

Interview on RTPN 18/20 News (Portuguese National Broadcast) related to the IEEE NN Pioneer Award prize, July 25, 2011.

Interview on RTP (Portuguese National Broadcast) related to the IEEE BMES Career Award, Aug, 2007.

Interview on the mathematics of neural network for the "Living Math Project" being prepared for the National Science Foundation, 2005.

Panel Discussion with the Portuguese Minister of Science and Technology
on International Dimension of Portuguese Research, organized by INESC
June 20, 2005, Porto, Portugal.

Interview in the newspaper Jornal de Notícias, June 21, 2005, pp 10, about
Internationalization of higher education.

ACM Hot topics, Brain machine Interfaces, March 2005.

http://www.reviews.com/hottopic/hottopic_index.cfm

Personal profile in the magazine Visão, # 598, pp 80, Aug 19, 2004 (in
portuguese).

Interview in the newspaper Capital on the status of the portuguese
educational system, # 11538, pp 7, July 18, 2004 (in portuguese)

“Generation Start-up”, In Expresso International, Feb. 21, 2004 (in
portuguese).

“Mind Over Matter”, Florida Engineer, pp 14-15, Fall 2002.

“A book for the XXI century”, in Expresso Revista # 1540, pp 86-88, May
4, 2002 (in Portuguese).

TV program on Internet II and its applications to distance learning, PBS,
January 2000.

“Computer Requirements for students change Professor’s role”,
Chronicles of Higher Education, June 26, 1998.

“Paperless books”, in ASEE Prism, December 1997.

“Improving the Human Interface”, in Computers in Healthcare, February
1993.

“Increasing medical understanding through signal processing”, Feature
article in the magazine NeXT on Campus, Winter 1990.

NOMINATIONS

Finalist, Technology Leader in Florida, 2007.

Nominated to the Discover Magazine Innovation Awards, 1998.

Nominated to the Smithsonian Computerworld award, 1991.

CONSULTING

Prioria, Gainesville, 2007

Convergent Engineering, Gainesville 2005- today

NeuroDimension Incorporated, Gainesville 1993- 2005.
MLI, Machine-tool Laboratory, Incorporated, Gainesville, 1991.
Microtronics, Incorporated, Gainesville, Florida, 1987-1990.

INDUSTRIAL ACTIVITIES

Founding partner and Vice President for Research, NeuroDimension, Incorporated, Gainesville, Florida, from 1993-2005.

PATENTS

- UF 15514 Principe, Jose C 01/02/15 Pulse Based Arithmetic Unit
- UF 15736 Principe, Jose C 05/04/15 Pulse-Based Automatic Speech Recognition
- UF 15838 Principe, Jose C 07/10/15 Pulse Based Automatic Gain Control for Analog and Pulse Domain
- UF 15038, Principe, Jose C., 2013, Regulation Brain state advisory system using calibrated metrics and optimal time-series decomposition
- UF 14748, Principe, Jose C 2013, Integrate and fire pulse train automaton for QRS detection.
- UF 14476, Principe, Jose C 2012A distributed hierarchical model for object recognition in video.
- UF 13401 Principe, Jose C, 2010 Portable Interface for Cognitive Output.
- UF 12958, Principe, Jose C, 2008, Kernel Associative Memories.
- UF12306, Principe Jose C., 2006, Robust Signal Detection Using Correntropy.
- 32 9,424,652 Adaptive Background Estimation, Principe, Jose C, Cinar G., Aug 23, 2016.
- 31 9,269,050 Classification using Correntropy, Principe, Jose C., Singh A., February 23, 2016.
- 30 9,269,371 Adaptive Systems using Correntropy, Singh A., Liu W. Principe, Jose C, February 23, 2016.
- 29 9,218,527 Anomaly detection in streaming data, Lakshminarayan Choudur K., Kriminger, Principe Jose C., December 22, 2015,
- 28 9,078,629 Detecting regime change in streaming data, Lakshminarayan; Choudur K., Kriminger Evan, Principe Jose C., July 14, 2015

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- 27 9,050,200 System and method for brain machine interface (BMI) control using reinforcement learning, Digiovanna; John F., Mahmoudi; Babak, Mitzelfelt; Jeremiah D., Sanchez; Justin C., Principe; Jose C., June 9, 2015
- 26 9,047,746 Electronic medication compliance monitoring system and associated methods Euliano, II; Neil R., Myers; Brent A., Principe; Jose C., Meka; Venkata V., Flores; Glen, June 2, 2015
- 25 9,037,518, Classifying unclassified samples, Lakshminarayan; Choudur, Kriminger; Evan, Principe; Jose C., May 19, 2015
- 24 8,706,203 Classification of a signal in a time domain, Lakshminarayan; Choudur, Alvarado; Alexander Singh, Principe; Jose Carlos, April 22, 2014
- 23 8,611,839 Robust signal detection using correntropy, Principe; Jose C., Liu; Weifeng, December 17, 2013
- 22 8,428,732, Neural interface systems and methods, Nishida; Toshikazu, Harris; John Gregory, Bashirullah; Rizwan, Principe; Jose, Sanchez; Justin, April 23, 2013
- 21 8,275,451 Maternal-fetal monitoring system, Marossero; Dorothee, Euliano; Tammy Y., Euliano, II; Neil Russell, Principe; Jose C., September 25, 2012
- 20 8,244,787 Optimum nonlinear correntropy filter, Principe; Jose C., Pokharel; Puskal P., August 14, 2012
- 19 8,233,873 Device and methods for enhanced matched filtering based on correntropy, Principe; Jose C., Agrawal; Rati, Pokharel; Puskal P., July 31, 2012
- 18 8,211,015, Obstetric analgesia system, Euliano; Tammy Y., Euliano, II; Neil Russell, Principe; Jose C. , Marossero; Dorothee , July 3, 2012
- 17 8,160,692, System and method for analyzing progress of labor and preterm labor, Principe; Jose C., Marossero; Dorothee, Euliano; Tammy Y., Euliano, II; Neil Russell, April 17, 2012
- 16 8,139,654 Device and methods for biphasic pulse signal coding, Chen; Du, Harris; John G., Principe; Jose C., March 20, 2012
- 15 8,122,883 Medical ventilator and method of controlling same, Banner; Michael J., Blanch; Paul B., Euliano; Neil R., Principe; Jose C., February 28, 2012
- 14 7,965,779 Low power, wavelet-based spike detector, She; Christy L., Harris; John G., Principe; Jose C., June 21, 2011
- 13 7,942,818, Obstetric analgesia system Euliano; Tammy Y., Euliano, II; Neil Russell, Principe; Jose C., Marossero; Dorothee, May 17, 2011
-

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- 12 7,796,043, Medication compliance system and associated methods, Euliano; Neil R., Principe; Jose C., Meka; Vikas V., Stahl, Jr.; Michael W., September 14, 2010
 - 11 7,529,651 Accurate linear parameter estimation with noisy inputs, Erdogmus; Deniz, Principe; Jose Carlos, Rao; Yadunandana Nagaraja, May 5, 2009
 - 10 7,495,942 Nanoscale content-addressable memory, Davis; Bryan, Principe; Jose C., Fortes; Jose, February 24, 2009
 - 9 7,333,850 Maternal-fetal monitoring system, Marossero; Dorothee, Euliano; Tammy Y., Euliano, II; Neil Russell, Principe; Jose C., February 19, 2008
 - 8 7,324,035 Amplifier with pulse coded output and remote signal reconstruction from the pulse output, Harris; John G., Chen; Du, Wei; Dazhi, Principe; Jose C., January 29, 2008
 - 7 7,210,478 Ventilator monitor system and method of using same, Banner; Michael J., Euliano, II; Neil Russell, Principe; Jose C., Blanch; Paul B., May 1, 2007
 - 6 7,066,173 Medical ventilator and method of controlling same, Banner; Michael J., Blanch; Paul B., Euliano; Neil R., Principe; Jose C., June 27, 2006
 - 5 6,963,604, Blind equalizers using probability density matching and parzen windowing, Erdogmus; Deniz, Lazaro; Marcelino, Principe; Jose Carlos, Santamaria; Ignacio, November 8, 2005
 - 4 6,796,305 Ventilator monitor system and method of using same, Banner; Michael J., Blanch; Paul B., Euliano; Neil R., Principe; Jose C., September 28, 2004
 - 3 6,420,927 Filter and hold circuit utilizing a charge/discharge current, Tavares; Vitor Manual Grade, Principe; Jose C., Harris; John G., de Oliveira; Pedro Guedes, July 16, 2002
 - 2 5,301,135 Adaptive filter based on a recursive delay line, Principe; Jose C., de Vries; Bert, April 5, 1994
 - 1 Time-Marker, Device to inscribe numerals in polygraphs, Portugal and Europe, (with P. Guedes de Oliveira and M. Cunha), 1985.

AUTHOR IMPACT ANALYSIS

Using Google Scholar on December 26, 2016 (search Jose Principe)

H-index: 67

Papers: 684

Citations: 20,503

Years: 31

i10-index: 375

BOOKS

- 6 Chen B., Zhu Y., Hu J., Principe J., “System Parameter Identification: Information Criteria and Algorithms”, Elsevier 2013 (**Notable Book Award, Computing Reviews, 2013**).
- 5 Principe J., Information Theoretic Learning: Renyi's Entropy and Kernel Perspectives, Springer 2010.
- 4 Liu W., Principe J., Haykin S., "Kernel Adaptive Filtering: a Comprehensive Introduction", John Wiley, 2010.
- 3 Sanchez J. and Principe J., Brain Machine Interface Engineering, Morgan and Claypool, 2007.
- 2 Haykin S., Sandberg I., Wan E., Principe J., Fancourt C., Katagiri S., “Nonlinear Dynamical Systems: Feedforward Neural Network Perspectives”, John Wiley, 2001.
- 1 Principe J., Euliano N., Lefebvre C., “Neural and Adaptive Systems: Fundamentals through Simulations”, interactive book, John Wiley, 2000.

EDITED BOOKS

- 8 Estevez P., Principe J., Zeger P., Advances in Self-Organizing Maps, Adv. Int. Systems and Computing 198, Springer 2012
- 7 Príncipe J., Miikkulainen R.: Advances in Self-Organizing Maps, Lecture Notes in Computer Science, Springer 2009
- 6 Berger T. Chapin J., Gerhardt G., McFarland D., Principe J., Soussou W., Taylor D. and Tresco P., International Assessment of Research and Development in Brain Computer Interfaces, World Technology Evaluation Center, Baltimore, Maryland, 2007.
- 5 Rosca J., Erdogmus D., Principe J., Haykin S., Independent Component Analysis and Blind Source Separation, Lecture Notes in Computer Science, Springer Verlag, 2006.
- 4 Haykin, Principe, Sejnowski, McWhirter, New Directions in Statistical Signal Processing, MIT Press, 2006.

-
- 3 Pardalos P., Principe J., Biocomputing, Kluwer, 2002.
 - 2 Principe J., Giles L., Morgan N., Wilson E., Neural Networks for Signal Processing 7, IEEE Press, 1997.
 - 1 Silva F., Principe J., Almeida L., SpatioTemporal Models in Biological and Artificial Systems, IOS Press, 1996.

BOOK CHAPTERS

- 24 Chen B., Liu W., Príncipe J., "Theoretical Methods in Machine Learning", Springer Handbook of Computational Intelligence, Kacprzyk & Pedrycz (Eds.), 2015
 - 23 Chen B., Li L., Liu W., Príncipe J., "Nonlinear Adaptive Filtering in Kernel Spaces", Springer Handbook of Bio-Neuroinformatics, 715-734, 2014.
 - 22 Brockmeier A, Principe J., "Decoding Algorithms for Brain Machine Interfaces", in NeuroEngineering, Edited by Bin He, John Wiley & Sons, in press.
 - 21 Paiva A., Principe J., "Multi-input multi-scale neural decoding with spike train kernels", in Ed. Farina D., Jensen W, Akay M, Introduction to Neural Engineering for Motor Rehabilitation, Wiley, 2011.
 - 20 Paiva A., Park I., Principe J., "Inner products for representation and learning in the spike train domain", in K. Oweiss, editor, Statistical Signal Processing for Neuroscience, 265-305, Springer 2010.
 - 19 Paiva A., Park I., Principe J., "Optimization in Reproducing kernel Hilbert Spaces of Spike Trains", in Chaovallitwongse, Pardalos, and Xanthopoulos, editors, Computational Neuroscience. Vol 38, 1-26, Springer, 2010.
 - 18 Sanchez J., Figueiredo R., Fortes J., and Principe J., "Development of Symbiotic Brain-Machine Interfaces Using a Neurophysiology Cyberworkstation", in J.A. Jacko (Ed.): Human-Computer Interaction, Part II, HCII 2009, LNCS 5611, pp. 606–615, Springer 2009.
 - 17 Erdogmus D. and Principe J., "Information Theoretic Learning", Encyclopedia of Artificial Intelligence, edited by Dorado, and Pazos, IGI Global, 2008.
 - 16 Sanchez J. and Principe J., "Optimal Signal Processing for Brain-Machine Interfaces," in Handbook of Neural Engineering, M. Akay, Ed. New York: Wiley, 2006.
 - 15 Erdogmus D., Cho J., Lan J., Motter M., Principe J., "Adaptive Local Linear Modeling and Control of Nonlinear Dynamical Systems," in Intelligent Control Systems Using Computational Intelligence
-

Techniques, Ed. A.E. Ruano (IEE Control Series 70), IEE, London, UK, 2005, pp. 119-152 (Chapter 4).

- 14 Dongming Xu, Bryan Davis, Can Ozturk, Liping Deng, Mark Skowronski, John G. Harris and Jose C. Principe, "Nonlinear Dynamics Analysis, Simulation And Implementation of an Olfactory System Model", in NeuroEngineering, Edited by Bin He, John Wiley & Sons, 2004.
 - 13 Erdogmus D., Principe J., Thogulua R., "Information Theoretic Organization Principles for Autonomous Multiple-Agents," in Cooperative Control and Optimization, S. Butenko, R. Murphrey, P. Pardalos (eds), Kluwer Academic Publishers, pp 125-143, 2003
 - 12 Principe J., Rao Y.N., Erdogmus D., "Error Whitening Wiener Filters: Theory and Algorithms," in Advances in LMS Filters, S. Haykin, B. Widrow (Eds.), 2003.
 - 11 Principe J., Lefebvre C., Fancourt C., "Learning in Coupled Lattices: an application to neural networks", Handbook of Global Optimization, Vol 2, pp 363-386, Kluwer., 2002
 - 10 Zhao Q., Principe J., Fitzsimmons J., Bradley M., Lang P., "Functional Magnetic Resonance Imaging Data Analysis with Information Theoretic Approaches, Biocomputing, Ed. Pardalos and Principe, 159-173, Kluwer, 2002.
 - 9 Principe, J., "Dynamic neural networks and optimal signal processing", in Neural Networks for Signal Processing, Yu Hu and J. Hwang Editors, CRC Press, 6-1, 6-28, 2001.
 - 8 Principe J., Wang L., Motter M., "Local Dynamic modeling with self-organizing maps and applications to nonlinear system identification and control", Intelligent Signal Processing, Simon Haykin Editor, IEEE Press, 230-271, 2001.
 - 7 Tsoi A., Back A., Principe J., Mozer M., "Memory Kernels" in Dynamic Neural Networks, Ed. Kolen and Kremer, CRC Press, 2000, 39-54.
 - 6 Principe, J., Xu D., Fisher J., Information Theoretic Learning, in Unsupervised Adaptive Filtering, Simon Haykin Editor, 265-319, Wiley, 2000.
 - 5 Candocia F., Principe J., Superresolution with Learned Local Kernels, in Multimedia Signal Processing, Editors Larsen, Guan, Kung, 67-94, CRC Press, 2000.
 - 4 Iasemidis L., Principe J., Sackellares J., "Measurement and Quantification of Spatio-Temporal Dynamics of Human Epileptic Seizures", in Nonlinear Biomedical Signal Processing, Editor M. Akay, IEEE Press, 294-316, 2000.
-

-
- 3 Harris J., Juan J., Principe J., "Analog Hardware Implementation of Continuous-time Adaptive Filter Structures, in Learning on Silicon, Adaptive VLSI Neural Systems, Editors Cauwenberghs and Bayoumi, 264-281, Kluwer, 1999.
 - 2 Principe J., Wang L., Kuo J-M., "Nonlinear Dynamic Modeling with Neural Networks", in Signal Analysis and Prediction, Ed. Prochazka et al, pp 275-289, Birkhauser 1998.
 - 1 Principe J., Celebi S., deVries B., Harris J., "Locally recurrent networks: the gamma operator, properties and extensions", in Neural Networks and Pattern Recognition, (Ed. Omidvar and Dayhoff), pp 311- 344, Academic Press, 1996.

REFEREED PUBLICATIONS- Journals

Under review

Huijse P., Estevez P., Principe J., Protopapas P., Zeger P., "Non negative matrix factorization for correntropy spectral estimation" submitted to IEEE Trans. Signal Proc., 2013.

Li K, Principe J., "Robust Automatic Speech Recognition in Reproducing Kernel Hilbert Spaces", submitted to IEEE Trans. Signal Processing

Nallathambi G., Principe J., "Signal Processing with Pulse Trains: An Algebraic Approach- Part I", submitted to IEEE Trans. Signal Processing

Nallathambi G., Principe J., "Signal Processing with Pulse Trains: An Algebraic Approach- Part II", submitted to IEEE Trans. Signal Processing

Cinar G., Principe, J., "Hierarchical Linear Dynamical Systems for Unsupervised Musical Note Recognition", submitted to Journal of Franklin's Institute.

- 2017
285 Farina D., Vujaklija I., Sartori M., Kapelner T., Negro F., Jiang N., 'Man/Machine Interface based on the Discharge Timings of Spinal Cord Motor Neurons after Target Muscle Reinnervation, accepted Nature Biomedical Eng.

- 2016
284 Ache B., Hein A., Bobkov Y., Principe J., "Smelling Time: A Neural Basis for Olfactory Scene Analysis", Trends in Neurosc. Vol 39, no. 10, pp 649-655, 2016.

- 283 Zhao, S., Chen B., Cao Z., Zhu P., Principe J., "Self-Organizing kernel adaptive filtering", accepted in Eurasip J. on Adv. In Signal Processing, 2016.

- 282 Xu G., Hu B-G., Principe J., " Robust support vector machines based on the rescaled hinge loss function", accepted in Pattern Recognition 2016.

- 281 You X., Guo w., Yu S., Li K., Príncipe J., and Tao D., "Kernel Learning for Dynamic Texture Synthesis", IEEE Trans. on Image Processing, Vol. 25, No. 10, pp. 4782-4795, Oct. 2016

- 280 Xu G., Hu B-G., Principe J., " Robust C-loss Kernel Classifiers", accepted IEEE. Trans. Neural Net. Learning Systems, 2016.

-
- 279 Chen B., Liu X., Zhao H., Zheng N., Principe J., "Insights into the Robustness of Minimum Error Entropy Estimation", accepted IEEE Trans. Neural Net. Learning Systems, 2016.
- 278 Chen B., Liu X., Zhao H., Principe J., "Maximum Correntropy Kalman Filters", Automatica, Volume 76, February 2017, Pages 70–77.
- 277 Martínez-Rego D., Fontenla-Romero O., Alonso-Betanzos A., Principe J., "Fault detection via recurrence time statistics and one-class classification", Pattern Recognition Letters, Vol 84, Pages 8–14, 2016
- 276 Chen B., Xing L., Zhao H., Zheng N., Principe J., Generalized correntropy for robust adaptive filtering. IEEE Trans. on Signal Processing, vol. 64, no. 13, pp. 3376-3387, 2016.
- 275 Choi J., Brockmeier A., Kraus L., Srinivasan A., Emigh A., Principe J., and Francis J., "Eliciting Naturalistic Cortical Responses with a Sensory Prosthesis via Optimized Microstimulation", accepted in J. of Neural Engineering, 2016.
- 274 Luan Z., Qu H., Zhao J., Chen B., Principe J., "Correntropy Induced Joint Power and Admission Control Algorithm for Dense Small Cell Network", IET Communications, Volume: 10, Issue: 16, Pages: 2154 - 2161 2016.
- 273 Chen B., Wang J., Zhao H., and Jose C. Principe, "Insights into Entropy as a Measure of Multivariate Variability", Entropy, 18(9), doi:10.3390/e18050196, 2016.
- 272 Cinar G., Principe, J., A Study of Musical Distance using a Self-organized Hierarchical Linear Dynamical System, Computer Music Journal, Fall 2016, Vol. 40, No. 3: 68–82.
- 271 Chen B. , Liang J., Zheng N., Príncipe J., "Kernel least mean square with adaptive kernel size", NeuroComputing, 95-106, doi:10.1016/j.neucom, 2016
- 270 Dura-Bernal S., Li K., Neymotin S., Francis J., Principe J. , Lytton W., "Restoring Behavior via Inverse Neurocontroller in a Lesioned Cortical Spiking Model Driving a Virtual Arm", Frontier of Neuroscience, Accepted 2016.
- 269 Brockmeier A., Principe J., "Learning Recurrent Waveforms within EEGs", IEEE Trans. Biomed. Eng., 63(1):43-54, 2016.
- 268 Wang F., Wang Y., Xu K., Li H., Liao Y., Zhang Q., Zhang S., Zheng X., Principe J., "Quantized Attention Gated Kernel Reinforcement Learning for Brain-Machine Interface Decoding", IEEE Trans. Neural Net. Learn. Sys., PP, Issue: 99, Pages: 1 - 14, 2015

-
- 267 Wang Y., She X., Liao Y., Li H., Zhang Q., Zhang S., Zheng X., Principe J., "Tracking Neural Modulation Depth by Dual Sequential Monte Carlo Estimation on Point Processes for Brain Machine Interfaces", *IEEE Trans. Biomed Eng.*, Volume: 63, Issue: 8, Pages: 1728 – 1741, 2015
- 266 Park I., Hein A., Bobkov Y., Reidenbach M., Ache B., Principe J. "Neurally Encoding Time for Olfactory Navigation", *PLoS Comp. Biol.*, Jan 5;12(1) 2016.
- 265 Liao, Y., She, X., Wang, Y., Zhang, Q., Zhang, S., Zheng, X., Principe, J., "Monte Carlo Point Process Estimation of Electromyographic Envelopes from Motor Cortical Spikes for Brain Machine Interfaces" *J. of Neuro Eng.*, Oct 15;12(6):066014. Epub., 2015.
- 264 Chen L., Qu H., Zhao J., Chen B., Principe J., "Efficient and Robust Deep Learning with Correntropy Induced Loss Function". *Neural Computing and Applications*, Volume 27, Issue 4, pp 1019–1031.
- 263 Ma W., Chen B., Zhao H., Gui G., Duan J., Principe J., "Sparse least logarithmic absolute difference algorithm with correntropy induced metric penalty". *Circuit, Systems and Signal Processing*, Volume 35, Issue 3, pp 1077–1089.
- 262 Wu Z., Peng S., Chen B., Zhao H., Principe J., "Proportionate Minimum Error Entropy Algorithm for Sparse System Identification". *Entropy*, 2015, 17(9), 5995-6006.
- 261 Wu Z., Peng S., Ma W., Chen B., Principe J., "Minimum Error Entropy Algorithms with Sparsity Penalty Constraints", *Entropy*, 17(5), 3419-3437, 2015.
- 260 Zhang Y., Chen B., Yuan Z., Principe J., "Convergence of a Fixed-Point Minimum Error Entropy Algorithm", *Entropy* 17 (8), 5549-5560, 2015
- 259 Chen B., Wang J., Zhao H., Zheng N., Príncipe J., "Convergence of a Fixed-Point Algorithm under Maximum Correntropy Criterion", *IEEE. Sig Proc. Letters*, 22 (10): 1723-1727, 2015.
- 258 Chen B., Xing L., Wu Z., Liang J., Príncipe J., Zheng N., "Smoothed Least Mean p -Power Error Criterion for Adaptive Filtering", *Signal Processing*, vol. 40, 154-163, 2015.
- 257 Vidal A., Tavares V., Príncipe J., "An Adaptive Signal Processing Framework for PV Power Maximization", in *Circuits, Systems and Signal Processing*, pp 1-20, Feb 2015.
- 256 Bae J., Sanchez Giraldo L., Pohlmeier E., Francis J., Sanchez J., and Príncipe J., "Kernel Temporal Differences for Neural Decoding",

- Computational Intelligence and Neuroscience, Vol 2015, ID 481375, 17 pages, <http://dx.doi.org/10.1155/2015/481375>,
- 255 Li Kan, Principe J., "Kernel Adaptive Auto-Regressive Moving Average Algorithm", IEEE Trans. Neural Networks and Learning Systems, Volume: 27, Issue: 2, 334 – 346, 2015
- 254 Hazrati M., Miskovic V., Keil A., and Príncipe J., Quantifying functional connectivity in frequency tagged cortical networks during active harm avoidance" Brain Connectivity 5(5):292-302, 2015.
- 253 Protopapas P., Huijse P., Estevez P., Zeger P., Principe J., Marquette J. "A Novel, Fully Automated Pipeline for Period Estimation in the EROS 2 Data Set", Astrophysical J. Supplement Series, vol 216, #2, 25-39, 2015
- 252 Principe J., Chen B., "Universal Approximation with Convex Optimization: Gimmick or Reality", IEEE Computation Intelligent Magazine, vol. 10, no. 2, pp. 68-77, 2015.
- 251 Chakrabarti S., Bongiovanni T., Judge J., Nagarajan K., Principe J., "Downscaling Satellite based Soil Moisture using High Resolution Remote Sensing Products and Information Theory", IEEE Trans. Geoscience and Remote Sensing, vol 53, #1, 85-101, Jan 2015.
- 250 Principe J., Brockmeier A." Representing and Decomposing Neural Potential Signals", Current Opinion in Neurobiology, Volume 31, April 2015, Pages 13-17
- 249 Sanchez-Giraldo L., Rao M., and Principe J., "Measures of Entropy from Data Using Infinitely Divisible Kernels", IEEE Trans. Info Theory, Volume: 61, # 1, Page(s): 535- 548, 2015.
- 248 Chalasani, R. and Principe, J.C, "Self Organizing Maps with Information Theoretic Learning", Neurocomputing vol 147, 3–14, 2015.
- 247 Chalasani, R., and Principe, J.C, "Context Dependent Encoding with Convolutional Dynamic Network", IEEE Neural Networks and Learning Systems, 26(9):1992-2004, 2015 (**Spotlight in IEEE Computational Intelligence Magazine**).
- 246 Emigh M., Kriminger E., Brockmeier A., Pardalos P., Principe J., "Reinforcement Learning in Games using Nearest Neighbor Interpolation and Metric Learning", IEEE Trans. AI and Games, 10.1109/TCIAIG.2014.2369345, 2014
- 245 Tavares V., Duarte C., Oliveira P. and J. Príncipe, " Filter & Hold: A Mixed Continuous-/Discrete-Time Technique for Time-Constant Scaling", Int. J. Circuit The. And Appl., DOI: 10.1002/cta.2046

-
- 244 Martins A., Principe J., "New Clustering Separation Measure Based on Negentropy", J. Control Auto. & Elect. Syst., DOI 10.1007/s40313-014-0155-1, 2014.
- 243 Ruano A., Ge S., Guerra T., Lewis F., Principe J., Colnaric H., Computational Intelligence in Control, J. Annual Rev. in Control, accepted 10.1016/j.arcontrol.2014.09.0006, 2014
- 242 Craciun S., Kirchgessner R., George, A., Lam H., Principe J., "A Real-Time, Power-Efficient Architecture for Mean-Shift Image Segmentation", in J. Real-Time Image Proc. , dx.doi.org/10.1007/s11554-014-0459-1
- 241 Kriminger E., Cobb J., Principe J., "Online Active Learning for Automatic Target Recognition", in IEEE Trans. Oceanographic Eng., vol.PP, no.99, pp.1,9, doi: 10.1109/JOE.2014.2340353, 2014.
- 240 Chen B., Wang G., Zheng N., Principe J., "An Extended Result on the Optimal Estimation under Minimum Error Entropy Criterion", Entropy 16(4), 2223-2233, 2014.
- 239 Chen B., Xing L., Liang J., Zheng N., Príncipe J., "Steady-state Mean-square Error Analysis for Adaptive Filtering under the Maximum Correntropy Criterion", IEEE Signal Proc. Letters, Vol 21, #7, 880-884, July 2014.
- 238 Hasanbelliu E., Sanchez Giraldo L., and Principe J., "Information Theoretic Shape Matching", IEEE Pattern Analysis and Machine Intelligence, Vol. 36 , # 12, 2436 – 2451, 2014.
- 237 Huijse P., Estevez P., Protopapas P., Principe J., and Zegers P., "Computational Intelligence Challenges and Applications in Large-Scale Astronomical Time Series Databases", IEEE Comp. Intel. Magazine, August 27-39, 2014.
- 236 Li L., Brockmeier A., Choi J., Francis J., Sanchez J., Principe J., "A tensor product kernel framework for multiscale neural activity decoding and control", Computational Intelligence and NeuroScience, vol. 2014, Article ID 870160, doi:10.1155/2014/870160 16 pages.
- 235 Principe J. Chalasani R., "Cognitive Architecture for Sensory Processing", Proceedings of the IEEE, vol 102, #4, 514-525, 2014
- 234 Brockmeier A., Choi J., Sanchez Giraldo L., Kriminger E., Francis J., Principe J., "Neural Decoding with kernel based metric learning", Neural Computation, vol 26, #6, 1080-1107, 2014.
- 233 Park I., Bobkov Y., Ache B., and Principe J., "Intermittency coding in the primary olfactory system: A neural substrate for olfactory scene analysis" J. of Neuroscience, 34(3): 941-52, 2014.

232 Nallathambi G., Principe J., "Integrate and Fire Pulse Train Automaton for QRS detection" IEEE Trans. Biomed Eng., vol 61, #2, 317-326, 2014

231 Seth S., Principe J., "Learning dependence from samples", Int. J. Bioinformatics Research and Applications, 10, #1, 43-58, 2014.

230 Principe J., "Neural Signal Processing in BMIs", IEEE Computational Intel. Magazine 28 (5), 38-40.

229 Syed M., Pardalos P., and Principe J., "Invexity of the Minimum Error Entropy Criterion", IEEE Signal Proc. Letters vol 20, #12, 1159 – 1162.

228 Park I.J., Bobkov Y., Ache B., Principe J., "Quantifying Bursting Neuron Activity from Calcium Signals with Blind Deconvolution", J. of NeuroScience Methods, Volume 218, Issue 2, pp 196–205.

2013

227 Principe J., "The Cortical Mouse", IEEE Pulse, July/August, pp 26-29.

226 Singh A., Principe J., "The C-loss Function for Pattern classification", Pattern Recognition, #1, vol 47, 441-453, 2014

225 Carvalho, A. Tavares, J., Principe, J., " A Novel Nonparametric Distance Estimator for Densities with Error Bounds", Entropy, 2013, 15(5), 1609-1623; 2013

224 Zhu P., Chen B., Principe J., "Learning Nonlinear Generative Models of Time Series with a Kalman Filter in RKHS", IEEE Trans. Signal Proc., Vol 62, # 1, 141-155, 2014

223 Zhao S., Chen B., Zhu P., and Principe J., "Fixed Budget Quantized Kernel Least-Mean-Square Algorithm", Signal Processing, Volume 93, Issue 9, September 2013, Pages 2759–2770

222 Syed N., Pardalos P., Principe J., "On the Optimization Properties of the Correntropic Loss Function in Data Analysis", Optimization Letters, DOI 11.1007/s11590-013-0626-5.

221 Park I., Seth S., Paiva A., Li L., Principe J., "Kernel methods on spike train space for neuroscience: a tutorial", IEEE SP Magazine, 149-160, June 2013.

220 Fadlallah B., Chen B., Principe J., "Weighted Permutation Entropy: An Improved Complexity Measure for Time Series", Physical Review E., vol. 87, #2, 320-327.

219 Chen B., Principe J., "On the Smoothed Minimum Error Entropy Criterion", Entropy, 14(11), 2311-2323, 2012

218 Chen B., Zhao S., Zhu P., Príncipe J., Mean square convergence analysis for kernel least mean square algorithm. Signal Processing 92(11): 2624-2632 (2012)

2012

-
- 217 Chen B., Zhao P., Príncipe J., Quantized Kernel Least Mean Square Algorithm. *IEEE Trans. Neural Netw. Learning Syst.* 23(1): 22-32 (2012)
- 216 Chen B., Príncipe J., Maximum Correntropy Estimation is a Smoothed MAP Estimation. *IEEE Signal Process. Lett.* 19(8): 491-494 (2012)
- 215 Syed M., Príncipe J., Pardalos P., "Correntropy in Data Classification" in *Dynamics of Information Systems: Mathematical Foundations*, Springer Proc. in Mathematics & Statistics, Vol. 20, Part 1, 81-117, 2012.
- 214 Li, L., Park I. Brockmeier, A. ; Chen B.; Seth, S. ; Francis, J.T. ; Sanchez, J.C. ; Príncipe, J.C. "Adaptive Inverse Control of Neural Spatiotemporal Spike Patterns with a Reproducing Kernel Hilbert Space (RKHS) Framework", *IEEE T. Neural Sys. Rehab. Eng.*, vol 21, #4, 532-543, 2013.
- 213 Fadlallah B., Seth S., Keil A. and Príncipe J., "Quantifying Cognitive State From EEG Using Dependence Measures," *IEEE Trans. Biomed Eng.*, vol. 59, #10, 2773-2781, Oct 2012.
- 212 Huijse P., Esteves P., Protopapas P., Zegers P., and Príncipe J., "An Information Theoretic Algorithm for Finding Periodicities in Stellar Light Curves", *IEEE Trans. Signal Proc.*, vol 60, #10, 5135- 5145
- 211 Seth S., Príncipe J., "Generalized Conditional Association", *Neural Computation*, Vol. 24, # 7, 1882-1905, July 2012.
- 210 Zhu P., Chen B., Príncipe J., "A novel extended kernel recursive least squares algorithm", *Neural Networks* Volume 32, Pages 349–357, Aug 2012
- 209 Park M., Seth S., Rao M., Príncipe J., "Strictly positive definite kernels for point process divergences" *Neural Computation*, Vol 24 Issue 8, 2223-2250, August 2012.
- 208 Singh A., Lakshminarayan C., Príncipe J., "Time-based Compression and Classification of Heartbeats", *IEEE. Trans. Biomed Eng.*, vol 59, #6, 1641-1648.
- 207 Bobhov Y., Park I., Príncipe J., Acke B., "Cellular basis for response diversity in the olfactory periphery", *PLoS ONE*, 7(4): e34843. doi:10.1371/journal.pone.0034843, published Apr 13, 2012
- 206 Sanchez J., Lytton W., Carmena J., Príncipe J., Fortes J., Barbour R., and Francis J., "Hybrid Computational and Biological Tools for Dynamically Repairing and Replacing Neural Networks", *IEEE Pulse*, Jan;3(1):57-9, 2012

- 205 Chen B., Zhu P., Príncipe J., "Survival information potential: a new criterion for adaptive system training", IEEE Trans. Neural Networks, 60 (3): 1184 - 1194.
- 204 Chen B., Zhu Y., Hu J., Príncipe J., "A Variable Step-Size SIG Algorithm for Realizing the Optimal Adaptive FIR Filter", Int. J. of Control, Automation and Systems, Vol 9, # 6, 1049-1055.
- 203 Li L., Park I., Seth S., Sanchez J., Príncipe J., "Functional Connectivity Dynamics Among Cortical Neurons: A Dependency-Graph Analysis", IEEE Trans. Neural Syst. Rehab Eng., 20 (1): 18 - 30.
- 202 Kampa K., Hasanbelliu E., Cobb J., Príncipe J., Slatton C., "Deformable Bayesian Network: A Novel Framework for Sensor Fusion", IEEE Trans. of Ocean. Eng., 37 (2): 166 - 184.
- 201 Seth S., Príncipe J., "Assessing Granger non-causality based on nonparametric measure of conditional independence", IEEE Trans. Neural Networks, 23(1): 47 - 59 2012.
- 200 Chen B., Príncipe J., Zhu Y., Hu J., "Stochastic Information Gradient Algorithm with Generalized Gaussian Distribution Model" Journal of Circuits, Systems, and Computers Vol. 21, No. 1, 1-16, 2012
- 199 Daza-Santacoloma G., Castellanos-Dominguez G., Príncipe J., "Locally Linear Embedding based on Correntropy Measure for Visualization and Classification", NeuroComputing, vol 80, 19-30, 2012.
- 198 Chen B., Zhu Y., Hu J., Príncipe J., "Stochastic gradient identification of Wiener system with maximum mutual information criterion", IET Signal Process., Vol. 5, # 6, pp. 589–597, 2011.
- 197 Seth S., Rao M., Park I., Príncipe J., "A unified framework for quadratic measures of independence", IEEE. Trans. Signal Proc. Vol 59, #8, 3624-3635, 2011
- 196 Lucena F, Barros AK, Príncipe JC, Ohnishi N (2011) Statistical Coding and Decoding of Heartbeat Intervals. PLoS ONE 6(6): e20227. doi:10.1371/journal.pone.0020227, 2011
- 195 Huijse P., Estevez P., Zegers P., Príncipe J., and Protopapas P., "Period Estimation in Astronomical Time Series Using Slotted Correntropy", IEEE Signal Proc. Letters, vol 18, #6, 371-374, 2011.
- 194 Chen B., Zhu Y., Hu J., Jose C. Príncipe, "D-Entropy: Definition, Properties and Applications in System Identification with Quantized Data", Info. Science, Vol 181, # 7, 1 Pages 1384-1402, 2011.
- 193 Seth S., Park II, Brockmeier A., Semework M., Choi J., Francis J., Príncipe J., "A Novel Family of Non-parametric Cumulative Based Divergences for Point Processes", Proc NIPS 23, 2119-2127, 2011

2010

- 192 Jarchi, D., Sanei, S., Principe J., and Makkiabadi B., "A New Spatiotemporal Filtering Method for Single-Trial Estimation of Correlated ERP Subcomponents", IEEE Trans. Biomedical Eng., vol 58,#1, 132-143, 2011.
- 191 Xia, Y., Beth J. Van Hulle, M., Principe, J., Mandic, D., "Augmented Echo State Network for Nonlinear Adaptive Filtering of Complex Noncircular Signals", IEEE Trans. Neural Networks, vol 22, #1, 74-83, 2011.
- 190 Craciun S., Cheney D., Gugel K., Sanchez J., Principe J., "Wireless Transmission of Neural Signals using Entropy and Mutual Information Compression", IEEE Trans. Neural Syst. Rehab. Eng., vol 19, #1, 35-44, 2011
- 189 Wang Y., Sanchez J., Principe J., "Instantaneous Estimation of Motor Cortical Neural Encoding for online Brain-Machine Interfaces", J. of Neural Engineering, vol 7, #5 doi:10.1088/1741-2560/7/5/056010, 2010.
- 188 Rao M., Xu J., Seth S., Chen Y., Tagare M., Principe J., "A Test of Independence Based on a Generalized Correlation Function", Signal Processing, Volume 91, Issue 1, Pages 15-27, 2010. **Top 25 list**
- 187 Santana E., Principe J., Santana E., Freire R. and Barros A., "Extraction of Specific Signals with Temporal Structure using Kernel Methods", IEEE Trans. Signal Proc. vol 58, #10, 5142-5150, 2010.
- 186 Singh A., Principe J., "Information Theoretic Learning with Adaptive Kernels", Signal Processing, Volume 91, Issue 2, 203-213, 2010. **(Top 25 list)**

2009

- 184 Darmanjian S., Principe J., "Spatial-temporal Clustering of Neural data using Linked Mixtures of HMMs", Eurasip J. on Advances in Sig Proc., Article ID 892461, 16 pages, doi:10.1155/2009/892461, 2009.
- 183 Feichtinger H., Principe J., Romero L., Singh A., Velasco G., "Approximate reconstruction of bandlimited functions for the integrate and fire sampler", Advances in Computational Math, Volume 36 Issue 1, pp 67-78. 2012.
- 182 Paiva A., Park I., Principe J., "A comparison of binless spike train measures, " Neural Computing and Applications, Volume 19, Issue 3, Page 405-414, 2009.
- 181 DiGiovanna, J., Rattanatamrong P., Zhao M., Mahmoudi B., Hermer L., Figueiredo R., Principe J., Fortes J. and Sanchez J. "Toward a

-
- CyberWorkstation for Computational Neuroscience," Frontiers in Neuroengineering, doi:10.3389, 2009.
- 180 Liu W., Park I., Principe J., "An information theoretic approach of designing sparse kernel adaptive filters," IEEE Trans. on Neural Networks, Vol. 20, # 12, 1950-1961, 2009.
- 179 Gunduz A., Sanchez J., Carney P., Principe J., Mapping broadband electrocorticographic recordings to two-dimensional hand trajectories in humans: Motor control features", Neural Networks 22(9): 1257-1270, 2009.
- 178 Wang, Y., Principe J., Sanchez J.: Ascertaining neuron importance by information theoretical analysis in motor Brain-Machine Interfaces. Neural Networks 22(5-6): 781-790, 2009.
- 177 Liu W., Park I., Wang Y., Principe J., "Extended Kernel Recursive Least Squares Algorithm", IEEE Trans. Signal Proc., Vol. 57, # 10, 2009
- 176 Sanchez J., Mahmoudi B., DiGiovanna J., Principe J., "Exploiting Co-Adaptation for the Design of Symbiotic Neuroprosthetic Assistants", Neural Networks, vol. 22, pp. 305-315, 2009.
- 175 Wang Y., Paiva A., Príncipe J., Sanchez J., "Sequential Monte Carlo Estimation of Point Processes on Kinematics from Neural Spiking Activity for Brain Machine Interfaces", Neural Computation 21(10): 2894-2930, 2009.
- 174 Chang S., Wu H-C, Neubrander F., Principe J., "Theories, Analysis and Bounds of the Finite-Support Approximation for the Inverses of Mixing-Phase FIR Systems", IEEE Trans. Circuits and Systems, Vol. 56 , #10: 2181 - 2194, 2009.
- 173 Pokharel P., Liu W., Principe J., "A low complexity robust detector in impulsive noise" Signal Processing, Vol. 89, #10, pages 1902-1909, 2009.
- 172 Li R., Keil A., Principe J., "Single-trial P300 estimation with a spatiotemporal filtering method", Journal of Neuroscience Methods, Volume 177, Issue 2,Pages 488-496, 2009
- 171 Euliano T, Marossero D, Nguyen M, Euliano N, Principe J, Edwards R., "Spatiotemporal electrohysterography patterns in normal and arrested labor", Am J Obstet Gynecol ; vol 200, #1, pp 1-3, (**Editor Choice Article**), 2009.
- 170 Nair S., Shiau D., Principe J., Iasemidis L., Pardalos P., Norman W., Carney P., Kelly K., Sackellares C., "An Investigation of EEG Dynamics in an Animal Model of Temporal Lobe Epilepsy Using the Maximum Lyapunov Exponent", Experimental Neurology, vol. 216, #1, pp. 115-121, Elsevier, 2009.
-

2008

- 169 Rao, S., Martins A., Principe J., "Mean Shift: An Information Theoretic Perspective" Pattern Recognition Letters, Volume 30, Issue 3, #1, pp 222-230, 2009
- 168 Ozturk M., Principe J., "Freeman's K models as Reservoir Computer Architectures", New Mathematics and Natural Computing Journal, vol 1, pp 265-286, DOI: 10.1142S179300570900126X, 2009
- 167 Jeong K-H, Liu W., Principe J., "The correntropy MACE filter", Pattern Recognition Volume 42, Issue 5, pp 871-885, 2009.
- 166 Pokharel P., Liu W., Principe J., "Kernel Least Mean Square Algorithm with Constrained Growth", Signal Processing Volume 89, Issue 3, pp 257-265, 2009
- 165 Dockendorf, K. P., Park, I. I., He, P., Principe, J. C., & DeMarse, T. B. "Liquid state machines and cultured cortical networks: The separation property", Biosystems Volume 95, Issue 2, Pages 90-97, 2009
- 164 Gunduz A., Principe J., "Correntropy as a Novel Measure for Nonlinearity Tests", Signal Processing Volume 89, Issue 1, Pages 14-23, 2009
- 163 Li R., Principe J., Bradley M., Ferrari V., "A novel spatiotemporal filtering methodology for single-trial ERP estimation", IEEE Trans. Biomedical Eng., vol 56,#1, 83-92, 2009.
- 162 DiGiovanna J., Mahmoudi B., Fortes J., Principe J., Sanchez J., "Co-adaptive Brain Machine Interface via Reinforcement Learning", IEEE Trans. Biomed. Eng., vol 56,#1, 54-64., 2009
- 161 Paiva A., Park I., Príncipe J. and DeMarse T., "A Reproducing Kernel Hilbert Space framework for Spike Train Signal Processing", Neural Computation, vol 21, #3, 424-449, 2009.
- 160 Wu H-C, Wu Y., Principe, J.C., Wang X., "Robust switching blind equalizer for wireless cognitive receivers", IEEE Trans. Wireless Communications, Vol. 7 , #5 , Part: 1: 1461 - 1465, 2008.
- 159 Xu J., Paiva A., Park I., Principe J., "A Reproducing Kernel Hilbert space framework for information-theoretic learning", IEEE Trans. Signal Processing Volume 56, Issue 12, Page(s):5891 - 5902, 2008
- 158 Sanchez J., Gunduz A., Carney P., and J. Principe, "Extraction and localization of mesoscopic motor control signals for human ECoG neuroprosthetics," in Journal of Neuroscience Methods – Special Issue on BCI, Volume 167, Issue 1, Pages 1-126, 2008.
- 157 Xu J., Principe J., "A Pitch Detector Based on a Generalized Correlation Function", IEEE Trans. on Audio, Speech and Language Processing, Volume 16, Issue 8, Page(s):1420 - 1432, 2008.

-
- 156 Liu W., Principe J., "Kernel Affine Projection Algorithms", European J. of Signal Processing, Special Issue on Machine Learning for Signal Processing, vol 208, 216834, 2008.
- 155 Darmanjian S., Principe J., "Boosted and Linked Mixtures of HMMs for Brain Machine Interfaces", European J. of Signal Processing, Special Issue on Machine Learning for Signal Processing, vol 208, 216453, 2008.
- 154 Wu H-C., Wu Y., Principe J., Wang X., "Robust Equalizer for Wireless Cognitive Receivers", IEEE Trans. Wireless, Volume 7, Issue 5, Part 1, Page(s):1461 - 1465, 2008.
- 153 Xu J., Bakardjian H., Cichocki A., and Principe J., "A New Nonlinear Similarity Measure for Multichannel Signals", Neural Networks (invited paper), Volume 21, Issues 2-3, Pages 222-231, 2008.
- 152 Jeong K-H. and Principe J., "Enhancing the Correntropy MACE filter with Random Projections" Neurocomputing, Volume 72, Issues 1-3, Pages 102-111, 2008.
- 151 Park I., Paiva A., DeMarse T., Principe J., "An efficient algorithm for continuous time cross correlogram of spike trains", J. of Neuroscience Methods, Volume 168, Issue 2, 15 Pages 514-523, 2008.
- 150 Sanchez J., Principe J., Nishida T., Bashirullah, Harris J., Fortes J., "Technology and Signal Processing for BMIs", IEEE SP Magazine, vol 25, #1, pp 29-40, 2008.
- 149 Hedge A., Principe J., Sackellares C., "A clustering approach to quantify long term dependences in epileptic intracranial EEG", special issue on EEG/MEG analysis, J. of Computational Intelligence in NeuroScience, Article ID 83416, 18 pages, 2008.
- 148 Liu W., Pokarel P., Principe J., "The Kernel LMS Algorithm", IEEE Trans. Signal Processing, Volume 56, Issue 2, Page(s):543 - 554, 2008.
- 147 Jenssen R., Erdogmus D., Hild II K., Principe J., and Eltoft T., "Information Cut for Clustering using a Gradient Descent Approach," Pattern Recognition, 40, pp 796-806, 2008.
- 146 Han S., Rao S., Erdogmus D., Principe J., "A minimum error entropy algorithm with self adjusting stepsize (MEE-SAS)", Signal Processing 87, 2733-2745, 2007.
- 145 Ozturk M., Principe J., "An Associative Memory Readout for ESN and LSM for Dynamical Pattern Recognition" Neural Networks, Special Issue on Echo State Machines, Volume 20, Issue 3, 377-390, 2007.

- 144 Ozturk M., Xu D., and Principe J., "Analysis and Design of Echo State Networks for Function Approximation" Neural Computation, 19,#1, 111-138, 2007.
- 143 Li R., Liu W., Principe J., "A unifying criterion for blind source separation based on correntropy", Signal Processing, Special Issue on ICA, vol 87 , #8, 1872-1881, 2007.
- 142 Cho J., Paiva A., Kim J-P., Sanchez J., Principe J., "Dynamic Learning of a SOM For Low Bandwidth Signal Reconstruction", Neural Networks, Volume 20, Issue 2, Pages 274-284, 2007.
- 141 Cho J., Principe P., Erdogmus D. and Motter M., "Quasi-Sliding Mode Control Strategy Based on Multiple-Linear Models," NeuroComputing Volume 70, Issues 4-6, pages 960-974, 2007.
- 140 Liu W., Pokharel P., Principe J., "Correntropy: Properties and Applications in Non Gaussian Signal Processing", IEEE Trans. Sig. Proc., vol 55; # 11, pages 5286-5298, 2007.
- 139 Huang X., Wu H-C., Principe J., "Robust Blind Beamforming Algorithm Using Joint Multiple Matrix Diagonalization" IEEE Sensor Journal, Volume 7, Issue 1, Jan. 2007 Page(s):130 - 136, 2007
- 138 Hu J., Gao J., and Principe J., "Analysis of biomedical signals by the Lempel-Ziv complexity: the effect of finite data size", accepted IEEE Trans. Biomedical Eng. vol 53 #12 (Pt 2):2606-9, 2006.
- 137 Jenssen R., Principe J., Erdogmus D. and Eltoft T., "The Laplacian Classifier," IEEE Transactions on Signal Processing, vol 55, #7, 3262-3271, 2006.
- 136 Hild K., Erdogmus D., Principe J., "An Analysis of Entropy Estimators for Blind Source Separation," Signal Processing, Vol. 86, No. 1, pp. 182-194, 2006.
- 135 Hild K., Erdogmus D., Torkkola K., Principe J., "Sequential Feature Extraction Using Information Theoretic Learning," IEEE Trans on Pattern Analysis and Machine Intelligence, vol 28,#9, 1385-1393, 2006.
- 134 Erdogmus D., Jenssen R., Rao Y. and Principe J., "Gaussianization: An Efficient Multivariate Density Estimation Technique for Statistical Signal Processing," Journal of VLSI Signal Processing, 45, pp. 67-83, 2006 (Invited Paper), 2006.
- 133 Barros A., Principe J., Takeuchic Y., Ohnishi N., "Using non-linear even functions for error minimization in adaptive filters", Neurocomputing 70 (2006) 9–13, 2006.
- 132 Jenssen R., Principe J., Erdogmus D. and Eltoft T., "The Cauchy-Schwartz Divergence and Parzen Windowing: Connections to Graph

- Theory and Mercer Kernels," Journal of the Franklin Institute, 343, pp 614-629 (Invited paper as ICASSP 2005 Student Paper Award Winner), 2006.
- 131 Kim, S-P., Sanchez, J. and Principe, J., "Real time input subset selection for linear time-variant MIMO systems", Optimization Methods and Software, Volume 22, #1, 83 – 98, 2006.
 - 130 Jenssen R., Erdogmus D., Principe J., Eltoft T., "Some Equivalence between Kernel and Information Theoretic Methods", in J. VLSI Signal Processing, 45, pp 49-65, 2006.
 - 129 Kim S-P., Sanchez J., Rao Y., Erdogmus D., Carmena J., Lebedev M., Nicolelis M., and Principe J. "A comparison of optimal MIMO linear and nonlinear models for brain-machine interfaces", J. of Neural Engineering, Vol. 3, pp. 145-161, 2006.
 - 128 Sackellares C., Shiau D-S, Principe J., Yang M., Dance L., Suharitdamrong W., Chaovalltwongse W., Pardalos P., Iaseomidis L., "Predictability Analysis for an Automated Seizure Prediction Algorithm", Journal of Clinical Neurofisiologia: vol. 23(6), pp. 509-520, 2006
 - 127 Erdogmus D., Principe J. "From Linear Adaptive Filtering to Nonlinear Signal Processing" IEEE SP Magazine, vol 23, pp 14-33.
 - 126 Sanchez J., Mareci T., Norman W., Principe J., Ditto W., and Carney P., "Evolving into epilepsy: Multiscale electrophysiological analysis and imaging in an animal model", Experimental Neurology, Volume 198, Issue 1, Pages 31-47, 2006.
 - 125 Santamaria I., Pokharel P., Principe J., "Generalized Correlation Function: Definition, Properties and Application to Blind Equalization", IEEE Trans. Signal Proc. vol 54, no 6, pp 2187- 2186, 2006.
 - 124 Hild K., Erdogmus D., Principe J., "Experimental Upper Bound for the Performance of Convulsive Source Separation Methods" IEEE Trans. Signal Processing, vol 54, #2, 627-635, 2006.
 - 123 Cho J., Principe J., Erdogmus D. and Motter M., "Modeling and Inverse Controller Design for an Unmanned Aerial Vehicle Based on the Self-Organizing Map," IEEE Transactions on Neural Networks, Volume 17, Issue 2, Page(s):445 - 460, 2006.
 - 122 Jeong K-H, Xu J., Erdogmus D., Principe J., "A New Classifier based on Information Theoretic Learning with Unlabeled Data", Special Issue Neural Networks, vol 18, # 5-6, pp 719-726, 2005.
 - 121 Hild K., Pinto D., Erdogmus D., and Principe J., "Convulsive blind source separation by minimizing mutual information between

-
- segments of signals," IEEE Trans. Circuits and Systems--I, Vol. 52, No. 10, pp. 2188-2196, 2005.
- 120 Xu D. and Principe J., "Computation in a Reduced KII Network Based on Synchronization," International Journal of Intelligent Systems, vol 21 #9 , 919-935, 2005.
- 119 Zheng Y., Gao JB, Principe J., Sanchez J., Okun MS., "Multiplicative multifractal modeling of human neuronal activity", Phys. Lett A.344: 253-264, 2005.
- 118 Hegde A., Erdogmus D., Principe J., Sackellares C., "Quantifying Spatio-Temporal Dependencies in Epileptic ECOG", Signal Processing, Special Issue on MultiDimensional Signal Processing, 85:2082-2100, 2005.
- 117 Fontenla-Romero O., Erdogmus D., Principe J., Alonso-Betanzos A., and Castillo E, "Linear least-squares based methods for neural networks learning". Lecture Notes in Computer Science, 2714, pp 84-91, 2005.
- 116 Rao Y., D. Erdogmus, G.Y. Rao, J.C. Principe, "Fast Error Whitening Algorithms for System Identification and Control with Noisy Data," Neurocomputing, 69:158-181, 2005.
- 115 Erdogmus D., Agrawal R., Principe J., "A mutual information extension to the matched filter", Signal Processing, vol 85, #5, 927-936, 2005.
- 114 Teixeira A., Martinez R., Silva L., Jesus L., Principe J., Vaz F., "Simulation of Human Speech Production Applied to the Study and Synthesis of European Portuguese" EURASIP Journal on Applied Signal Processing 2005:9, 1–15, 2005.
- 113 Lebedev, M., Carmena J., Principe J., Nicolelis M., "Cortical Ensemble Adaptation to Represent Velocity of an Artificial Actuator Controlled by a Brain Machine Interface" J. of NeuroScience, 25(19):4681-4693, 2005.
- 112 Johnson M., Principe J., "Modeling and Detection of Limit Cycle Oscillations in Thin-Wing Aircraft Using Adaptable Linear Models", AIAA Journal of Aircraft, vol 42, #6, 1576-1588, 2005.
- 111 Lan J., Cho J., Erdogmus D., Principe J., Motter M., Xu J., "Local Linear PID Controllers for Nonlinear Control", Int. J. of Cont. and Int. Syst. Special Issue Nonlinear Adaptive PID Controls, vol 33, #1, 26-35, 2005.
- 110 Lehn-Schioler T., Hegde A., Erdogmus D., Principe J. C., "Information Theoretic Vector-Quantization," Natural Computation, vol 4 #1, 39-51, 2005.

2004

- 109 Rao Y.N., Erdogmus D., Principe J.C., "An Error Whitening Criterion for Adaptive Filtering" IEEE Transactions on Signal Processing, vol 53, #3, 1057-1069, 2005.
- 108 Zhang, H, Balaban, MO, Principe, JC, Portier, K. "Quantification of Spice Mixture Compositions with Electronic Nose, Part I. Data Analysis using Neural Networks", Journal of Food Science, Vol.70, Nr.4, E254-E258, 2005.
- 107 Kim S., Rao Y., Erdogmus D., Sanchez J., Nicolelis M., Principe J., "Determining Patterns in Neural Activity for Reaching Movements Using Non-Negative Matrix Factorization," EURASIP Journal on Applied Signal Processing,(19), pp. 3113-3121, 2005.
- 106 Lazaro M., Santamaria I., Erdogmus D., Hild II K., Pantaleon C., Principe J., "Stochastic Blind Equalization Methods Based on PDF Fitting Using Parzen Estimator," IEEE Transactions on Signal Processing, vol 53, #2, 696-704, 2005.
- 105 Erdogmus D., O. Fontenla-Romero, J.C. Principe, A. Alonso-Betanzos, E. Castillo, "Linear-Least-Squares Initialization of Multilayer Perceptrons Through Backpropagation of the Desired Response," IEEE Transactions on Neural Networks, Volume 16, Issue 2, 325 - 337, 2004.
- 104 Erdogmus D., Yan R., Larsson E., Principe J., Fitzsimmons J., "Image Construction Methods for Phased Array Magnetic Resonance Imaging," in Journal Magnetic Resonance Imaging, vol. 20, pp. 306-314, 2004.
- 103 Erdogmus D., Yan R., Larsson E., Principe J., Fitzsimmons J., "Measuring the Signal-to-Noise-Ratio in Magnetic Resonance Imaging: A Caveat," Signal Processing, vol. 84, no. 6, pp. 1035-1040, 2004.
- 102 Sanchez J., Carmena J., Erdogmus D., Lebedev M., Nicolelis M., Harris J., and Principe J., "Ascertaining the Importance of Neurons to Develop Better Brain Machine Interfaces," IEEE Transactions on Biomedical Engineering, vol 51, #6, 943-53, 2004.
- 101 Erdogmus D, Hegde A., Rao Y.N., Peddaneni H., Ozertem U., Principe J., "Perturbation-Based Eigenvector Updates for On-Line Principal Components Analysis and Canonical Correlation Analysis," JVLSI Signal Processing Systems, vol. 45, no. 1-2, pp. 85-95(Invited paper for MLSP'04 special issue), 2004
- 100 Erdogmus D., Hild II K., Rao Y., Principe J., "Minimax Mutual Information Approach for Independent Components Analysis," Neural Computation, vol. 16, no. 6, pp. 1235-1252, 2004.

2003

- 99 Erdogmus D., K.E. Hild II, M. Lazaro, I. Santamaria, J.C. Principe, "Adaptive Blind Deconvolution of Linear Channels Using Renyi's Entropy with Parzen Estimation," in IEEE Trans. on Signal Processing, vol. 52, no. 6, pp. 1489-1498, 2004.
- 98 Xu D., J. Principe, "Dynamical analysis of the reduced KII set in the Olfactory System", IEEE Trans. Neural Networks, Special Issue on Dynamical Neural Networks, Vol. 15, No. 5, pp. 1053-1062, 2004.
- 97 Morejon R., Principe J., "Advanced Parameter Search Algorithms for Information-Theoretic Learning", IEEE Transactions on Neural Networks Special Issue on Information Theoretic Learning, vol 15, #4, 874- 884, 2004.
- 96 Rao Y.N., Principe J.C., Wong T.F., "Fast RLS-like Algorithm for Generalized Eigendecomposition and its Applications," Journal of VLSI Signal Processing vol. 37, pp. 333-344, 2004.
- 95 Erdogmus D., E.G. Larsson, R. Yan, J.C. Principe, J.R. Fitzsimmons, "Asymptotic SNR-performance of some image combination techniques for phased-array MRI," Signal Processing vol. 84, no. 6, pp. 997-1003, 2003.
- 94 Sindhwan V., S. Rakshit, D. Deodhar, D. Erdogmus, J.C. Principe, P. Niyogi, "Feature Selection in MLPs and SVMs based on Maximum Output Information," IEEE Transactions on Neural Networks Special Issue on Information Theoretic Learning, vol. 15, no. 4, pp. 937-948, 2003.
- 93 Rao Y., Erdogmus D., Rao G., Principe J., "Stochastic Error Whitenning Algorithm for Linear Filter Estimation with Noisy Data," Neural Networks, 16, pp 873-880, (Invited), 2003
- 92 Iasemidis L., Shiau D., Chaowolitwongse W, Sackellares C., Principe J." Adaptive epileptic seizure prediction system". IEEE Transactions in Biomedical Engineering, 15 (5): 616-27, 2003.
- 91 Zhang H, Balaban M, Principe J., "Improving Pattern Recognition of Electronic Nose Data With Time-Delay Neural Networks", Sensors and Actuators B: Chemical, 96(1-2): 385-389, 2003.
- 90 Gao J., Cao Y., Gu L., Harris J., Principe J., "Detection of weak transitions in signal dynamics using recurrence time statistics", Physics Letters A. 317, pp 64-72, 2003.
- 89 Kim S-P., Sanchez J., Erdogmus D., Rao Y., Principe J., Nicolelis M., "Divide-and-Conquer Approach for Brain Machine Interfaces: Nonlinear Mixture of Competitive Local Linear Models," Neural Networks, 16, pp 865-871, (Invited), 2003.
- 88 Larsson E., Erdogmus D., Yan R, Principe J., Fitzsimmons J., "SNR-Optimality of Sum-of-Squares Reconstruction for Phased-Array

2002

- Magnetic Resonance Imaging," in Journal of Magnetic Resonance, vol. 163, no. 1, pp. 121-123, 2003.
- 87 Erdogmus D., Principe J., "Convergence Properties and Data Efficiency of the Minimum Error Entropy Criterion in ADALINE Training," in IEEE Transactions on Signal Processing, vol. 51, no. 7, pp. 1966-1978, 2003.
- 86 Erdogmus D., Principe J., Hild II K., "On-Line Entropy Manipulation: Stochastic Information Gradient," in IEEE Signal Processing Letters, vol. 10, no. 8, pp. 242-245, 2003.
- 85 Santamaria I., Gonzalez R., Pantaleon C., Principe J.C., "Maximum Margin Equalizers Trained with the Adatron Algorithm," in Journal of Signal Processing, #83, 593-602, 2003.
- 84 Gokcay E., Principe J., "Information theoretic clustering", IEEE Trans. Pattern Analysis and Machine Intelligence, vol 24, #2, 158-171, 2003.
- 83 Erdogmus D., Principe J., Hild K., "On-Line Entropy Manipulation: Stochastic Information Gradient," IEEE Signal Processing Letters, vol. 10, no. 8, pp. 242-245, 2003.
- 82 Rao Y.N., Principe J.C., "Time Series Segmentation Using a Novel Adaptive Eigendecomposition Algorithm," Journal of VLSI Signal Processing, #32, 7-17, 2002.
- 81 Erdogmus D., J. Principe, "Generalized Information Potential for Adaptive Systems Training," IEEE Trans. Neural Networks, vol 13, #5, 1035-1044, 2002.
- 80 Erdogmus D., Principe J., "Insights on the Relationship Between Probability of Misclassification and Information Transfer Through Classifiers," International Journal of Computers, Systems and Signals, vol. 3, no. 1, pp 40-54, 2002.
- 79 Erdogmus D., Principe J.C., "An Error-Entropy Minimization Algorithm for Supervised Training of Nonlinear Adaptive Systems," IEEE Transactions on Signal Processing, vol. 50, no. 7, pp. 1780-1786, 2002. **Best young investigator paper award in IEEE Trans. Signal Processing in 2003.**
- 78 Erdogmus D., Hild K., Principe J., "Beyond second order statistics for learning: a pairwise interaction model for entropy estimation", Journal of Natural Computing, vol. 1, no. 1, pp 85-108, 2002.
- 77 Santamaria I., Erdogmus D., Principe J.C., "Entropy Minimization for Supervised Communication Channel Equalization," IEEE Trans. on Signal Processing, vol. 50, no. 5, pp. 1184-1192, 2002.

2001

- 76 Erdogmus D., Principe J., "Information theoretical lower and upper bounds for error probability of classifiers," J. of VLSI Signal Proc. Systems, vol. 37, no. 2/3, pp. 305-317, 2002
- 75 Erdogmus D., Genc A.U., Principe J.C., "A Neural Network Perspective to Extended Luenberger Observers," Institute of Measurement and Control (Special Feature on Recent Advances in Neural Networks, Part 2), vol. 35, pp. 10-16, Feb. 2002.
- 74 Erdogmus D., Rao Y., Hild K., Principe J., "Simultaneous Principal Component Extraction with Application to Adaptive Blind Multiuser Detection," EURASIP Journal of Applied Signal Processing, Special Issue on Multiuser Detection and Blind Estimation, #12, 1473-1484, 2002.
- 73 Erdogmus D., Hild K.E. II., Principe J.C., "Blind Source Separation Using Renyi's α -Marginal Entropies," in Neurocomputing Special Issue on Blind Source Separation and Independent Component Analysis, vol 49, #1, 25-38, 2002.
- 72 Principe, J., Euliano N., Garani S., "Principles and Networks for self-organization in space time", Special Issue on SOMs, Neural Networks, #15, 1069-1083, 2002.
- 71 Principe J., Tavares V., Harris J., Freeman W., "Design and implementation of a biologically realistic olfactory cortex in analog VLSI", in the Proc. IEEE, vol 89, #7, 1030-1051, 2001.
- 70 Zhao Q., Principe J., "Forming large margins with support vector machines for synthetic aperture radar automatic target recognition, IEEE Trans. Aerospace and Elect. Systems, vol. 37, #2, 643-654, 2001.
- 69 Hild K., Erdogmus D., Principe J., "Blind source separation using Renyi's mutual information", IEEE Signal Proc. Letters, vol 8, #6, 174-176, 2001.
- 68 Zhao Q., Principe J., Brennan V., Xu D., Wang Z., "Synthetic aperture radar automatic target recognition with three strategies of learning and representation", Optical Engineering, 39(5), 1230-1244, 2000.

2000

- 67 Principe J., Xu D., Zhao Q., Fisher J. "Learning from examples with information theoretic criteria", VLSI Signal Processing Systems, 26, 61-77.
- 66 Principe J., Euliano N., Lefebvre C. "Innovating Electrical Engineering instruction with interactive electronic books", Proceedings IEEE, vol 88, #1, 81-95, 2000.

-
- 1999
- 65 Harris J., Pu C., Principe J., "A biologically inspired monaural sound localizer", in Analog Integrated Circuits and Signal Processing, 23(2):163-172, Kluwer, 2000.
 - 64 Tavares V., Principe J., Harris J., "F&H: A novel ultra-low power discrete time filter", Electronic Letters, vol 35, #15, 1226, 1999.
 - 63 Harris J., Juan J-K, Principe J., "Analog hardware implementation of continuous-time adaptive filter structures" Analog Integrated Circuits and Signal Processing, Vol. 18, No. 2-3, pp. 209-227, 1999
 - 62 Wang C., Principe J., "Training neural networks with additive noise in the desired signal", in IEEE Trans. Neural Networks, vol 10, #6, 1511-1517, 1999.
 - 61 Xu D., Principe J., Wu H., "Generalized eigendecomposition with online local rule", IEEE SP Letters, vol 5, #11, 298-301, 1999.
 - 60 Candocia F., Principe J., "Super-resolution of images based on local correlations", IEEE Trans. Neural Networks, vol 10, #2, 372-380, 1999.
- 1998
- 59 Principe, J., Wang L., Motter M., "Local Dynamic Modeling with Self-Organizing feature maps and applications to nonlinear system identification and Control", Special Issue on Intelligent Signal Processing, IEEE Proceedings, vol 86, #11, 2240-2258, 1998.
 - 58 Hwang J., Kung S., Niranjan M., Principe J., "The past, Present and Future of Neural Networks for Signal Processing", IEEE Signal Proc. Magazine, 28-48, November, 1998.
 - 57 Haykin S., Principe J., "Making Sense of a Complex World: Dynamic modeling with neural networks", in IEEE Signal Processing Magazine, vol 15, #3, 66-72, 1998.
 - 56 Principe J., Radisavljevic A., Fisher J., Haytt M., Novak L., "Target pre-screening based on a quadratic gamma detector", in IEEE Trans. Aerospace, vol 34, #3, 706-715, 1998.
 - 55 Edmonson W., Srinivasan K., Wang C., Principe J., "A Global Least square algorithm for adaptive IIR filtering" IEEE Trans. on Circuits and Systems, vol 45, #3, 379-384, 1998.
 - 54 Candocia F., Principe J., "Comments on sinc interpolation of discrete periodic signals", IEEE Trans. Signal Proc., vol 46, #7, 2044-2046, 1988.
- 1997
- 53 Iasemidis L., Principe J., Czaplewski, Roper S., Gilmore R., Sackellares J, "Spatiotemporal transition to epileptic seizures", in SpatioTemporal Models in Biological and Artificial Systems, 81-88,
-

1996

- IOS Press, Amesterdam, 1997.
- 52 Schwartz O., Harris J., Principe J., "Modeling the precedence effect for speech signals", Neural Networks, vol 12, 409-417, 1997.
- 51 Fisher J., Principe J., "Recent advances to nonlinear MACE filters" Optical Eng., 36, #10, 2697-2709, 1997.
- 50 Fancourt C., Principe J., "Competitive principal component analysis for locally stationary time series", in IEEE Trans. Signal Proc., vol 46, #11, 3068-3082, 1997.
- 49 Principe J., Kim M., Fisher J., "Target detection in synthetic aperture radar (SAR) using artificial neural networks", IEEE Trans. Image Proc. special issue on neural networks, vol 7, #8, 1136-1149, 1997.
- 48 J.G. Harris, J. Juan, and J.C. Principe. "Analog hardware implementation of continuous-time adaptive filter structures", Int. Journal of Integ. Circuits and Signal Proc., 18 (2/3):209-227, 1997.
- 47 Euliano N., Principe J., Kulzer P., "A self-organizing temporal pattern recognizer with applications to robot landmark recognition", in SpatioTemporal Models in Biological and Artificial Systems, 41-48, IOS Press, Amsterdam, 1996.
- 46 Principe J., "Artificial Neural Networks", The Electrical Eng. Handbook, Ed. R. Dorf, 473-486, CRC Press, 1996.
- 45 Fu L., Hsu H., Principe J., "Incremental Backpropagation Networks", IEEE Trans. Neural Network, vol. 7, #13, 757-761, 1996.
- 44 Principe, J. "NeuroSolutions an Object Oriented Evolution", PC AI 49-50, 1995.
- 1995
- 43 Fisher J., Principe J., "A nonlinear extension to the MACE filter", Neural Networks, vol. 8, #17/8, 1131 -1141, 1995.
- 42 Childers D., Principe J., Ting Y., Lee K., "Adaptive WRLS -VFF for speech analysis", IEEE Trans. Signal Proc., vol 3, #3, pp 209-213, 1995.
- 41 Principe J., Kuo J-M., "Dynamic Modeling of Chaotic Time Series with Neural Networks", Advances in Neural Inf. Proc. Systems 7, Ed. Tesauro, Touretzky, Leen, pp. 311 - 318, 1995.
- 40 Celebi S., Principe J., "Parametric least squares approximation

1994

- using gamma bases”, IEEE Trans. Signal Proc., vol 43, #3, pp. 781-784, 1995.
- 39 Principe J., Hsu H., Kuo J., “Analysis of short term neural memory structures for nonlinear prediction”, Advances in Neural Inf. Proc. Systems 6, Edit. Cowan, Tesauro, Alspector, pp. 1011-1018, 1994.
- 38 Tracey J., Principe J., “Isolated word speech recognition using the focused gamma neural network”, Journal of Artificial Neural Networks, vol 1, #4, pp. 481-499, 1994.
- 37 Choi H-G., Principe J., Hutchison A., “Multiresolution Segmentation of respiratory EMG signals”, IEEE Biomed. Eng. '94, vol 41, #13, pp. 257-266, 1994.
- 36 Principe J., Kuo J-M, Celebi S., “An analysis of the gamma memory in dynamic neural networks” in IEEE Trans. Neural Networks, Special issue in Dynamic nets, vol 5, #2, 331-337, 1994.

1993

- 35 Zahalka A., Principe J., “Transient detection using neural networks: the search for the desired signal”, in Advances Neural Information Proc. Systems 5, Ed. Hanson, Giles, pp. 688-695, 1993.
- 34 Davis T., Principe J., “A Markov framework for the simple genetic algorithm”, Evolutionary Computing, 1 (3), pp. 269-288, 1993.
- 33 Principe J., deVries B., Guedes de Oliveira P., “The gamma filters: a new class of adaptive IIR filters with restricted feedback”, IEEE Trans. Signal Proc., '93, vol 41, #2, pp. 649-656, 1993.
- 32 Barreto A., Principe J., Reid S., “STL - A spatial temporal characterization of interictal epileptic spikes”, Brain Topography, vol 5, #3, pp. 215-228, 1993.

1992

- 31 Principe J., Lo P-C., Kuo J-M., “Dynamical modeling of the EEG-the effect of time varying parameters”, in Nonlinear Dynamics of the Brain, (Jansen, Ed), pp. 259-266, World Scientific, 1992.
- 30 Principe J., Rathie A., Kuo J., “Prediction of chaotic time series with neural networks”, in Nonlinear Dynamics of the Brain, (Jansen, Ed), pp. 250-258, World Scientific, 1992.
- 29 Principe J., Chang T., Gala S., Tome A., “Information processing models for sleep staging”, in Int. J. Expert Systems with Applications, vol 6, pp. 399-409, Pergamon Press., 1992

1991

-
- 28 Principe J., Rathie A., Kuo J-M., "Prediction of chaotic time series with neural networks and the issue of dynamic modeling", Bifurcation and Chaos, vol 2, #4, pp. 989-996, World Scientific, 1992.
- 27 Principe J.C., deVries B., Kuo J-M., Oliveira P., "Modeling applications with the focused gamma net", in Advances of Neural Information Proc. Systems 4, pp. 143-150, Morgan Kaufman, 1992.
- 26 Koch C., Palovcik R., Principe J., "Chaotic activity during iron induced 'epileptiform' discharges in rat hippocampal slices", in IEEE Trans. Biomed. Eng., vol 39, #11, pp. 1152-1160, 1992.
- 25 deVries B., Principe J., "The gamma neural network - A new model for temporal processing", Neural Networks, vol 5, pp 565-576, 1992.
- 24 Chang T., Smith J., Principe J., "A knowledge-based system for the automated on line classification of EEG/EOG signals", Int J. Mini and Microcomputer Applications, vol 10, #2, pp. 54-65.
- 23 Kuo M-J, Principe J., "Removing correlation from dimension estimation of time series: experimental results" in Measuring Chaos in the Human Brain, Ed. Duke and Pritchard, World Scientific, pp. 128-135, 1991.
- 22 Palovcik R., Reid S., Principe J., Albuquerqe A., "3-D computer animation of electrophysiological responses", J. Neuroscience Methods, vol 41, pp. 1-9, 1991.
- 21 Principe J., Hsu H., "Visualization and construction of EEG state space portraits", in Measuring Chaos in the Human Brain, Ed. Duke and Pritchard, World Scientific, pp. 167-180, 1991.
- 20 Lo P-C, Principe J., "Towards the determination of EEG Lyapunov Exponents", in Measuring Chaos in the Human Brain, Ed. Duke and Pritchard, World Scientific, pp. 156-166, 1991.
- 19 Principe J., Park S-H., "A distributed knowledge-based system for EEG processing in epilepsy", in AutoMedica, vol 14, pp. 81-99, Elsevier, 1991.
- 18 Principe J., Yoon K. "A new algorithm for the detection of tool breakage in milling", in Machine Tools and Manufacture, Pergamon Press, Vol 31-4, pp. 443-454, 1991.

-
- 1990
- 17 deVries A., Principe J., "A theory for neural networks with time delays", Advances in Neural Information Proc. Systems, Vol III, Ed. D. Touretzky, Morgan Kaufmann, pp. 162-168, 1991.
- 16 Park S-H, Principe J.C., Smith J.R. "TDAT- Time domain analysis tool for EEG analysis", IEEE Trans. Biomed. Engr., Special issue on visualization and interaction with data, vol 37, #8, pp. 803-811, 1990.
- 1989
- 15 Chang T.G., Smith J.R., Principe J.C., "An expert system for the multichannel sleep EEG/EOG analysis", ISA Transactions 28: 45-51, 1989.
- 14 Principe J.C., Gala S.K., Chang T.G., "Sleep staging automaton based on the theory of evidence", IEEE Trans. Biomed. Eng., vol. 36, pp. 5:503-509, 1989.
- 1988
- 13 Smith J.R., and Principe J.C., "Computer analysis of human sleep", in Ency. Medical Devices and Inst., John Wiley, New York, NY, pp. 2632-2642, 1988.
- 12 McLochlin C., Principe J.C., Smith J.R., "A data compression algorithm for the electroencephalogram", Int. J. Biomed. Computing, 22, pp. 83-95, 1988.
- 1987
- 11 Guedes de Oliveira P., Principe J.C., Cruz A., Tome A., "HIDRA- A hierarchical instrument for distributed real-time analysis of biological signals", IEEE Trans. Biomed. Eng., vol BME-34, pp. 921-927, 1987.
- 10 Vaz, F., Guedes de Oliveira P., Principe J.C., "A study of the best order for autoregressive EEG modeling", Int. J. Biomed. Compt., vol. 20, pp. 41-50, 1987.
- 1986
- 9 Principe J.C., Smith J.R., "SAMICOS-A Sleep Analyzing Micro-computer System", IEEE Trans. Biomed. Eng., vol BME-33, pp. 935-941, 1986.
- 8 Principe J.C., Smith J.R., "Design and Implementation of Linear Phase FIR Filters for Biological Signal Processing", IEEE Trans. Biomed. Eng., vol BME 33, no 6, pp. 550-559, 1986.
- 1985
- 7 Principe J.C., Guedes de Oliveira P., Vaz F., and Tome A., "Automated Event Detection and Characterization in EEG Monitoring, Part II: Signal Processing", in Biorhythms and Epilepsy, Edited by da Silva, Binnie and Meinardi, pp. 177-194, Raven Press, 1985.

-
- 1984**
- 6 Principe J.C., Smith J.R., "Automated Detection of Spike and Wave Bursts", in Long Term Monitoring and Computer Analysis of the EEG in Epilepsy, Edited by Gotman, Gloor and Ives, Elsevier, 1984.
- 1982**
- 5 Principe J.C., Smith J.R., "Sleep Spindle Characteristics as a Function of Age", in Sleep, vol 5:1, pp. 73-84, 1982.
- 4 Principe J.C., Smith J.R., "Microcomputer Based System for the Detection and Quantification of Petit Mal Epilepsy", in Computers in Biology and Medicine, vol 12:2, pp. 87-95, 1982.
- 1979**
- 3 Principe J.C., Smith J.R., Balakrishnan S.K., Paige A., "Microcomputer Based Digital Filters for EEG Processing", in IEEE Trans. Acoust. Speech and Signal Process., ASSP-27, pp. 697-705, 1979.
- 2 Principe J.C., "Automated Analysis and Quantification of Petit Mal Epilepsy in the Human Electroencephalogram", Ph. D. Dissertation, University of Florida, Gainesville, FL, 1979.
- 1974**
- 1 Principe J.C., "Investigation on Surface Acoustic Wave Bandpass Filters", Master Thesis, University of Florida, Gainesville, FL, 1974.

REFEREED PUBLICATIONS- Conference Proceedings

Under Review

2017

- 518 Sledge I., Principe J., “Balancing Exploration and Exploitation in Reinforcement Learning Using a Value of Information Criterion”, Proc. IEEE ICASSP 2017, New Orleans, Louisiana.
- 517 Silva C., Principe J., Keil A., “A Novel Methodology to Quantify Dense EEG in Cognitive Tasks”, Proc. IEEE ICASSP 2017, New Orleans, Louisiana.
- 516 Li K., Principe J., “Automatic Insect Recognition Using Optical Proc. IEEE ICASSP 2017, New Orleans, Louisiana.
- 515 Yu S., Emigh M., Santana E., Principe J., “Autoencoders trained with relevant information: Blending Shannon and Wiener’s”, Proc. IEEE ICASSP 2017, New Orleans, Louisiana.

2016

- 514 Loza C., Principe J., “A Robust Maximum Correntropy Criterion for Dictionary Learning”, IEEE Workshop Machine Learning for Signal Processing, Salerno, Italia, 2016
- 513 Li, H., Wang, F., Zhang, Q., Zhang, S., Wang, Y., Zheng, X., Principe, J., “Maximum Correntropy Based Attention-Gated Reinforcement Learning Designed for Brain Machine Interface”, IEEE EMBC 2016, Orlando, Florida.
- 512 Georgia E., Principe J., Polyzos A., Fotiadis D., “Non-linear Dynamic Modeling of Glucose in Type 1 Diabetes with Kernel Adaptive Filters”, IEEE EMBC 2016, Orlando, Florida
- 511 Loza C., Principe J., “Estimation and Modeling of EEG Amplitude-Temporal Characteristics Using a Marked Point Process Approach”, IEEE EMBC 2016, Orlando, Florida.
- 510 Silva C., Hazrati M., Keil A., Principe J., “Quantification of Neural Functional Connectivity during an Active Avoidance Task”, IEEE EMBC 2016, Orlando, Florida.
- 509 Chen B., Qin Z., Zheng N., Príncipe J., “Kernel Adaptive Filtering Subject to Equality Function Constraints”, Eusipco 2016, Budapest, Hungary.
- 508 Santana E., Emigh M., and Principe J., “Information Theoretic-Learning Auto-Encoders”, Proc. IEEE WCCI 2016, Vancouver, Canada.
- 507 Loza C., Principe J., “Generalized Correntropy Matching Pursuit: A novel, robust algorithm for sparse decomposition”, Proc. IEEE WCCI 2016, Vancouver, Canada.

2015

- 506 Cao Z., Yu S., Xu G., Chen B., and Principe J., “Multiple Adaptive Kernel Size KLMS for Beijing PM2.5 Prediction”, Proc. IEEE WCCI 2016, Vancouver, Canada.
- 505 Xi B., Sun L., Chen B., Jianji W., Zheng N. and Principe J., “Density-dependent Quantized Kernel Least Mean Square”, Proc. IEEE WCCI 2016, Vancouver, Canada.
- 504 Xu G., Hu B-G. and Principe J., “Robust Rescaled Logistic Regression in the Class Imbalance Problem”, Proc. IEEE WCCI 2016, Vancouver, Canada.
- 503 Loza C., Principe J., “Transient Model of EEG Using the Gini Index Based Matching Pursuit”, Proc. IEEE Int. Conf. Acoust. Speech Sign Proc. (ICASSP), Shanghai, China, 2016.
- 502 Burt R., Santana E., Principe J., Thigpen N., Keil A., “Predicting Visual Attention using Gamma Kernels”, Proc. IEEE Int. Conf. Acoust. Speech Sign Proc. (ICASSP), Shanghai, China, 2016.
- 501 Cao Z., Principe J., Ouyang B., “Information Point-set Registration for Shape Recognition”, Proc. IEEE Int. Conf. Acoust. Speech Sign Proc. (ICASSP), Shanghai, China, 2016.
- 500 Yu Q., Ma Y., Chen B., Principe J., Zheng N., “A Reconfigurable Parallel FPGA Accelerator for the Adapt-Then-Combine Diffusion LMS Algorithm”, Proc. IEEE ISCAS, Montreal, 2016
- 499 Dai Z., Príncipe J., Bezerianos A., Thakor N., “Cognitive Workload Discrimination in Flight Simulation Task Using a Generalized Measure of Association”, Proc. Neural Information Processing, Volume 9491 (ICONIP 2015), pp 692-699.
- 498 Matthew Emigh, Evan Kriminger, Jose Carlos Principe, “A Model Based Approach To Exploration Of Continuous-State MDPs Using Divergence-To-Go”, Proc. IEEE Machine Learn. Sig. Proc., Boston, 2015
- 497 Nallathambi G., Principe J., Euliano N., “A Time Encoded Discriminative Representation and Computation Method for Pulse Oximetry”, Proc. IEEE Machine Learn. Sig. Proc., Boston, 2015.
- 496 Hazrati M., Keil A., Principe J., “Directed Generalized Measure of Association: A Data Driven Approach towards Causal Inference”, Proc. IEEE Joint Conf. Neural Networks, Killarney Ireland.
- 495 Santana E., Principe J., “Mixed Generative and Supervised Learning Modes in Deep Predictive Coding Networks”, IEEE Joint Conf. Neural Networks, Killarney Ireland.
- 494 Santana E., Cinar G., and Jose C. Principe, “Parallel flow in Deep Predictive Coding Networks”, IEEE Joint Conf. Neural Networks, Killarney Ireland.

-
- 493 Wang R., Chen B., Zheng N., and Jose Principe, “A Variable Step-Size Adaptive Algorithm under Maximum Correntropy Criterion”, IEEE Joint Conf. Neural Networks, Killarney Ireland. **Honorable mention poster award.**
- 492 Chen B., Wang R., Zheng N., and Principe J., “On Initial Convergence Behavior of the Kernel Least Mean Square Algorithm”, IEEE Joint Conf. Neural Networks, Killarney Ireland.
- 491 Emigh M., Kriminger E., Principe J., “Linear Discriminant Analysis with an Information Divergence Criterion”, IEEE Joint Conf. Neural Networks, Killarney Ireland. **Best Poster Award.**
- 490 Cao Z., Principe J., Ouyang B., “Group Feature Selection in Image Classification with Multiple Kernel Learning”, IEEE Joint Conf. Neural Networks, Killarney Ireland.
- 489 Wang W., Zhao J., Qu H., Chen B., Principe J., “A Switch Kernel Width Method of Correntropy for Channel Estimation”, IEEE Joint Conf. Neural Networks, Killarney Ireland.
- 488 Qi Y., Cinar G., Souza V., Batista G., Wang Y., Principe J., “Effective Insect Recognition Using a Stacked Autoencoder with Maximum Correntropy Criterion”, IEEE Joint Conf. Neural Networks, Killarney Ireland.
- 487 Chen B., Wang R., Zheng N., and Jose Principe, “Exponential C-loss for Data Fitting”, IEEE Joint Conf. Neural Networks, Killarney Ireland.
- 486 MA W., Qu H., Zhao J., Chen B., Principe Jose, “Sparsity Aware Minimum Error Entropy Algorithms” IEEE Int. Conf. Acoust. Speech Sign Proc. (ICASSP), Brisbane, Australia
- 485 Brockmeier A., Principe J., “Explicit Versus Implicit Source Estimation For Blind Multiple Input Single Output System Identification”, IEEE Int. Conf. Acoust. Speech Sign Proc. (ICASSP), Brisbane, Australia
- 484 Santana E., Dockendorf K., Principe J., “Learning joint features for color and depth images with Convolutional Neural Networks for object classification”, IEEE Int. Conf. Acoust. Speech Sign Proc. (ICASSP), Brisbane, Australia
- 483 Li K., Dura-Bernal S., Francis J., Lytton W., Principe J., “Repairing Lesions Via Kernel Adaptive Inverse Control in a Biomimetic Model of Sensorimotor Cortex”, IEEE Neuro Eng Conf., Montpellier, France.
- 482 Eder Santana, Austin Brockmeier, Jose Principe, “Joint Optimization of Algorithmic Suites for EEG Analysis”, IEEE EMBC Chicago, 2014.

-
- 481 Loza C., Philips G., Hazrati M., Daly J. J., Principe J., “Classification of Hand Movement Direction Based on EEG High-Gamma Activity”, IEEE EMBC Chicago, 2014
- 480 Philips G., Hazrati M., Daly J. J., Principe J., “Addressing Low Frequency Movement Artifacts in EEG Signals Recorded During Center-Out Reaching Tasks”, IEEE EMBC Chicago, 2014
- 479 Dura-Bernal S., Li K., Brockmeier B., Kerr C., Neymotin S., Principe J., Francis J., Lytton W., “Modulation of virtual arm trajectories via microstimulation in a spiking model of sensorimotor cortex”, Twenty Third Annual Computational Neuroscience Meeting, CNS*2014 Québec City, Canada, July 2014
- 478 Kianpour I., Tavares V., Principe J., “An Energy Study on IR-UWB Transmitter Using Integration-and-Fire Modulation” in Proc. IEEE Inter. Conf. on Ultra-Wideband ICUWB 2014, Paris, France.
- 477 Xu G., Hu B-G, and Principe J., “An Asymmetric Stagewise Least Square Loss Function for Imbalanced Classification”, in Proc. IEEE WCCI 2014, Beijing, China
- 476 Chen B., Yang X., Ji H., Qu H., Zheng N. and Principe J., “Trimmed Affine Projection Algorithms”, in Proc. IEEE WCCI 2014, Beijing, China
- 475 Cinar G., Loza C., and Principe J., “Hierarchical Linear Dynamical Systems: A new model for clustering of time series”, in Proc. IEEE WCCI 2014, Beijing, China
- 474 Burt R., Cinar G., and Principe J., “Pitch Estimation Using Non-negative Matrix Factorization”, in Proc. IEEE WCCI 2014, Beijing, China
- 473 Bae J., Sanchez Giraldo L., Francis J. and Principe J., “Correntropy Kernel Temporal Differences for Reinforcement Learning Brain Machine Interfaces”, in Proc. IEEE WCCI 2014, Beijing, China
- 472 Pokharel R., Seth S. and Principe J., “Quantized Mixture Kernel Least Mean Square”, in Proc. IEEE WCCI 2014, Beijing, China
- 471 Alvarez-Meza A., Castellanos-Dominguez G., Príncipe J., “Functional Relevant Multichannel Kernel Adaptive Filter for Human Activity Analysis”, in Proc. ICASSP 2014, Florence, Italy.
- 470 Chen B., Yang X., Qu H., Zhao J., Zheng N., Príncipe J., “Feature selection based on Survival Cauchy-Schwartz mutual information”, in Proc. ICASSP 2014, Florence, Italy.
- 469 Cinar G., Príncipe J., “Clustering of Time Series Using a Hierarchical Linear Dynamical System”, in Proc. ICASSP 2014, Florence, Italy.

2013

- 468 Chen B., Zheng N., Príncipe J., “Sparse kernel recursive least squares using l1 regularization and a fixed-point sub-iteration”, in Proc. ICASSP 2014, Florence, Italy.
- 467 Brockmeier A., Santana E., Sanchez Giraldo L., Príncipe J., “Projentropy: Using entropy to optimize spatial projections”, in Proc. ICASSP 2014, Florence, Italy.
- 466 Chalasani, R., and Principe, J.C, “Dynamic Sparse Coding with Smoothing Proximal Gradient Method”, Proc. ICASSP 2014, Florence, Italy.
- 465 Dura-Bernal S., Kan Li, Austin Brockmeier, Cliff Kerr, Samuel Neymotin, Jose Principe, Joseph Francis, William Lytton, ‘Modulation of virtual arm trajectories via microstimulation in a spiking model of sensorimotor cortex’, in Cognitive NeuroScience Society CNS 2014, Boston, MA.
- 464 Brockmeier A., Giraldo L., Choi J., Francis J., and Principe J., “Learning Multi-scale Neural Metrics via Entropy Minimization”, IEEE Workshop on Neural Engineering, San Diego, 2013.
- 463 Miranda V., Krstulovic J., Hora J., Palma V., Príncipe J., “Breaker status uncovered by autoencoders under unsupervised maximum mutual information training”, in Proc. ISAC, 2013, Tokyo.
- 462 Kriminger E., Brockmeier A., Giraldo Sanchez L., Príncipe J., “Metric Learning for Invariant Feature Generation in Reinforcement Learning,” RLDM 2013, Princeton.
- 461 Chalasani R., Príncipe J., “Deep Predictive Coding Networks, Workshop track at ICLR 2013.
- 460 Sanchez Giraldo L., Príncipe J., “Information Theoretic Learning with Infinitely Divisible Kernels”, ICLR 2013.
- 459 Craciun S., Wang G., George A., Lam H., Príncipe J., “A Scalable RC Architecture for Mean-Shift Clustering”, ASAP 2013.
- 458 Chen B., Zheng N., Príncipe J., “Survival kernel with application to kernel adaptive filtering”, Proc. IEEE IJCNN, Austin, Tx, 2013.
- 457 Zhu P., Príncipe J., “Analysis on Extended Kernel Recursive Least Squares Algorithm”, Proc. IEEE IJCNN, Austin, Tx, 2013.
- 456 Li K., Chen B., Príncipe J., “Kernel Adaptive Filtering with Confidence Intervals”, Proc. IEEE IJCNN, Austin, Tx, 2013.
- 455 Chalasani R., Príncipe J., Ramakrishnan N., “A Fast Proximal Method for Convolutional Sparse Coding”, Proc. IEEE IJCNN, Austin, Tx, 2013.

-
- 454 Fadlallah B., Principe J., "Diffusion Least-Mean Squares Over Adaptive Networks with Dynamic Topologies", Proc. IEEE IJCNN, Austin, Tx, 2013.
- 453 Pokharel R., Seth S., Principe J., "Additive Kernel Least Mean Square", Proc. IEEE IJCNN, Austin, Tx, 2013.
- 452 Lee J., Zhu P., Principe J., "A Parameter-free Kernel Design Based on Cumulative Distribution Function for Correntropy", Proc. IEEE IJCNN, Austin, Tx, 2013.
- 451 Fadlallah B., Keil A., Principe J., "Functional Dependence in the Human Brain: A Graph Theoretical Analysis", Proc. IEEE EMBC Osaka, Japan, 2013.
- 450 Wan L., Fadlallah B., Keil A., Principe J., "Quantifying Cognitive State from EEG using Phase Synchrony", Proc. IEEE EMBC Osaka, Japan, 2013.
- 449 Bae J., Sanchez L., Pohlmeier E., Sanchez J., Principe J., "A New Method of Concurrently Visualizing States, Values, and Actions in Reinforcement based Brain Machine Interfaces", Proc. IEEE EMBC Osaka, Japan, 2013.
- 448 Brockmeier A., Eumigh M., Bae J., Choi J., Francis J., Principe J., "Information-Theoretic Metric Learning: 2-D Linear Projections of Neural Data for Visualization", Proc. IEEE EMBC Osaka, Japan, 2013.
- 447 Zhu P., Principe J., "Kernel Recurrent System trained by Real Time Recurrent Learning Algorithm". Proc IEEE ICASSP, Vancouver, Canada, 2013.
- 446 Brockmeier A., Principe J., Phan A., Cichocki A., "A Greedy Algorithm for Model Selection in Tensor Decompositions". Proc IEEE ICASSP, Vancouver, Canada, 2013.
- 2012**
- 445 Li L., Choi J., Francis J., Sanchez J., Principe J., "Decoding Stimuli from Multi-Source Neural Responses", Proc. IEEE Eng. Medicine Biology Conf. (EMBC-2012)
- 444 Brockmeier A., Choi J., Emigh M., Li L., Francis J., Principe J., "Subspace Matching of Tactile and Thalamic Microstimulation Evoked Potentials in Rat Somatosensory Cortex", Proc. IEEE Eng. Medicine Biology Conf. (EMBC-2012)
-

-
- 443 Brockmeier A., Hazrati M., Freeman W., Principe J., “Locating Spatial Patterns of Waveforms During Sensory Perception in Scalp EEG”, Proc. IEEE Eng. Medicine Biology Conf. (EMBC-2012)
- 442 Liao Y., Wang Y., Zheng X., Principe J., “Mutual Information Analysis on Non-Stationary Neuron Importance for Brain Machine Interfaces”, Proc. IEEE Eng. Medicine Biology Conf. (EMBC-2012)
- 441 Fadlallah B., Brockmeier A., Seth S., Keil A., Principe J., “An Association Framework to Analyze Dependence Structure in Time Series” Proc. IEEE Eng. Medicine Biology Conf. (EMBC-2012)
- 440 Hasanbelliu E., Kampa K., Cobb J. and Principe J., “Online learning using a Bayesian surprise metric”, Proc. IEEE World Conf. Comp. Intell. (WCCI-2012), Brisbane, Australia.
- 439 Zhao S., Chen B., and Principe J., “An Adaptive Kernel Width Update for Correntropy” Proc. IEEE World Conf. Comp. Intell. (WCCI-2012), Brisbane, Australia.
- 438 Fadlallah B. and Principe J., “A Comparative Neural Networks Approach to Sonar Data Classification using MSE and Correntropy-Loss Cost Functions” IEEE World Conf. Comp. Intell. (WCCI-2012), Brisbane, Australia.
- 437 Cinar G. and Principe J., “Hidden State Estimation using the Correntropy Filter with Fixed Point Update and Adaptive Kernel Size”, Proc. IEEE World Conf. Comp. Intell. (WCCI-2012), Brisbane, Australia.
- 436 Chalasani R., Cinar G., and Principe J., “Sequential Causal Estimation and Learning from Time-Varying Images” Proc. World Conf. Comp. Intell. (WCCI-2012), Brisbane, Australia.
- 435 Pokharel R. and Principe J., “Kernel Classifier with Correntropy Loss” Proc. World Conf. Comp. Intell. (WCCI-2012), Brisbane, Australia.
- 434 Kriminger E., Lakshminarayan C. and Principe J., “Nearest Neighbor Distributions for Imbalanced Classification”, Proc. World Conf. Comp. Intell. (WCCI-2012), Brisbane, Australia.
- 433 Chen B., Zhao S., Seth S. and Principe J., “Online Efficient Learning with Quantized KLMS and L1 Regularization”, Proc. World Conf. Comp. Intell. (WCCI-2012), Brisbane, Australia.

20II

- 432 Kampa K., Principe J., Putthividhya D., Rangarajan A., "Data-driven tree structured Bayesian network for image segmentation", Proc IEEE Int. Conf. Audio Acoustics and Signal Proc (ICASSP 2012), Kyoto, Japan.
- 431 Fadlallah B., Seth S., Keil A., Principe J., "Analyzing dependence structure of the human brain in response to visual stimuli", Proc. IEEE Int. Conf. Audio Acoustics and Signal Proc (ICASSP 2012), Kyoto, Japan.
- 430 Zhao S., Chen B., Principe J., "A fixed budget quantized kernel least mean square algorithm", Proc. IEEE Int. Conf. Audio Acoustics and Signal Proc (ICASSP 2012), Kyoto, Japan.
- 429 Villmann T., Cichocki A., and J. Principe, "Information Theory Related Learning", Proc. ESANN 2011, Bruges (Belgium), 27-29 April 2011
- 428 Hasanbelliu E., Kampa K., Cobb J. and Príncipe J., "Bayesian surprise metric for outlier detection in on-line learning", Proceedings SPIE 8017, 80170S (2011)
- 427 Cobb J. and Principe J., "Autocorrelation Features for Synthetic Aperture Sonar Image Seabed Segmentation," in Systems, Man, Cybernetics (SMC 2011), in press, Ed., Oct. 2011
- 426 Cobb J. and Principe J., "Seabed Segmentation in Synthetic Aperture Sonar Images," in SPIE Defense, Security, and Sensing Symposium, Apr. 2011, vol. 8017.
- 425 Sanchez Giraldo L., Principe J., "A Reproducing Kernel Hilbert Space Formulation of the Principle of Relevant Information", Proc. IEEE Workshop Machine Lear. Signal Proc. (MLSP), Beijing, CN.
- 424 Mishra B., Principe J., Estevez P., Protopapas P., "Estimation of Periodicity in Non-Uniformly Sampled Astronomical Data Using a 2D Kernel in Correntropy", Proc. IEEE Workshop Machine Lear. Signal Proc. (MLSP), Beijing, CN.
- 423 Li L., Park I., Seth S., Choi J., Francis J., Sanchez J., Principe J., "An adaptive decoder from spike trains to micro-stimulation using kernel least-mean-square (KLMS) algorithm", Proc. IEEE Workshop Machine Lear. Signal Proc. (MLSP), Beijing, CN.

-
- 422 Jihye B., Sanchez Giraldo L., Chhatbar P., Francis J., Sanchez J., Principe J., “Stochastic Kernel Temporal Difference For Reinforcement Learning”, Proc. IEEE Workshop Machine Lear. Signal Proc. (MLSP), Beijing, CN.
- 421 Kittipat K., Duangmanee P., Principe J., “Irregular Tree-structured Bayesian Network For Image Segmentation” Proc. IEEE Workshop Machine Lear. Signal Proc. (MLSP), Beijing, CN.
- 420 Hasanbelliu E., Sanchez-Giraldo L., Principe J., “A Robust Point Matching Algorithm for Non-Rigid Registration Using Cauchy-Schwarz Divergence”, Proc. IEEE Workshop Machine Lear. Signal Proc. (MLSP), Beijing, CN
- 419 Brockmeier A., Principe J., Mahmoudi B., and Sanchez J., “Efficient Temporal Decomposition of Local Field Potentials”, Proc. IEEE Workshop Machine Lear. Signal Proc. (MLSP), Beijing, CN.
- 418 Brockmeier A., Choi J., DiStasio M., Francis J., Principe J., “Optimizing Microstimulation using a Reinforcement Learning Framework”, Proc. IEEE Eng. Med. Biol. Conf. (EMBC), Boston, MA.
- 417 Fadlallah B., Seth S., Keil A., Principe J., “Robust EEG Preprocessing for Dependence-Based Condition Discrimination”, Proc. IEEE Eng. Med. Biol. Conf. (EMBC), Boston, MA.
- 416 Bae J., Chatbar P., Francis J., Sanchez J., Principe J., “Reinforcement Learning via Kernel Temporal Difference”, Proc. IEEE Eng. Med. Biol. Conf. (EMBC), Boston, MA.
- 415 Craciun S., Brockmeier A., George A., Lam H., Principe J. “An Information-Theoretic Approach to Motor Decoding with a Reconfigurable Parallel Architecture“, Proc. IEEE Eng. Med. Biol. Conf. (EMBC), Boston, MA.
- 414 Seth S., Brockmeier A., Choi J., Semework M., Francis J., and Principe J., “Evaluating dependence in spike train metric spaces”, Proc. Int. Joint Conf. neural Networks (IJCNN), San Jose, CA.
- 413 Kampa K., Hasanbelliu E., and Principe J., “Closed-form Cauchy-Schwarz pdf Divergence for Mixture of Gaussians”, Proc. Int. Joint Conf. neural Networks (IJCNN), San Jose, CA.

-
- 412 Zhao S., Chen B., and Principe J., “Kernel Adaptive Filtering with Maximum Correntropy Criterion”, Proc. Int. Joint Conf. neural Networks (IJCNN), San Jose, CA.
- 411 Chalasani R. and Principe J., “A Sparse Analog Associative Memory via L1-Regularization and Thresholding”, Proc. Int. Joint Conf. neural Networks (IJCNN), San Jose, CA.
- 410 Zhu P., Chen B., and Principe J., “Extended Kalman Filter Using a Kernel Recursive Least Squares Observer”, Proc. Int. Joint Conf. neural Networks (IJCNN), San Jose, CA.
- 409 Zhao S. and Principe J., “A Nonparametric Information Theoretic Approach for Change Detection in Time Series”, Proc. Int. Joint Conf. neural Networks (IJCNN), San Jose, CA.
- 408 Cinar G., Principe J. “Adaptive Background Estimation using an Information Theoretic Cost for Hidden State Estimation”, Proc. Int. Joint Conf. neural Networks (IJCNN), San Jose, CA.
- 407 Singh-Alvarado A., Rastogi M., Harris J., Principe J., “The Integrate-and-Fire Sampler: A Special Type of Asynchronous S-D Modulators”, Proc. IEEE Int Symp. Circ. and Syst. (ISCAS 2011), Rio de Janeiro, Brazil.
- 406 Singh-Alvarado A., Entesari M., Principe J., “On Reconstruction of Trivariate Signals from Non-Uniform Samples”, Proc. SampTA 2011, Singapore.
- 405 Singh-Alvarado A., Lakhminarayan C., Principe J., “Time encoding using the Integrate and fire sampler: A Discriminative Representation for Neural Action Potentials”, Proc. SampTA 2011, Singapore.
- 404 Park I., Seth S., Rao M., Principe J., ”Estimation of symmetric chi-square divergence for point processes”, Proc. IEEE Int. Conf. Acous. Speech and Sig. Proc. (ICASSP-2011), Prague, Czech Republic.
- 403 Singh-Alvarado A., Principe J., From Compressive to Adaptive Sampling of Neural and ECG Recordings”, Proc. IEEE Int. Conf. Acous. Speech and Sig. Proc. (ICASSP-2011), Prague, Czech Republic.
- 402 Kriminger E., Principe J., Lakshminarayan C., “Modified Embedding for Multi-regime Detection in Nonstationary Streaming Data”, Proc. IEEE Int. Conf. Acous. Speech and Sig. Proc. (ICASSP-2011), Prague, Czech Republic.
-

-
- 401 Seth S., Brockmeier A., Principe J., “A metric Approach toward Point Process Divergence”, Proc. IEEE Int. Conf. Acous. Speech and Sig. Proc. (ICASSP-2011), Prague, Czech Republic.
- 400 Sanchez-Giraldo L., Principe J., “An Efficient Rank-Deficient Computation of the Principle of Relevant Information”, Proc. IEEE Int. Conf. Acous. Speech and Sig. Proc. (ICASSP-2011), Prague, Czech Republic.
- 399 Mahmoudi B., Principe J., Sanchez J., “Symbiotic Brain-Machine Interface Decoding Using Simultaneous Motor and Reward Neural Representation”, Proc. IEEE Neural Eng Conference, Cancun 2011.
- 398 Li L., Brockmeier A., Frances J., Sanchez J., Principe J., “An adaptive inverse controller for online somatosensory microstimulation optimization”, Proc. IEEE Neural Eng Conference, Cancun 2011.
- 397 Rattanatamrong P., Matsunaga A., Brockmeier A., Sanchez J., Principe J., Fortes J., “Towards Closed-Loop Brain-Machine Experiments across Wide-Area Networks”, Proc. IEEE Neural Eng Conference, Cancun 2011.
- 396 Brockmeier A., Kriminger E., Sanchez J., Principe J., “Latent State Visualization of Neural Firing Rates”, Proc. IEEE Neural Eng Conference, Cancun 2011.
- 395 Seth S., Principe J., “Variable Selection: A Statistical Dependence Perspective”, Proc. IEEE Int. Conf. Machine Learn. Appl., (ICMLA 2010), Washington DC.
- 394 Brockmeier J., Park I., Mahmoudi B., Sanchez J., and Principe J., “Spatio-Temporal Clustering of Firing Rates for Neural State Estimation”, Proc. IEEE Eng. Med. Biol. Conf. (EMBC 2010), Buenos Aires, Argentina.
- 393 Mahmoudi B., Principe J., Sanchez J., “Extracting an Evaluative Feedback from the Brain for Adaptation of Motor Neuroprosthetic Decoders”, Proc. IEEE Eng. Med. Biol. Conf. (EMBC 2010), Buenos Aires, Argentina.
- 392 Rattanatamrong P., Raiturkar P., Zhao M., Mahmoudi B., DiGiovanna J., Principe J., Figueiredo R., Sanchez J., and Fortes J., “Model Development, Testing, and Experimentation in a CyberWorkstation for Brain-Machine Interface Research”, Proc. IEEE Eng. Med. Biol. Conf. (EMBC 2010), Buenos Aires, Argentina.

-
- 391 Li L., Park I., Seth S., Sanchez J., Principe J., “Neuronal Functional Connectivity Dynamics in Cortex: An MSC-based Analysis”, Proc. IEEE Eng. Med. Biol. Conf. (EMBC 2010), Buenos Aires, Argentina.
- 390 Seth S. and Principe J., “A Conditional Independence Perspective of Variable Selection”, Proc. IEEE Machine Learning for Sig. Process. Workshop (MLSP 2010), Kittila, Finland.
- 389 Paiva A., Principe J., “A Fixed Point Update for Kernel Width Adaptation in InformationTheoretic Criteria”, Proc. IEEE Machine Learning for Sig. Process. Workshop (MLSP 2010), Kittila, Finland.
- 388 Daza-Santacoloma G., Castellanos-Domynguez G., and Principe J., “Functional Data representation using Correntropy Locally Linear Embedding”, Proc. IEEE Machine Learning for Sig. Process. Workshop (MLSP 2010), Kittila, Finland.
- 387 Cortez P., Estevez P., Principe J., “Linear Projection Method based on Information Theoretic Learning” Proc. XX Int. Conf. Artificial Neural Networks (ICANN), Thessaloniki, Greece.
- 386 Chalasani R., Principe J., “Self Organizing Maps with the Correntropy Induced Metric”, Proc. Int. Joint. Conf. Neural Networks (IJCNN 2010), Barcelona, Spain.
- 385 Estevez D., Bonillo V., Principe J., “Information Theoretic Fuzzy Modeling for Regression”, Proc. Int. Joint. Conf. Neural Networks (IJCNN 2010), Barcelona, Spain.
- 384 Singh A., Principe J., “A Loss Function for Classification Based on a Robust Similarity Metric”, Proc. Int. Joint. Conf. Neural Networks (IJCNN 2010), Barcelona, Spain.
- 383 Estevez P., Huijse P., Zegers P., Principe J., Protopapas P., “Period Detection in Light Curves from Astronomical Objects Using Correntropy”, Proc. Int. Joint. Conf. Neural Networks (IJCNN 2010), Barcelona, Spain.
- 382 Bessa R., Miranda V., Principe J., Botterud A., Wang J., “Information Theoretic Learning Applied to Wind Power Modeling”, Proc. Int. Joint. Conf. Neural Networks (IJCNN 2010), Barcelona, Spain.
- 381 Kang D., Park J., Principe J., “Binary Classification Based on SVDD Projection and Nearest Neighbors”, Proc. Int. Joint. Conf. Neural Networks (IJCNN 2010), Barcelona, Spain.
-

-
- 2009**
- 380 Vaerenbergh S., Santamaria I., Liu W., Principe J., “Fixed-Budget Kernel Recursive Least-Squares”, Proc. Acoustic Speech and Signal Processing (ICASSP), Dallas, Texas .
 - 379 Singh A., Principe J., “Kernel Width Adaptation in Information Theoretic Cost Functions”, Proc. Acoustic Speech and Signal Processing (ICASSP), Dallas, Texas .
 - 378 Park I., Principe J., “Quantification of Inter-trial Nonstationarity in Spike Trains from Periodically Stimulated Neural Cultures” Proc. Acoustic Speech and Signal Processing (ICASSP), Dallas, Texas .
 - 377 Seth S., Principe J., “A Conditional Distribution Function Based Approach to Design Nonparametric Tests of Independence and Conditional Independence”, Proc. Acoustic Speech and Signal Processing (ICASSP), Dallas, Texas .
 - 376 Singh A., Principe J., “A Closed Form Recursive Solution for Maximum Entropy Training”, Proc. Acoustic Speech and Signal Processing (ICASSP), Dallas, Texas .
 - 375 Kampa K., Principe J., Slatton C., “Dynamic Factor Graphs: A Novel Framework for Multiple Features Data Fusion”, Proc. Acoustic Speech and Signal Processing (ICASSP), Dallas, Texas .
 - 374 Duang D., Yang L. Principe J., “Cooperative diversity of spectrum sensing in cognitive radio networks Source “, Proc. 2009 IEEE conference on Wireless Communications & Networking, 745-750 .
 - 373 Seth S., and Principe J., “Estimation of density ratio and its applications as a measure of dependence”, Proc. IEEE Workshop Machine Learning for Sig. Processing, Grenoble, France.
 - 372 DiGiovanna J., Mahmoudi B., Principe J., Sanchez J., “Quantifying neuronal importance in value-based Brain-Machine Interfaces,” IEEE Neural Engineering Conference, Antalya, Turkey, pp. 307-310.
 - 371 Yen S., Shoonover D., Sanchez J., Principe J., Harris J., “Differential EEG,” IEEE Neural Engineering Conference, Antalya, Turkey, pp. 18- 21.
 - 370 Craciun S., Cheney D., Gugel K., Sanchez J., Principe J., “Compression of neural signals using discriminative coding for wireless applications,” IEEE Neural Engineering Conference, Antalya, Turkey, pp. 629-632.
-

-
- 369 Yen S., Xu J., Rastogi M., Harris J., Principe J., Sanchez J., “An integrated recording system using an asynchronous pulse representation,” IEEE Neural Engineering Conference, Antalya, Turkey, pp. 399-402, 2009.
- 368 Sanchez J., Figueiredo R., Fortes J., Principe J., “Development of symbiotic brain-machine interfaces using a neurophysiology cyberworkstation,” International Conference on Human Computer Interaction, San Diego, CA, pp. 606-615.
- 367 Sanchez J., Mahmoudi B., and Principe J., “A Co-Adaptive Actor-Critic Architecture for Brain-Machine Interfaces,” Asilomar Conference on Signals Systems and Computers, Pacific Grove, CA, 2009.
- 366 Sanchez J., Principe, J., :Prerequisites for symbiotic brain-machine interfaces”, IEEE Int Conf. Systems, Man and Cybernetics, 2009. SMC 2009, Page(s): 1736-1741, DOI 10.1109, St. Antonio, TX.
- 365 Hasanbelliu E., Principe J., Slatton C., “Correntropy Based Matched Filtering for Classification in Sidescan Sonar Imagery”, Proc. IEEE SMC, Page(s): 2757-2762, DOI 10.1109, St. Antonio, TX
- 364 Jung P., Sohan S., Keil A. and Principe J. “Estimation of Instantaneous Power in the EEG to Assess Brain Connectivity with High Temporal Resolution, in Proc. IEEE Eng. Med. Biol. Conf., Minneapolis, 2009.
- 363 Mahmoudi B., Principe J., and Sanchez J.,”An Actor-Critic Architecture and Simulator for Goal-directed Brain-Machine Interfaces”, in Proc. IEEE Eng. Med. Biol. Conf., Minneapolis, 2009.
- 362 Li L., Seth S., Park I., Sanchez J.and Principe J., “Estimation and Visualization of Neuronal Functional Connectivity in Motor Tasks”, in Proc. IEEE Eng. Med. Biol. Conf., Minneapolis, 2009.
- 361 Park I., Rao M., DeMarse T., Principe J., “Point Process Model for Precisely Timed Spike Trains”, in COSYNE09, Salt Lake, UT
- 360 Wang Y., Sanchez J., Principe J., “Selecting Neural Subsets for Kinematics Decoding by Information Theoretical Analysis in Motor Brain Machine Interfaces”, in IEEE Int. J. Conf. Neural Netw., Atlanta.
- 359 Singh A., J. Principe, “Using Correntropy as a Cost Function in Linear Adaptive Filters”, in IEEE Int. J. Conf. Neural Netw., Atlanta.
-

2008

- 358 Seth S., J. Principe, “On Speeding Up Computation In Information Theoretic Learning”, in IEEE Int. J. Conf. Neural Netw., Atlanta
- 357 Darmanjian S., Principe J., “Hierarchical clustering of neural data using linked mixtures of HMMs for Brain Machine Interfaces” in Proc. Acoustic Speech and Signal Processing (ICASSP), Taipe, Taiwan
- 356 Seth S., Park I., Principe J., “A new nonparametric measure of conditional independence” in Proc. Acoustic Speech and Signal Processing (ICASSP), Taipe, Taiwan.
- 355 Hasanbelliu E., and J. Principe, “Content Addressable Memories in Reproducing Kernel Hilbert Spaces “, in Proc. IEEE Workshop on Machine Learning for Signal Processing (MLSP), Cancun, Mexico.
- 354 Darmanjian S., J. Principe, “An adaptive approach for selecting the kernel size in Parzen density estimation”, in Proc. IEEE Workshop on Machine Learning for Signal Processing (MLSP), Cancun, Mexico.
- 353 Gunduz A., Sanchez J., and J. Principe, “Analysis of motor-induced ECoG features using denoising source separation”, in Proc. IEEE Workshop on Machine Learning for Signal Processing (MLSP), Cancun, Mexico.
- 352 Wang Y., J. Principe, “A Synthetic Averaging Method on Point Process for Motor Neuron Decoding in Brain Machine Interfaces, in Proc. IEEE Workshop on Machine Learning for Signal Processing (MLSP), Cancun, Mexico.
- 351 Yan W., Mitzelfelt J., Príncipe J., Sanchez J., “The Effects of Interictal Spikes on Single Neuron Firing Patterns in the Hippocampus during the Development of Temporal Lobe Epilepsy”, in Proc. Int. IEEE Conf. on Eng. in Medicine Biology, Vancouver, Ca.
- 350 Wang Y., Principe J., “Tracking the Non-Stationary Neuron Tuning by Dual Kalman Filter for Brain Machine Interfaces Decoding”, in Proc. Int. IEEE Conf. on Eng. in Medicine Biology, Vancouver, Ca.
- 349 Goh A., Craciun S., Rao S., Cheney D., Gugel K., Sanchez J., Principe J., “Wireless Transmission of Neuronal Recordings using a Portable Real-Time Discrimination/Compression Algorithm”, submitted to Int. IEEE Conf. on Eng. in Medicine Biology, Vancouver, Ca.

-
- 348 Mahmudi B., DiGiovanna J., Principe J., Sanchez J., “Neuronal Tuning in a Brain-Machine Interface during Reinforcement Learning” in Proc. Int. IEEE Conf. on Eng. in Medicine Biology, Vancouver, Ca.
- 347 Gunduz A., Sanchez J., Principe J., “Electrocorticographic Interictal Spike Removal via Denoising Source Separation for Improved Neuroprosthesis Control”, in Proc. Int. IEEE Conf. on Eng. in Medicine Biology, Vancouver, Ca.
- 346 DiGiovanna J., Citi L., Yoshida K., Carpaneto J., Principe J., Sanchez J., Micera S., “Inferring the Stability of LIFE with Simple BMIs”, in Proc. Int. IEEE Conf. on Eng. in Medicine Biology, Vancouver, Ca.
- 345 Harris J., Xu J., Rastogi M., Singh-Alvarado A., Garg V., Principe J., and Vuppamandla V., Real time signal reconstruction from spikes on a digital signal processor. In Proc. of IEEE International Symposium on Circuits and Systems (ISCAS), pages 1060-1063, Seattle, WA, May 2008.
- 344 Harris J., Principe J., Sanchez J., Chen D., and She C., Pulse-based signal compression for implanted neural recording system. In Proc. of IEEE International Symposium on Circuits and Systems (ISCAS), pages 344-347, Seattle, WA, May 2008.
- 343 Liu W., Principe J., “Extended Recursive Least Squares in RKHS”, in Proc. First IEEE Workshop on Cognitive Signal Processing, Santorini, Greece, 2008.
- 342 Mahmudi B., DiGiovanna J., Principe J., and Sanchez J., “Co-Adaptive Learning in Brain-Machine Interfaces”, in Proc. Brain Inspired Cognitive Systems, S. Luis, Brazil,
- 341 Liu W., Principe J., “The Wellposedness Analysis of the Kernel Adaline”, in Proc. IEEE WCCI, Hong-Kong.
- 340 Paiva A., Park I., Principe J., “Reproducing Kernel Hilbert Spaces for Spike Train Analysis”, in Proc. IEEE ICASSP 2008, Las Vegas.
- 339 Park I., Principe J., “Correntropy Based Granger Causality”, in Proc. IEEE ICASSP 2008, Las Vegas.
- 338 Seth S., Principe J., “Compressed Signal Reconstruction Using the Correntropy Induced metric”, in Proc. IEEE ICASSP 2008, Las Vegas.

-
- 337 Seth S., Ozturk M., Principe J., "Signal processing with echo states networks in the complex domain", in Proc. of IEEE Machine Learning for Signal Processing XVII, Thessaloniki, Greece.
- 336 Han S., Jeong K-H., Principe J., "Robust adaptive minimum entropy beam former in impulsive noise", in Proc. of IEEE Machine Learning for Signal Processing XVII, Thessaloniki, Greece.
- 335 Dongliang D., Liu W., Chen P., Rao M., Principe J., "Variance and Bias analysis of the information potential and symmetry functions" in Proc. of IEEE Machine Learning for Signal Processing XVII, Thessaloniki, Greece.
- 334 Liu, W., Pokharel P., Principe J., "Recursively adapted RBF networks and its relationship to resource allocation Nnetworks and online kernel learning", in Proc. of IEEE Machine Learning for Signal Processing XVII, Thessaloniki, Greece.
- 333 Xu J., Principe J., "A novel pitch determination algorithm based on generalized correlation function", in Proc. of IEEE Machine Learning for Signal Processing XVII, Thessaloniki, Greece.
- 2007**
- 332 Paiva A., Park I., and Principe J., "Innovating Signal Processing for Spike Train Data", Proc. of the 29th Annual International Conference of the IEEE EMBS, Lyon, France.
- 331 Li R., Principe J., Bradley M., Ferrari V., "Robust single-trial ERP estimation based on spatiotemporal filtering", Proc. of the 29th Annual International Conference of the IEEE EMBS, Lyon, France.
- 330 Bourien J., Sanchez J., Bellanger J., Wendling F., Principe J., "Detection of synchronized firings in multivariate neural spike trains during motor tasks", Proc. of the 29th Annual International Conference of the IEEE EMBS, Lyon, France.
- 329 Cheney D., Goh A., Xu J., Gugel K., Harris J., Sanchez J., Principe J. "Wireless, In Vivo Neural Recording using a Custom Integrated Bioamplifier and the Pico System." in Proc. 3rd International IEEE EMBS Conference on Neural Engineering (NER 2007), Kohala Coast, HI, USA.
- 328 DiGiovanna J., Mahmoudi B., Mitzelfelt J., Sanchez J., Principe J. "Brain-Machine Interface Control via Reinforcement Learning." in Proc. 3rd International IEEE EMBS Conference on Neural Engineering (NER 2007), Kohala Coast, HI, USA.

-
- 327 Gunduz A., Ozturk M., Sanchez J., Principe J. "Echo State Networks for Motor Control of Human ECoG Neuroprosthetics." in Proc. 3rd International IEEE EMBS Conference on Neural Engineering (NER 2007), Kohala Coast, HI, USA.
- 326 Li R., Principe J., Bradley M., Ferrari V. "Single-trial ERP estimation based on spatio-temporal filtering." in Proc. 3rd International IEEE EMBS Conference on Neural Engineering (NER 2007), Kohala Coast, HI, USA.
- 325 Wang Y., Sanchez J., Principe J. "Information Theoretical Estimators of Tuning Depth and Time Delay for Motor Cortex Neurons." in Proc. 3rd International IEEE EMBS Conference on Neural Engineering (NER 2007), Kohala Coast, HI, USA.
- 324 Darmanjian S., Paiva A., Principe J., Sanchez J. "Hierarchical Decomposition of Neural Data using Boosted Mixtures of Independently Coupled Hidden Markov Chains." in Proc. International Joint Conference on Neural Networks (IJCNN 2007), Orlando, FL, USA
- 323 Han S., Rao S., Erdoganmus D., Principe J. "A Novel Switching between Adaptive Information Algorithms." in Proc. International Joint Conference on Neural Networks (IJCNN 2007), Orlando, FL, USA
- 322 Liu W., Pokharel P., Principe J., "Kernel LMS as Solving a Lower Triangular Linear System." In Proc. International Joint Conference on Neural Networks (IJCNN 2007), Orlando, FL, USA.
- 321 Paiva A., Rao S., Park I., Principe J. "Spectral Clustering of Synchronous Spike Trains." In Proc. International Joint Conference on Neural Networks (IJCNN 2007), Orlando, FL, USA.
- 320 Park I., Paiva A., Principe J., Harris J. "A Closed Form Solution for Multiple-Input Spike Based Adaptive Filters." In Proc. International Joint Conference on Neural Networks (IJCNN 2007), Orlando, FL, USA.
- 319 Rao S., Han S., Principe J. "Information Theoretic Vector Quantization with Fixed Point Updates." In Proc. International Joint Conference on Neural Networks (IJCNN 2007), Orlando, FL, USA.
- 318 Rao S., Paiva A., Principe J. "A Novel Weighted LBG Algorithm for Neural Spike Compression." In Proc. International Joint Conference on Neural Networks (IJCNN 2007), Orlando, FL, USA.
-

2006

- 317 Park I., Paiva A., DeMarse T. Principe J., “An Efficient Computation of Continuous-time Correlogram of Spike Trains”, Proc. COSYN, 2007.
 - 316 Liu W., Pokharel P., Principe J., “A New Information Theoretic Measure of PDF Symmetry”, in Proc. IEEE ICASSP 2007, Hawaii.
 - 315 Jeong K-H, Han S., Principe J., ‘The Fast Correntropy MACE Filter’, in Proc. IEEE ICASSP 2007, Hawaii.
 - 314 Pokharel P., Liu W., Principe J., ‘Kernel LMS’, In Proc. IEEE ICASSP 2007, Hawaii.
 - 313 Pokharel P., Ozertem U., Erdogmus D., Principe J., “Recursive Complex Blind Source Separation Via Eigendecomposition Of Cumulant Matrices”, in Proc. IEEE ICASSP 2007, Hawaii.
 - 312 Bashirullah R., Harris J., Sanchez J., Nishida T. and Jose C. Principe, “Florida Wireless Implantable Recording Electrodes (FWIRE) for Brain Machine Interfaces” (Invited paper) IEEE ISCAS, 2006
 - 311 Liu W., Pokharel P., Principe J., “Error Entropy, Correntropy, and M-estimation”, in Proc. IEEE Int. Workshop on Machine Learning for Signal Processing,, Maynooth, Ireland.
 - 310 Han S., Principe J., “A Fixed-point Minimum Error Entropy Algorithm”, in Proc. IEEE Int. Workshop on Machine Learning for Signal Processing,, Maynooth, Ireland.
 - 309 Rao S., Medeiros A., Principe J., “A Fixed-point Minimum Error Entropy Algorithm”, in Proc. IEEE Int. Workshop on Machine Learning for Signal Processing,, Maynooth, Ireland.
 - 308 Jeong K-H, Principe J., “The Correntropy Mace Filter For Image Recognition”, in Proc. IEEE Int. Workshop on Machine Learning for Signal Processing, Maynooth, Ireland.
 - 307 Darmanjian S., Sanchez J., Principe J., “Independently Coupled HMM Switching Classifier For A Bimodal Brain-machine Interface”, in Proc. IEEE Int. Workshop on Machine Learning for Signal Processing, Maynooth, Ireland.
 - 306 Nair S., Norman W., Dance L., Pardalos P., Principe J., Carney P., “Effects of Acute Hippocampal Stimulation on EEG Dynamics”, in Proc. IEEE 28th Int. Eng. Medicine Biol. Conf. (EMBC), New York.
-

-
- 305 Sanchez J., Carney P., Principe J., “Analysis of Amplitude Modulated Control Features for ECoG Neuroprosthetics”, in Proc. IEEE 28th Int. Eng. Medicine Biol. Conf. (EMBC), New York.
- 304 Darmanjian S., Cieslewski G., Morrison S., Dang B., Gugel K., Principe J., “A Reconfigurable Neural Signal Processor (NSP) for Brain Machine Interfaces”, in Proc. IEEE 28th Int. Eng. Medicine Biol. Conf. (EMBC), New York.
- 303 Cieslewski G., Cheney D., Gugel K., Sanchez J., Principe J. , “Neural Signal Sampling via the Low Power Wireless Pico System”, in Proc. IEEE 28th Int. Eng. Medicine Biol. Conf. (EMBC), New York.
- 302 Paiva A., Principe J., and Sanchez J., “Gravity Transform for Input Conditioning in Brain Machine Interfaces”, in Proc. IEEE 28th Int. Eng. Medicine Biol. Conf. (EMBC), New York.
- 301 DiGiovanna J., Sanchez J., and Principe J., “Improved Linear BMI Systems via Population Averaging”, in Proc. IEEE 28th Int. Eng. Medicine Biol. Conf. (EMBC), New York.
- 300 Mammone N., Morabito F., Principe J., and Sackellares C., “Visualization of the Short Term Maximum Lyapunov Exponent Topography in the Epileptic Brain”, in Proc. IEEE 28th Int. Eng. Medicine Biol. Conf. (EMBC), New York.
- 299 Li R., Principe J., “Blinking Artifact Removal in Cognitive EEG Data Using ICA”, accepted to the 28th Int. Eng. Medicine Biol. Conf. (EMBC), New York.
- 298 Li P., Principe J., Bashirullah R., “IEEEA wireless power interface for rechargeable battery operated neural recording implants”, in Proc. IEEE 28th Int. Eng. Medicine Biol. Conf. (EMBC), New York.
- 297 Wang Y., Gunduz A., Principe J., “Modulation between Movement Evoked Local Field Potentials and Single Unit Activity in Primary Motor Cortex”, in Proc. IEEE 28th Int. Eng. Medicine Biol. Conf. (EMBC), New York.
- 296 Hegde A., Principe J., Sackellares C., “On Spatio-Temporal Dependency Changes in Epileptic Intracranial EEG: A Statistical Assessment”, in Proc. IEEE 28th Int. Eng. Medicine Biol. Conf. (EMBC), New York.

-
- 295 Fortes J., Figueiredo R., Hermer-Vazquez L., Príncipe J., and Sanchez J., “A New Architecture for Deriving Dynamic Brain-Machine Interfaces” Proc. of the ICCS 2006, Part III, LNCS 3993.
- 294 Gunduz A., Hegde A., and Principe J., “Correntropy as a Novel Measure for Nonlinearity Tests”, in Int. Joint Conf. on Neural Networks, Vancouver, Ca.
- 293 Xu J., Pokharel P., Paiva A., Principe J., “Nonlinear Component Analysis Based on Correntropy” in Int. Joint Conf. on Neural Networks, Vancouver, Ca.
- 292 Liu W., Pokharel P., and Principe J., “Correntropy: A Localized Similarity Measure” in Int. Joint Conf. on Neural Networks, Vancouver, Ca.
- 291 Jenssen R., Erdogmus D., Principe J. and Eltoft T., “Information Theoretic Angle-Based Spectral Clustering: A Theoretical Analysis and an Algorithm” in Int. Joint Conf. on Neural Networks, pp 4904-4911, Vancouver, Ca.
- 290 Park I., Xu D., DeMarse T., and Principe J., “Towards Modeling and Controlling of Synchronized Burst in Neural Populations: An Exploration of Parameter Space”, in Proc. IEEE Int. Joint Conf. on Neural Networks, Vancouver, Ca.
- 289 Wang Y., Paiva A., and Príncipe J., “A Monte Carlo Sequential Estimation for Point Process Optimum Filtering”, in PRoc. IEEE Int. Joint Conf. on Neural Networks, Vancouver, Ca.
- 288 DiGiovanna J., Sanchez J., and Principe J., “Arm Trajectory Reconstruction via Clustering in Joint Angle Space” accepted in Int. Joint Conf. on Neural Networks, Vancouver, Ca.
- 287 Paiva A., Xu J., and Principe J., “Kernel Principal Components are maximum entropy projections”, Proc Int. Workshop on Independent Component Analysis, Charleston, S. Carolina.
- 286 Han S., Rao S., Principe J., “Estimating the Information Potential with the Fast Gauss Transform”, Proc Int. Workshop on Independent Component Analysis, Charleston, S. Carolina.
- 285 Rao S., Sanchez J., Han S., Principe J., “Spike Sorting using Nonparametric Clustering via Cauchy Schwartz PDF divergence”, Proc. IEEE Int. Conf. Acoustics Speech and Signal Processing, Toulouse, France.
-

-
- 2005
- 284 Jeong K-H, Pokharel P., Xu J., Han S., Principe J., "Kernel Based Synthetic Discriminant Function for Object Recognition", Proc. IEEE Int. Conf. Acoustics Speech and Signal Processing, Toulouse, France.
- 283 Han S., Rao S., Jeong K-H., Principe J., "A Normalized Minimum Error Entropy Stochastic Algorithm", Proc. IEEE Int. Conf. Acoustics Speech and Signal Processing, Toulouse, France.
- 282 Xu J., Pokharel P., Jeong K-H., Principe J., "An Explicit Construction of a Reproducing Gaussian Kernel Hilbert Space", Proc. IEEE Int. Conf. Acoustics Speech and Signal Processing, Toulouse, France.
- 281 Pokharel P., Xu J., Erdogmus D., Principe J., "A Closed Form Solution for a Nonlinear Wiener Filter", Proc. IEEE Int. Conf. Acoustics Speech and Signal Processing, Toulouse, France.
- 280 Han S., Rao S., Erdogmus D., Principe J., "An Improved Minimum Error Entropy Criterion with Self Adjusting Stepsize", IEEE Workshop on Machine Learning for Signal Processing, Mystic, Ct.
- 279 Pokharel P., Agrawal R., Principe J., "Correntropy Based Matched Filtering", IEEE Workshop on Machine Learning for Signal Processing, Mystic, Ct.
- 278 Jenssen R., Erdogmus D., Hild K., Principe J. and Eltoft T., "Optimizing the Cauchy-Schwarz PDF Divergence for Information Theoretic, Non-Parametric Clustering," in Proc. Int'l. Workshop on Energy Minimization Methods in Computer Vision and Pattern Recognition (EMMCVPR2005), pp. 34-45, St. Augustine, USA, November 2005.
- 277 Ozturk M., Xu D., Principe, J. "Computing with Transiently Stable States", IEEE Int. Joint Conf. on Neural Networks (IJCNN05), Montreal, Canada
- 276 Wang Y., Kim S-P., Principe, "Comparison of TDNN Training Algorithms in Brain Machine Interfaces", IEEE Int. Joint Conf. on Neural Networks (IJCNN05), Montreal, Canada
- 275 Xu D., Lan J. Principe J., "Direct Adaptive Control: An Echo State Network and Genetic Algorithm Approach" IEEE Int. Joint Conf. on Neural Networks (IJCNN05), Montreal, Canada.
- 274 Goswami D., Zheng Y., DeMarse T., Principe J., "Towards the Modeling of Dissociated Cortical Tissue in the Liquid State Machine
-

Framework” IEEE Int. Joint Conf. on Neural Networks (IJCNN05),
Montreal, Canada.

- 273 Xu J., Erdogmus D., Principe J., “Minimum Error Entropy
Luenberger Observer”, 2005 American Control Conference, Portland,
OR, USA
- 272 Xu J-W, Erdogmus D., Jenssen R., Principe J., “An Information-
Theoretic Perspective to Kernel Independent Components Analysis”,
IEEE Int. Conf. Acoustics Speech and Signal Processing,
Philadelphia, PA.
- 271 Rao Y., Erdogmus D., Kim S-P, Sanchez J., Principe J., Carmena J.,
Nicolelis M., Lebedev M., “Learning Mappings in Brain Machine
Interfaces with Echo State Networks”, IEEE Int. Conf. Acoustics
Speech and Signal Processing, Philadelphia, PA.
- 270 Jenssen R., Erdogmus D., Principe J., Eltoft T., “The Laplacian
Spectral Classifier”, IEEE Int. Conf. Acoustics Speech and Signal
Processing, Philadelphia, PA. **Best student paper Award in
ICASSP 2005.**
- 269 Yan R., He G., Erdogmus D., Kim S-P, Principe J., Liu Y.,
“Separating Spatial and Temporal Activation Patterns in fMRI Using
Competitive Subspace Projection”, IEEE Int. Conf. Acoustics Speech
and Signal Processing, Philadelphia, PA
- 268 Erdogmus D., Rao Y., Principe J., “Supervised Training of Adaptive
Systems with Partially Labeled Data”, IEEE Int. Conf. Acoustics
Speech and Signal Processing, Philadelphia, PA.
- 267 Pukala J., Sanchez J., Principe J., Okun M., “Linear Predictive
Analysis for Targeting the Basal Ganglia in Deep Brain Stimulation
Surgeries”, 2nd IEEE Workshop on NeuroEngineering, Washington
D.C.
- 266 Kim S-P., Sanchez J., Principe J., Carmena J., Nicolelis M.,
“Multiresolution Representations and Data Mining of Neural Spikes
for Brain-Machine Interfaces Modeling”, 2nd IEEE Workshop on
NeuroEngineering, Washington DC
- 265 Darmanjian S., Morrison S., Dang B., Gugel K., Principe J., “A
Portable Wireless DSP System for a Brain Machine Interface”, 2nd
IEEE Workshop on NeuroEngineering, Washington DC

-
- 264 Paiva R., Principe J., Sanchez J., "Self-Organizing Map based Compression of Spike Data", 2nd IEEE Workshop on NeuroEngineering, Washington DC.
- 263 Jenssen R., Erdogmus D., Principe J., Eltoft T., "The Laplacian PDF Distance: A Cost Function for Clustering in a Kernel Feature Space," NIPS'04, pp 625-632, Vancouver, BC, Canada.
- 262 Johnson M., Principe J., "Modeling Limit Cycle Oscillation using Adaptive Signal Processing: A Hybrid Physical Model," Proceedings of ISMA 2004 Noise and Vibration Engineering Conference, Leuven, Belgium.
- 261 Vielva L., Santamaria I., Erdogmus D., Principe J., "On the Estimation of the Mixing Matrix for Underdetermined Blind Source Separation in an Arbitrary Number of Dimensions," ICA'04, Granada, Spain.
- 260 Erdogmus D., Rao Y., Principe J., "Gaussianizing Transformations for ICA," ICA'04, Granada, Spain.
- 259 Xu J., Erdogmus D., Rao Y., Principe J., "Minimax Mutual Information Approach for ICA of Complex-Valued Linear Mixtures," ICA'04, Granada, Spain.
- 258 Kim S., Rao Y., Erdogmus D., Principe J., "Tracking of Multivariate Time-Varying Systems Based on On-Line Variable Selection," MLSP'04, Sao Luis, Brazil.
- 257 Peddaneni H., Erdogmus D., Rao Y., Hegde A., Principe J., "Recursive Principle Components Analysis Using Eigenvector Matrix Perturbation," MLSP'04, Sao Luis, Brazil.
- 256 Jenssen R., Erdogmus D., Principe J., Eltoft T., "Towards a Unification of Information Theoretic Learning and Kernel Methods," MLSP'04, pp 93-102, Sao Luis, Brazil.
- 255 Erdogmus D., Jenssen R., Rao Y., Principe J., "Multivariate Density Estimation with Optimal Marginal Parzen Density Estimation and Gaussianization," MLSP'04, pp 73-82, Sao Luis, Brazil.
- 244 Davis B., Principe J., and Fortes J., "Design and Performance Analysis of Nanoscale Content-Addressable Memories" IEEE NANO 2004, Germany.

-
- 243 Lui H., Hild K., Gao J., Erdogmus D., Príncipe J., Sackellares C., "Evaluation of a BSS Algorithm for Artifacts Rejection in Epileptic Seizure Detection" IEEE EMBS Conf., S. Francisco.
- 242 Hegde A., Erdogmus D. and Príncipe J. " Synchronization analysis of epileptic ECOG data using SOM-based SI measure,", IEEE EMBS, San Fransisco 2004.
- 241 Liu H., Hild K., Gao J., Erdogmus D., Príncipe J., Sackellares C., "Epileptic Seizure Detection from ECoG Using Recurrence Time Statistics" IEEE EMBS Conf., S. Francisco.
- 240 Hegde A., Erdogmus D., Rao Y. and Príncipe J., "Vector Quantization by density matching in the minimum Kullback-Liebler divergence sense," IJCNN 2004, Budapest, Hungary.
- 239 Ozturk M. , Xu D. and Príncipe J., "Modified Freeman Model: A Stability Analysis and Application to Pattern Recognition" IJCNN 2004, Budapeste, Hungary.
- 238 Rao Y., Kim S., Sanchez J., Erdogomus D., Príncipe J., Carmena J., Lebedev M. and Nicolelis M., "Learning mappings in brain-machine interfaces with echo state networks," Proceedings of the International Joint Conference on Neural Networks, Budapest, Hungary.
- 237 Xu D., Príncipe J., Harris J., " Logic Computation Using Coupled Neural Oscillators," IEEE Intl. Symposium on Circuits and Systems, 2004.
- 236 J. Cho, J. Lan, J.C. Príncipe and M.A. Motter, "Modeling and Control of Unknown Chaotic Systems via Multiple Models," Proc. Intl. Work. On Neural Networks for Signal Processing, Apr 2004.
- 235 Jenssen R., Eltoft T., Príncipe J., "Information theoretic spectral clustering", Int. Joint Conf. on Neural Networks, pp 111-116, Budapest, Hungary.
- 234 Lehn-Schioler L., D. Erdogmus, J.C. Príncipe, "Parzen Particle Filters," ICASSP'04, Montreal, Canada, Jan 2004.
- 233 Erdogmus D., R. Yan, E.G. Larsson, J.C. Príncipe, J.R. Fitzsimmons, "Mixture of Competitive Linear Models for Phased-Array Magnetic Resonance Imaging," ICASSP'04, Montreal, Canada, Jan 2004.

2003

- 232 Xu J., D. Erdogmus, J.C. Principe, "Minimizing the Fisher Information of the Error in Supervised Adaptive Filter Training," ICASSP'04, Montreal, Canada, Jan 2004.
- 231 Rao Y., D. Erdogmus, J.C. Principe, "Accurate Linear Parameter Estimation in Colored Noise," ICASSP'04, Montreal, Canada, Jan 2004.
- 230 Cho J., Principe J. and Motter M., "Local Hammerstein Modeling Based on Self-Organizing Map," Proc. Intl. Work. On Neural Networks for Signal Processing, 1:20-24, Sept 2003.
- 229 Cho J., Principe J. and Motter M., "A Local Linear Modeling Paradigm with a Modified Counterpropagation Network," Proc. Intl. Joint Conf. on Neural Network, 1:34-38, Sept 2003.
- 228 Jenssen R., Principe J., Eltoft T., "Information cut and information forces for clustering", IEEE Workshop on Neural Networks for Signal Processing, pp 459-468, Toulouse, France.
- 227 Xu D., Deng L., Harris J., Principe J., "Design of a reduced KII set and network in analog VLSI", Intl. Joint Conf. on Neural Networks, Vol. 5, pp. 837-840, May 2003.
- 226 Xu J., D. Erdogmus, M.C. Ozturk, J.C. Principe, "Recursive Renyi's Entropy Estimator for Adaptive Filtering," in ISSPIT'03, Darmstadt, Germany, Dec 2003.
- 225 Sanchez J, D. Erdogmus, Y.N. Rao, S.P. Kim, M. Nicolelis, J. Wessberg, J.C. Principe, "Interpreting Neural Activity Through Linear and Nonlinear Models for Brain Machine Interfaces," Proceedings of EMBS'03, pp. 2160-2163, Cancun, Mexico, Sep 2003.
- 224 Hegde A., Erdogmus D., Rao Y., Principe J., Gao J., "SOM-Based Similarity Index Measure: Quantifying Interactions Between Multivariate Structures," Proceedings of NNSP'03, pp. 819-828, Toulouse, France, Sep 2003.
- 223 Marossero D., Erdogmus D., Euliano N., Principe J., Hild K., "Independent Components Analysis for Fetal Electrocardiogram Extraction: A Case for the Data Efficient Mermaid Algorithm," Proceedings of NNSP'03, pp. 399-408, Toulouse, France, Sep 2003.
- 222 Rao Y., Erdogmus D., Rao G., Principe J., "Fast Error Whitening Algorithms for System Identification and Control," Proceedings of NNSP'03, pp. 309-318, Toulouse, France, Sep 2003.

-
- 221 Sanchez J., Erdogmus D., Rao Y., Principe J., Nicolelis M., and Wessberg J., "Learning the Contributions of the Motor, Premotor, and Posterior Parietal Cortices for Hand Trajectory Reconstruction in a Brain Machine Interface," IEEE EMBS Neural Engineering Conference, 59-62, Capri, Italy, 2003.
- 220 Lin A., Gugel K., Principe J. "Feasibility of fixed-point transversal adaptive filters in FPGA devices with embedded DSPblocks" in 3rd IEEE International Workshop on System-on-Chip for Real-Time Applications (IWSOC 03).
- 219 Davis B., Erdogmus D., Rao Y., Principe J., "Supervised Synaptic Weight Adaptation for a Spiking Neuron," in Proceedings of IJCNN'03, Portland, Oregon, Jan 2003.
- 218 Jenssen R., Hild K., Erdogmus D., Principe J., Eltoft T., "Clustering Using Renyi's Entropy," in Proceedings of IJCNN'03, pp523-528, Portland, Oregon, Jan 2003.
- 217 Kim S-P., Sanchez J., Erdogmus D., Rao Y., Principe J., Nicolelis, M."Modeling the Relation from Motor Cortical Neuronal Firing to Hand Movements Using Competitive Linear Filters and a MLP," in Proceedings of IJCNN'03, Portland, Oregon, Jan 2003.
- 216 Erdogmus D., Fontenla-Romero O., Principe J., Alonso-Betanzos A., Castillo E., Jenssen R., "Accurate Initialization of Neural Network Weights by Backpropagation of the Desired Response," in Proceedings of IJCNN'03, Portland, Oregon, Jan 2003.
- 215 Ozturk M., Principe J., Davis B., Erdogmus D., "Simulation of the Freeman Model of the Olfactory Cortex: A Quantitative Performance Analysis for the DSP Approach," in Proceedings of IJCNN'03, Portland, Oregon, Jan 2003.
- 214 Rao Y., Erdogmus D., Principe J., "Error Whitening Criterion for Linear Filter Estimation," in Proceedings of IJCNN'03, Portland, Oregon, Jan 2003.
- 213 Fontenla-Romero O., Erdogmus D., Principe J., Alonso-Betanzos A., Castillo E., "Linear Least-Squares Based Methods for Neural Networks Learning," Proceedings of ICANN'03, Istanbul, Turkey, vol. 2714, pp. 84-91.
- 212 Jenssen R., Erdogmus D., Hild K., Principe J., Eltoft T., "Information Force Clustering Using Directed Trees," in Proceedings of EMMCVPR'03, Lisbon, Portugal, Jan 2003.
- 211 Erdogmus D., Rao Y., Ozturk M., Vielva L., Principe J., "On the Convergence of SIPEX: A Simultaneous Principal Components Extraction Algorithm," in Proceedings of ICASSP'03, vol. 2, pp. 697-700, Hong Kong, Apr 2003.
-

-
- 210 Kim S-P., Rao Y., Erdogmus D., Principe J., "A Hybrid Subspace Projection Method for System Identification," in Proceedings of ICASSP'03, vol. 6, pp. VI_321-VI_324, Hong Kong, Apr 2003.
- 209 Lazaro M., Santamaria I., Pantaleon C., Erdogmus D., Principe J., "Matched Pdf-Based Blind Equalization," in Proceedings of ICASSP'03, vol.4, pp. IV_297-IV_300, Hong Kong, Apr 2003.
- 208 Yan R., Erdogmus D., Larsson E., Principe J., Fitzsimmons J., "Image Combination for High-Field Phased-Array MRI," in Proceedings of ICASSP'03, vol. 5, pp. V_1-V_4, Hong Kong, Apr 2003.
- 207 Lai C., Erdogmus D., Principe J., "Echo Cancellation by Global Optimization of Kautz Filters Using an Information Theoretic Criterion," Proceedings of ICASSP'03, vol. 6, pp. VI_197-VI-200, Hong Kong, Apr 2003.
- 206 Erdogmus D., Rao Y., Principe J., Fontenla-Romero O., Alonso-Betanzos A., "Recursive Least Squares for an Entropy Regularized MSE Cost Function," Proceedings of ESANN'03, pp. 451-455, Bruges, Belgium, Apr 2003.
- 205 Fontenla-Romero O., Erdogmus D., Principe J., Alonso-Betanzos A., Castillo E., "Accelerating the Convergence Speed of Neural Network Learning Methods Using Least Squares," Proceedings of ESANN'03, pp. 255-260, Bruges, Belgium, Apr 2003.
- 204 Thogulua R., Erdogmus D., Principe J., "Self-Organization of Multiple Agents Using Information Theoretic Interactions," Proceedings of ICONS'03, pp. 574-579, Faro, Portugal, Apr 2003.
- 203 Vielva L., Pereiro Y., Erdogmus D., Principe J., "Inversion Techniques for Underdetermined BSS in an Arbitrary Number of Dimensions," Proceedings of ICA'03, pp. 131-136, Nara, Japan, Apr 2003.
- 202 Erdogmus D., Hild K., Rao Y., Principe J., "Independent Components Analysis Using Jaynes' Maximum Entropy Principle," Proceedings of ICA'03, pp. 385-390, Nara, Japan, Apr 2003.
- 201 Erdogmus D., Hegde A., Hild K., Ozturk M., Principe J., "A Brute Force Analytical Formulation of the Independent Components Analysis Solution," Proceedings of ICA'03, pp. 791-796, Nara, Japan, Apr 2003.
- 200 Lazaro M., Santamaria I., Pantaleon C., Erdogmus D., Hild K., Principe J., "Blind Equalization by Sampled PDF Fitting," Proceedings of ICA'03, pp. 1041-1046, Nara, Japan, Apr 2003.
- 199 Sanchez J., Erdogmus D., Rao Y., Principe J., Nicolelis M., Wessberg J., "Learning the Contributions of the Motor, Premotor, and Posterior
-

- Parietal Cortices for Hand Trajectory Reconstruction in a Brain Machine Interface," Proceedings of CNE'03, pp. 59-62, Capri Island, Italy, Mar 2003.
- 198 Thampi G., Principe J., Motter M., Cho J., Lan J., "Multiple Model-based Flight Control Design," IEEE Midwest Symposium on Circuits and Systems, Aug. 2002.
- 197 Sanchez J., Kim S-P., Erdogmus D., Rao Y., Principe J., Wessberg J., Nicolelis M., "Input-Output Mapping Performance of Linear and Nonlinear Models for Estimating Hand Trajectories from Cortical Neuronal Firing Patterns," Proc. of IEEE Workshop on Neural Networks for Signal Proc., 139-148, Martigni, Switzerland.
- 196 Rao Y., Principe J., "Robust On-line Principal Component Analysis Based on a Fixed-Point Approach", Proc. ICASSP 2002, vol 1, 981-984.
- 195 Rao Y., Principe J., "Efficient Total Least Squares Method For System Modeling Using Minor Component Analysis", Proc. of IEEE Workshop on Neural Networks for Signal Proc., 259-264, Martigni, Switzerland
- 194 Erdogmus D., Sanchez J., Principe J., "Modified Kalman Filter Based Method for Training State-Recurrent Multilayer Perceptrons," Proc. of IEEE Workshop on Neural Networks for Signal Proc., 219-228, Martigni, Switzerland.
- 193 Erdogmus D., Principe J., Kim S-P., Sanchez J., "A Recursive Renyi's Entropy Estimator," Proc. of IEEE Workshop on Neural Networks for Signal Proc., 209-217, Martigni, Switzerland.
- 192 Erdogmus D., Principe J., Hild K., "Do Hebbian Synapses Estimate Entropy?", Proc. of IEEE Workshop on Neural Networks for Signal Proc., 199-208, Martigni, Switzerland.
- 191 Sanchez J., Erdogmus D., Principe J., Wessberg J., Nicolelis M., "A Comparison Between Nonlinear Mappings and Linear State Estimation to Model the Relation from Motor Cortical Neuronal Firing to Hand Movements," Workshop on Motor Control, 59-65, Edimburg, Scotland.
- 190 Thampi G., Principe J., Cho J., Erdogmus D., Motter M., "Adaptive Inverse Control Using SOM Based Multiple Models," Proc. CONTROLO 2002, 278-282.

-
- 189 Obolensky N., Erdogmus D., Principe J., "A Time-Varying Kalman Filter Applied to Moving Target Tracking," Proc. CONTROLO 2002, 418-422.
- 188 Erdogmus D., Thampi G., Principe J., "Adaptive Linear Observer for Nonlinear Systems," Proc. CONTROLO 2002, 56-60.
- 187 Erdogmus D., Principe J., Vielva L., Luengo D., "Potential Energy and Particle Interaction Approach for Learning in Adaptive Systems," Proc. ICANN 2002, 456-461.
- 186 Vielva L., Santamaria I., Pantaleon C., Ibanez J., Erdogmus D., Principe J., "Estimation of the Mixing Matrix for Underdetermined Blind Source Separation Using Spectral Estimation Techniques," Proc. EUSIPCO 2002, vol 1, 557-560.
- 185 Erdogmus D., Principe J., Vielva L., "Blind Deconvolution with Renyi's Minimum Entropy," Proc. EUSIPCO 2002, vol 1, 561-564.
- 184 Erdogmus D., Rao Y., Principe J., Fontenla-Romero O., Vielva L., "An Efficient, Robust, and Fast Converging Principal Components Extraction Algorithm: SIPEX-G," Proc. EUSIPCO 2002, vol 2, 335-338.
- 183 Erdogmus D., Hild K., Principe J., Vielva L., "Blind Separation of Uncorrelated Sources via Principal Components Analysis of Observations for a Symmetric Mixing Matrix," Proc. EUSIPCO 2002, vol 2, 75-78.
- 182 Vielva L., Erdogmus D., Pantaleon C., Santamaria I., Pereda J., Principe J., "Underdetermined Blind Source Separation in a Time-Varying Environment," Proc. ICASSP 2002, vol 3, 3049-3052.
- 181 Erdogmus D., Rao Y., Principe J., Zhao J., Hild K., "Simultaneous Extraction of Principal Components Using Givens Rotations and Output Variances," Proc. ICASSP 2002, vol 1, 1069-1072.
- 180 Hild K., Erdogmus D., Principe J., "Blind Source Separation of Time-Varying, Instantaneous Mixtures Using an On-Line Algorithm," Proc. ICASSP 2002, vol 1, 993-996.
- 179 Hild K., Erdogmus D., Principe J., "On-Line Minimum Mutual Information Method for Time-Varying Blind Source Separation," in Proc. ICA 2001, 126-131.

2001

-
- 178 Erdogmus D., Vielva L., Principe J., "Nonparametric Estimation and Tracking of the Mixing Matrix for Underdetermined Blind Source Separation," in Proc. ICA 2001, 189-194.
- 177 Vielva L., Erdogmus D., Principe J., "Underdetermined Blind Source Separation Using a Probabilistic Source Sparsity Model," in Proc. ICA 2001, Dec 2001.
- 176 Erdogmus D., Principe J., "An On-Line Adaptation Algorithm for Adaptive System Training with Minimum Error Entropy: Stochastic Information Gradient," in Proc. ICA 2001, Dec 2001.
- 175 Garani S., Principe J., "Dynamic vector quantization of speech", Proc. WSOM2, 238-245.
- 174 Xu D., Principe J., "Feature ranking using Renyi's mutual information", in Proc. Int. Joint Conf. Neural Networks, Washington DC.
- 173 Erdogmus D. Principe J., "Information transfer through classifiers and its relation to the probability of error", in Proc. Int. Joint Conf. Neural Networks, Washington DC.
- 172 Erdogmus D., Hild K., Principe J., "Independent component analysis using Renyi's mutual information and Legendre density estimation", in Proc. Int. Joint Conf. Neural Networks, Washington DC.
- 171 Erdogmus D., Principe J., "Entropy minimization algorithms for MLPs", in Proc. Int. Joint Conf. Neural Networks, Washington DC.
- 170 Fancourt C., Principe J., "Optimization in companion search spaces: the case of cross entropy and the Levenberg-Marquardt algorithm", in Proc. IEEE ICASSP 2001.
- 169 Erdogmus D., Rende D., Principe, J., Wong T., "Nonlinear channel equalization using MLPs with an information theoretic criterion", in IEEE Neural Net. Sig. Proc. Workshop, Falmouth, MA.
- 168 Erdogmus D., Principe J., "Convergence analysis of the information potential criterion in FIR filter training", in IEEE Neural Net. Sig. Proc. Workshop, Falmouth, MA.
- 167 Santamaria I., Principe J., "Minimizing BER in DFE's with the Adatron Algorithm", in IEEE Neural Net. Sig. Proc. Workshop, Falmouth, MA.

-
- 166 Tavares V., Principe J., and Harris J., "A silicon olfactory bulb oscillator", In IEEE International Symposium on Circuits and Systems, volume V, pages 397--400, Geneva, Switzerland.
- 165 Rao Y., Principe J., "A fast on-line algorithm for PCA and its convergence characteristics", accepted in IEEE Workshop Neural Netw. Signal Proc., 299-307, Sidney, Australia.
- 164 Principe J., Xu D., Learn A., Zhao Q., "Statistical Pose Estimation of Land Vehicles in SAR", in Proc SPIE, vol 4053, 310-321, Orlando.
- 163 Yen L., Bhikkaji S., Principe J., "Local intensity tests for optimal detectability", in Proc SPIE, vol 4053, 296-309, Orlando.
- 162 Zhao Q., Principe J., "Incorporating negative exemplars to improve SAR ATR", in Proc. SPIE, vol 4053, 354-360, Orlando.
- 161 Principe, J, Erdogmus D., "From linear adaptive to information filtering", invited lecture, Symposium 2000 on Adaptive Systems for Signal Proc. Comm. and Controls, 99-104, Alberta, CA
- 160 Rao Y., Principe J., "A fast on-line generalized eigendecomposition algorithm for time series segmentation, Symposium 2000 on Adaptive Systems for Signal Proc. Comm. and Controls, 266-271, Alberta, CA.
- 159 Fancourt C., Principe J., "On the use of Neural Networks in the Generalized Likelihood Ratio Test for Detecting Abrupt Changes in Signals", in Proc. IJCNN 2000, vol 2, 243-249, Como, Italy
- 158 Erdogan D., Principe J., "Comparison Of Entropy And Mean Square Error Criteria In Adaptive System Training Using Higher Order Statistics", Proc. ICA 2000, 75-80, Helsinki.
- 157 Blanco-Archipilla, Y., Santiago Z., Principe J., "Alternative Statistical Gaussianity Measure Using The Cumulative Density Function", Proc. ICA2000, 537-542, Helsinki.
- 156 Teixeira A., Vaz F., Principe J., "Nasal vowels following a nasal consonant", in Proc. 5th CREST Workshop on Speech Production, Bavaria Germany.
- 155 Haselsteiner E., Principe J., "Supervised learning without numerical targets- An information theoretic approach" in Proc. Eusipco, Finland.

1999

- 154 Fancourt C., Principe J., "On the relation between the Karhunen Loeve transform and the prolate spheroidal functions", in Proc. ICASSP 2000, vol 1 261-264.
- 153 Euliano N., Principe J., "Dynamic subgrouping in RTRL provides a faster O(N2) algorithm", in Proc. ICASSP2000, vol 6 3418-3421.
- 152 Gokcay E., Principe J., "A new clustering evaluation function based on Renyi's information potential", in Proc. ICASSP 2000, vol 6, 3490-3493.
- 151 Brennan V., Principe J., "Multiresolution using Principal Component Analysis", in Proc. ICASSP 2000, vol 6, 3474-3477.
- 150 Euliano N. and Principe J., "A spatio-temporal memory based on SOMs with activity diffusion", invited paper in Workshop on Self-Organizing Maps, 253-266, Helsinki, Finland.
- 149 Wu H-S, J. Principe, J. Harris, and J-K Juan, "Loss function for blind source separation-minimum entropy criterion and its generalized anti-Hebbian rules" 1999. IJCNN '99. International Joint Conference on , Volume: 2 , 910 -915.
- 148 Zhao Q., and Principe J., "Forming Large Margins with Support Vector Machines For Synthetic Aperture Radar Automatic Target Recognition", Automatic Target Recognition IX, vol 3718, 101-107, SPIE Conference, Orlando.
- 147 Wu H-C, Principe J., "Novel Quadratic Gaussianity Measures and their applications to BSS", IEEE Workshop Neural Nets for Sign. proc., 58-66, Madison, Wisconsin.
- 146 Xu D., Principe J., "Training multilayer perceptrons layer by layer", Int. J. Conf. Neural Nets. (IJCNN), pp 232-237, Washington.
- 145 Teixeira A., Vaz F., Principe J., "Influence of dynamics in the perceived naturalness of portuguese nasal vowels", Proc. XIVth Int. Cong. Phonetic Sci., pp 234-238, San Francisco, California.
- 144 Teixeira A., Vaz F., Principe J., " Effects of source-tract interaction in perception of nasality", Proc. EuroSpeech'99, vol 1, 161-164, Budapest, Hungary.
- 143 Wu H-C., Principe J., "Generalized anti-Hebbian learning for source separation", Proc. IEEE Int. Conf. Acoustic Speech Signal Proc. ICASSP'99, paper 2394.

1998

- 142 Xu D. and Principe J., "Training multilayer perceptron layer by layer with information potential", Proc. IEEE Int. Conf. Acoustic Speech Signal Proc. ICASSP'99, paper 2465.
- 141 Karthik K., Principe J., and Childers D., "Nonlinear dynamic analysis of the voice excitation for improved speech synthesis", Proc. IEEE Int. Conf. Acoustic Speech Signal Proc. ICASSP'99, paper 2386.
- 140 Wu H-C, Principe J., "Simultaneous diagonalization in the frequency domain for source separation", Proc. First Int. Workshop on Ind. Comp. Anal. ICA'99, 245-250, Aussois, France.
- 139 Mejuto C., Principe, J., "A second order method for blind source separation of convolutive mixtures", Proc. First Int. Workshop on Ind. Comp. Anal. ICA'99, 395-400, Aussois, France.
- 138 Principe J., Xu D., "Information Theoretic Learning using Renyi's quadratic entropy", in Proc. ICA'99, 407-412, Aussois, France.
- 137 Fisher J., Principe J., "Blind source separation by interactions of output signals", IEEE Workshop on Sig. Proc.DSP98, Utah.
- 136 Zhao Q., Xu D., Principe J., "Pose estimation for SAR Automatic Target Recognition", Image Underst. Workshop, vol II, 827-831, Pacific Grove, Ca.
- 135 Boillot M., Principe J., "An algorithm development and support database for MSTAR", Image Underst. Workshop, vol II, 821-825, Pacific Grove, Ca.
- 134 Principe J., Zhao Q., Xu D., "A novel classifier architecture exploiting pose information for SAR/ATR", Image Underst. Workshop, vol II, 833-837, Pacific Grove, Ca.
- 133 Wu H-C., Principe J., "Minimum entropy algorithms for source separation", Proc. IEEE 41 Midwest Symp. Circ. Syst., 242-245, Indiana.
- 132 Tavares V., Principe J., Towards a silicon implementation of the olfactory system", Proc. International Conference on Electronics, Circuits and Systems (ICECS98), Vol. 2, 1998, pp 131-134.
- 131 Xu D., Principe J., "Learning from examples with mutual information", Proc. IEEE Workshop on NNSP, 155-164.

-
- 130 Brennan V., Principe J., "Face classification using PCA and multiresolution", Proc. IEEE Workshop on NNSP, 506-515.
- 129 Principe J., Euliano N., Lefebvre C., "Teaching adaptive systems with an interactive, electronic book", in Proc. CALISCE98, 319-324, Chalmer U., Sweden.
- 128 Xu D., Principe J., Fisher J., Wu H., A novel measure for independent component analysis, in Proc. ICASSP98, vol II 1161-1164.
- 127 Principe J., Euliano N., Lefebvre C., "An interactive learning environment for adaptive system instruction", in Proc. ICASSP98, vol III 1901-1904.
- 126 Wu H., Principe J., Xu D., "Exploring the time frequency microstructure of speech for blind source separation", in Proc. ICASSP98, vol II 1145-1148.
- 125 Principe J., Xu D., "Learning from examples with quadratic mutual information", in Proc. Machines that Learn, Snowbird, Utah.
- 124 Fancourt C., Principe J., "Modeling time dependencies in the mixture of experts", in Proc. IJCNN 98, vol III 2324-2328.
- 123 Coggins K., Principe J., Detection and classification of insect sounds in a grain silo using neural networks", in Proc. IJCNN 98, vol III 1760-1764.
- 122 Cochofel H., Wooten D., Principe, J., "A neural network environment for adaptive inverse control", in Proc. IJCNN 98, vol II 963.
- 121 Xu D. Principe J., Wu H-C., "A principal component network for generalized eigen-decomposition, in Proc. IJCNN 98, vol II 849.
- 120 Euliano N., Principe J., "Temporal plasticity in self-organizing networks", in Proc. IJCNN 98, vol II 1063-1067.
- 119 Tavares V., Principe J., "Discrete network implementation of KII and KIII Freeman models, in Proc. IJCNN 98 vol II 1488-1492.
- 118 Fisher J., Principe J., "A methodology for information theoretic feature extraction", in Proc. IJCNN 98 vol III 1712-1716.
- 117 Xu D, Fisher J., Principe J., "Mutual information approach to pose estimation", accepted in SPIE 98, Algorithms for synthetic aperture radar imagery V, Ed. Ed Zelnio, vol 3370, 218-229.
-

-
- 1997
- 116 Candocia F., Principe J., "A method using multiple models to super-resolve SAR imagery", accepted in SPIE 98, Algorithms for synthetic aperture radar imagery V, Ed. Ed Zelnio, vol 3370, 197-207.
 - 115 Teixeira A., Vaz F., Principe J., "Some studies of european portuguese nasal vowels using an articulatory synthetizer", in 5th IEEE Int. Conf. Elec. Circ. and Syst., vol 3, 205-208, Lisbon, Portugal.
 - 114 Teixeira A., Vaz F., Principe J., "A software tool to study portuguese vowels", in Proc EuroSpeech'97, vol 5, 2543-2546, Rhodes, Greece.
 - 113 Fancourt C., Principe J., "Soft competition principal component analysis using the mixture of experts", Proc. of the Image Understanding Workshop, 1071-1076, New Orleans.
 - 112 Fisher J., Principe J., "A nonparametric methodology for information theoretic feature extraction", Proc. of the Image Understanding Workshop, 1077- 1084, New Orleans.
 - 111 Candocia F., Principe J., "A self-organizing principle for segmenting and super-resolving ISAR images", Proc. of the Image Understanding Workshop, 1161-1166, New Orleans.
 - 110 Yen L., Principe J., "Target detection in UWB images using temporal fusion", Proc. of the Image Understanding Workshop, vol II 1155-1160, New Orleans.
 - 109 Fisher J., Principe J., "Entropy manipulation of arbitrary nonlinear mappings", in Proc. IEEE Workshop NNSP7, 14-23, Amelia Island.
 - 108 Principe J. Xu D., "Feature extraction with on-line PCA, LDA and constrained LDA", in Proc. IEEE Workshop NNSP7, 286-297.
 - 107 Juan J., Harris J., Principe J., "Locally recurrent networks with multiple time scales", in Proc. IEEE Workshop NNSP7, 645-644.
 - 106 Wu H., Principe J., "A new criterion for blind source separation and decorrelation: simultaneous diagonalization of correlation matrices", in Proc. IEEE Workshop NNSP7, 496-508.
 - 105 Motter M., Principe J., "Neural Control of the NASA Langley 16-foot transonic tunnel", Proc. American Control Conference, ISBN: 0-7803-3835-9, CD-Rom Edition, Albuquerque, NM, 1997.
-

1996

- 104 Principe J., Xu D., Wang C., "Generalized Oja's rule for linear discriminate analysis with Fisher criterion", in Proc. ICASSP97, vol IV, 3401-3404.
- 103 Fancourt C., Principe J., "Temporal self-organization through competitive prediction", in Proc. ICASSP 97, vol IV, 3325-3329.
- 102 Candocia F., Principe J., "A neural implementation of interpolation with a family of kernels", in Proc. ICNN97, Vol III, 1506-1511, Houston.
- 101 Yen L., Principe J., "Adaptive target detection in UWB images using Laguerre networks", in Proc. ICNN 97, vol IV, 2072-2075, Houston.
- 100 Juan J., Harris J., Principe J., "Analog hardware implementation of adaptive filter structures". In Proc. ICNN97, vol II, 916-921, Houston.
- 99 Yen L., Principe J., Fisher J., "Focus of attention in UWB SAR images using recurrent networks" Vol IV, 3115-3118, SPIE 97.
- 98 Principe J., "Neural networks for Signal Processing", Survey paper, Proc 1st Euro. Conf. Nonlin. Sig. Proc., 60-64, Prague.
- 97 Juan J-K., Harris J., Principe J., "Analog VLSI implementations of continuous time memory structures", in Proc. ISCAS, 338-340, Atlanta.
- 96 Kim M. and Principe, J., "Artificial neural networks with Gamma kernels for automatic target detection", in Proc. ICNN, vol 3, 1594-1599, Washington.
- 95 Schwartz O., Harris J., Principe J., "Modeling the precedence effect for speech signals", in PRoc. 5th Annual Comp. Neuroscience Meeting CNS '96, V- 819-826, Boston.
- 94 Fancourt C., Principe J., "Temporal Self-Organization through Competitive Prediction", Yale Workshop on Adaptive Systems. Invited paper, pp 8-12.
- 93 Lefebvre C., Principe J., Competitive Discriminant Function networks: A novel unsupervised algorithm to find modal boundaries, in Proc. WCNN, 359-362, San Diego.
- 92 Euliano N., Principe J., "Spatio-Temporal Self-Organizing Feature Maps", in Proc. ICNN, 1900-1905, Washington.

1995

-
- 91 Fancourt C., Principe J., "A Neighborhood Map of Competing one step Predictors for Piecewise Segmentation of Time Series", in Proc. ICNN, 1906-1911, Washington.
 - 90 Fisher J., Principe J., "Unsupervised Learning for Nonlinear Synthetic Discriminant Functions", in Proc. SPIE 96, Orlando.
 - 89 Kim M., Principe J., "A New CFAR Stencil for Target Detection in Synthetic Aperture Radar Imagery", SPIE 96, vol 2757, pp 432-442, Orlando.
 - 88 Hsu Hu, Fu L., Principe J., "Context Analysis by the Gamma Network", in Proc. ICNN96, 682-687, Washington.
 - 87 Principe J., Wang C., Wu H., "Temporal Decorrelation Using Teacher Forcing Anti-Hebbian Learning and Its Applications in Adaptive Blind Source Separation", accepted to NNSP96, Japan.
 - 86 Edmonson W., Srinivasan K., Wang C., Principe J., "Stochastic approximation with smoothing for optimization of an adaptive recursive filter", Floudas and Pardalos, Eds., State of the art in global optimization, Kluwer, 249-265.
 - 85 Jones, D., Principe J., "Optimal parameter estimation of the Laguerre filter via de complex performance function", in Proc. ASIOMAR 96, vol II, 805-808.
 - 84 Ismail M. Y., Principe J., "Equivalence between the RLS algorithms and the ridge regression techniques", in Proc. ASIOMAR 96, vol II, 1083-1087.
 - 83 Wang, C., Yen L., Principe J., "On line transform domain LMS algorithm implemented with PCA learning", in Proc. WCNN, 599 -602.
 - 82 Iasemidis L., Pappas K., Principe J., Sackellares C., "Spatio temporal Dynamics of Human Epileptic Seizures", Proc. 3rd Conference Experimental Chaos, World Scientific.
 - 81 Principe J., Radisavljevic A., Kim M., Fisher J., Hyett M., Novak L., "Target pre-screening based on 2D gamma kernels", in Proc. SPIE 95 Conference, vol. 2487, pp 251-8. Orlando, Florida.

1994

-
- 80 Principe J., Wang L., "Nonlinear time series modelling with self-organizing feature maps", IEEE Workshop Neural Networks for Signal Proc, pp 11-20.
 - 79 Wang C., Principe J., "A Relation between Hebbian and MSE learning in Nonlinear Neural Networks", in Proc. World Conference in Neural Networks, vol 1, pp. 540-543, Washington.
 - 78 Motter M., Principe J., "Classification and prediction of wind tunnel Mach number responses using both competitive and Gamma neural networks", accepted to World Conference in Neural Networks (WCNN), vol 2, pp25-29, Washington.
 - 77 Fisher J., Principe J., "Experimental results using a nonlinear extension of the MACE filter", in Proc. SPIE 95 Conference, vol 2752, 1-12, Orlando, Florida.
 - 76 Fancourt C., Euliano N., Principe J., "Word spotting with the gamma neural model", in Proc. SPIE 95 Conference, vol 2493, pp 700-708, Orlando, Florida.
 - 75 Lee J., Principe J., Hanes D., "Velocity measurements of granular flow with a Hopfield Network", IEEE Workshop Neural Networks for Signal Processing, pp 380 - 387.
 - 74 Wang C., Kuo J.M., Principe J., "A relation between Hebbian and MSE learning", Proc. ICASSP 95, pp. 3363 - 3366.
 - 73 Celebi S., Principe J., "Magnitude spectral estimation via Poisson moments with application to speech recognition", Proc. ICASSP 95, pp. 393 - 396.
 - 72 Wang C., Kuo J-M., Principe J., "Using anti-Hebbian training to find orthogonal signals", Proc. Int. Symp. Neural Networks, pp 608-613, Taiwan, 1994.
 - 71 Kuo J., Principe J., "A systematic approach to chaotic time series modelling with artificial neural networks", Proc. IEEE Workshop on Neural Networks for Signal Processing, Ermioni, Greece, pp. 661-670.
 - 70 Celebi S., Principe J., "Spectral Feature extraction using Poisson moments", in Proc. IEEE Workshop on Neural Networks for Signal Processing, Ermioni, Greece, pp. 155-162.

-
- 69 Hsu H-H, Fu L-M., Principe J., “A knowledge-based approach to supervised incremental learning”, Proc. IEEE WCCI, vol 3, pp. 1793-1798, Orlando, FL.
- 68 Fu L-M., Hsu H-H, Principe J., “Sleep staging by integrating expert networks and a contextual neural model”, Proc. Int. Symp. Integrat. Knowledge and Neural Heuristics, pp. 163-170, Pensacola, FL.
- 67 Principe J., Motter M., “System Identification with dynamic neural networks”, Proc. World Cong. on Neural Nets (WCNN), vol 2, pp. 284-289, San Diego, CA.
- 66 Principe J., Turner L., “Word spotting with the gamma neural model”, Proc. WCNN '94, vol 4, pp. 502-505, San Diego, CA.
- 65 Motter M., Principe J., “A gamma memory neural network for system identification”, Proc. IEEE World. Cong. on Comput. Intell. (WCCI'94), vol 5, pp. 3232 - 3237, Orlando, FL.
- 64 Wang C., Principe J., “A simplified statistical analysis of feedforward neural classifier”, Proc. IEEE WCCI '94, vol 2, pp. 806- 810, Orlando, FL.
- 63 Celebi S., Principe J., “Analysis of spectral feature extraction using the gamma filter”, Proc. IEEE WCCI '94, vol 7, pp. 4497-4501, Orlando, FL.
- 62 Fisher J., Principe J., “Formulation of the MACE filter as a linear associative memory”, Proc. IEEE WCCI '94, vol 5, pp. 2934-2936, Orlando, FL.
- 61 Kuo J-M., Principe J. “Noise Reduction in state space using the focused gamma model”, Proc. ICASSP 94, vol 2, pp. 533-536, Adelaide.
- 60 Palkar M., Principe J., “Echo cancellation with the gamma filter”, Proc. ICASSP 94, vol 3, pp. 369-372, Adelaide.
- 59 Kuo J-M., Celebi S., Principe J., “Adaptation of memory depth in the gamma filter”, Proc ICASSP 94, vol 5, pp. 373-376, Adelaide.
- 58 Kuo J., Principe J., “Learning to generate a sinewave with a recurrent two neuron network”, Proc. WCNN 94, vol 4, pp. 403-407, San Diego, CA.

-
- 1993**
- 57 Kuo, J-M., Principe J., "Reconstructed dynamics and chaotic time series modelling", Proc. IEEE WCCI '94, vol 5, pp. 3131-3136, Orlando, FL.
 - 56 Principe J., Kuo J-M, "Noise reduction in state space using the focused gamma neural network", in Proc. SPIE Conf. on Chaos and Nonlinearities, vol 2038, pp. 326-331.
 - 55 Principe J., Kuo J-M, "Using the outputs of the poisson filter chain to reconstruct attractors", Proc. SPIE Conf. on Chaos and Nonlinearities, vol 2037, pp. 59-65.
 - 54 Gugel K., Principe J., Venkumahanti, "Analysis of coarse parallel architectures for artificial neural processing", Proc. World Congress on Artificial Neural Networks, vol IV, pp. 787-790.
 - 53 Principe J., Tracey J., "Isolated word recognition using the focused gamma neural network", Proc. World Conference on Neural Networks, vol III, pp. 87-100.
 - 52 Lefebvre C., Principe J., "Object-oriented artificial neural network implementations", Proc. World Conference on Neural Networks, vol IV, pp. 436-439.
 - 51 Gugel K., Principe J., Venkumahanti S., "Analysis of coarse parallel architectures for artificial neural processing", Proc 3rd Workshop on Neural Networks for Signal Process, pp. 450-459, Maryland.
 - 50 Principe J., Kuo J-M, "Backpropagation through time with fixed memory size constraints", Proc. 3rd Workshop on Neural Networks for Signal Process, pp. 207-215, Maryland.
- 1992**
- 49 Principe, J., deVries B., "Short term neural memories for time varying signal classification", in Proc. 26th ASILOMAR Conf., pp. 766-770, Pacific Grove.
 - 48 Kuo J-M, Principe J., deVries B., "Prediction of chaotic time series using recurrent neural networks", in Proc. 1992 IEEE Workshop of N. N. in Sig. Proc., pp. 436-443.
 - 47 Tomas A., Oliveira P., Principe J., deVries B., "Generalized feed forward filters with complex poles", in Proc. 1992 IEEE Workshop of N. N. in Sig. Proc., pp. 503-510.

1991

- 46 Principe J., deVries B., Guedes de Oliveira P., "Generalized feed-forward structures: a new class of adaptive filters", in Proc. ICASSP 92, vol IV, pp. 244-248, San Francisco, CA.
- 45 Barreto A., Principe J., Reid S., "Spatio-temporal localization and display of focal epileptic activity from the electrocorticogram", IEEE/EMBS Conference, Orlando, FL, pp. 435-436.
- 44 Principe J., Lo P.-C., "Estimation of Lyapunov exponents from the EEG", IEEE/EMBS Conference, Orlando, FL, pp. 2230-2231.
- 43 Hsu H.-H., Principe J., "Visualization of epileptic spikes in state space", IEEE/EMBS Conference, Orlando, FL, pp. 1191-1192.
- 42 deVries B., Principe J., Guedes de Oliveira P., "Adaline with adaptive recursive memory", Proc. IEEE Workshop on Neural Networks in Signal Proc., pp. 101-110,
- 41 Principe J.C., T. Yoon, R Walters, "A numeric-symbolic approach to tool breakage detection", Proc. NSF Grantees Conference, pp. 399-402, Atlanta, GA.
- 40 Rambo K., Fox R., Eisenstadt W., Langford D., Principe J., Pal-ovcik R., "VLSI silicon based prosthesis for in vitro measurement of neural activity", in Proc. IEEE/Custom Integrated Circuits Conf., San Diego, CA, pp. 27.7.1-27.7.4.

- 39 Brenner D., Principe J., Doty K., "Neural network classification of metal surface properties using the dynamica touch sensor", in Proc. IJCNN'91, Seattle, pp. I-189-194.
- 38 Davis T., Principe J., "A simulated annealing like convergence theory for the simple genetic algorithm", in Proc. 5th Conf. on Genetic Algorithms, San Diego, CA, pp. 174-181.

1990

- 37 Barreto, A., Principe J., Reid S., "Multidimensional filtering of the ECoG for epileptic focus localization", in Proc. SoutheastConf90, Williamsburg, VA, pp. 1116-1120.
- 36 Principe J., Adkins, A., Gugel K., Eatemadi S., "Multirate sam-pling digital audio equalizer", in Proc. Southeast Conf '90, Williamsburg, VA, Williamsburg, VA, pp. 499-502.
- 35 Richards J., Webster M., Principe J., "A gradient-based variable step-size LMS algorithm", in Proc. Southeast Conf '90, Williamsburg, VA, pp. 1083-1087.

1989

-
- 34 Principe J., Reid S., "Analysis and visualization of the EEG in phase space", Proc. IEEE EMBS, pp. 1404-1405, Philadelphia, PA.
 - 33 Principe J., Park S., "An expert system architecture for abnormal EEG discrimination", Proc. IEEE EMBS, pp. 1376-1377, Philadelphia, PA.
 - 32 deVries A., Principe, J., "A new neural network model for tempo-ral processing", Proc. IEEE EMBS, pp. 1439-1440, Philadelphia, PA.
 - 31 Principe J.C., Yoon T., "Knowledge representation in machine tool supervision systems", Proc. 5th IEEE Int. Symp. on Intel. Control, pp. 1106-1109, Philadelphia, PA.
 - 30 Konger C., Principe J.C., "Neural network classification of event related potentials for the development of a new computer interface", Proc. IJCNN'90, San Diego, CA, vol II, pp. 407-411.
 - 29 Principe J.C., Lo P.C., "Chaotic dynamics of time-delay neural networks", Proc. IJCNN'90, vol I, pp. 367- 372, San Diego, CA.
 - 28 Brenner D., Doty K.L., Moallem M., Ragner G., Principe J. C., "Development of a neural network based dynamic touch sensory system", Proc. Sensors Expo West, Long Beach, CA, pp. 301A1-10.
 - 27 Principe J.C., YU F.S., Reid S.A., "Display of EEG chaotic dynamics", in Proc. 1st Conf. Visualization Biomed. Computing, Atlanta, GA, pp. 346-351.
 - 26 Principe J.C., Yoon T., "A numeric Symbolic approach to machine tool supervision" in Proc. Sensors Expo West, Long Beach, CA, pp. 301B1-8.
 - 25 Lo P-C.,Principe J.C., "The effect of filtering in the EEG correlation dimension estimation: experimental results", in Proc. IEEE Eng. Med. Biol. Soc., pp. 638-639, Seattle, WA.
 - 24 Yu, F-S, Principe J.C., Reid S., "Display of EEG chaotic dynamics", in Proc. IEEE Eng. Med. Biol. Soc., pp. 1928-1929, Seattle, WA.
 - 23 Principe J.C., Chang T., Gala S., Tome A., "Information processing models for automatic sleep scoring", in Proc. IEEE Eng. Med. Biol. Soc., pp. 1804-1805, Seattle, WA.

-
- 22 Walters R., Principe J.C., "Spike detection using a syntactic pattern recognition approach", in Proc. IEEE Eng. Med. Biol. Soc., pp. 1810-1811, Seattle, WA.
- 21 Principe J.C., Tome A.M., "Performance and training strategies in feedforward neural networks: an application to sleep staging" Proc. ICNNS'89, vol I, pp. 341-346.
- 20 Lo, P-C, Principe, J.C., "Dimensionality analysis of EEG segments: experimental considerations", Proc. ICNNS'89, vol I, pp. 693-698.
- 19 Yoon T., Principe J.C., "A knowledge-based supervision model for machine tools", in Proc. 13th COMPSAC'89, pp. 779-780, Orlando, FL.
- 18 Yoon T., Principe J.C., "A new algorithm for tool breakage detection using the displacement signal", in Proc. PROCIEM'89, pp. 37-41, Orlando, FL.
- 17 Ting Y.T., Childers D.G., Principe J.C., "Tracking spectral resonances", in 4th Annual ASSP Workshop on Spectrum Estimation, Minnesota, pp. 49-54.
- 1988**
- 16 Chang T.G., Smith J.R., Principe J.C., "A layered model for the knowledge-based contextual interpretation of multi-channel EEG/EOG Signals", Proc IEEE Southeastcon 88, pp. 239-243.
- 15 Principe J.C., Gala S.K., Chang T.G., "Sleep staging automaton based on the theory of evidence", in Proc. 9th Annual Conf. IEEE Eng. Med. Biol. Soc., pp. 2064-2066, Boston, MA.
- 1987**
- 14 Vaz, F, Principe, J.C., "Automated classification of epileptic seizures in the electroencephalogram", Int. Conf. Dig. Signal. Proc., Florence, Italy, pp. 564-567.
- 1985**
- 13 Dunoes P.,Principe J.C., Isaias A.,Neiva R., Vaz F., "EEG Power Spectrum Estimation Using Walsh Transforms: A Comparative Study", Proc. of MELECON, pp. 142-146, Madrid, Spain.
- 12 Vaz F., Principe J.C., Abrantes A., Paiva J., "A Microcomputer Based Power Spectrum Estimator for EEG Analysis", Proc. of MELECON, pp. 123-126, Madrid, Spain.
- 11 Principe J.C., Guedes de Oliveira P.,daSilva A.,Vaz F., Tome A., "Computer Analysis of EEG Waveforms", Proc. of 32nd International
- 1984**

-
- Congress of Aviation and Space Medicine, pp. 208-210, Funchal, Portugal.
- 10 Principe J.C., Guedes de Oliveira P., Neiva R., "Multitasking Organization for Real Time Comparison of Different EEG Processing Algorithms", Proc. Marrocan Workshop on Signal Proc. and Applications (MWSPA), B-2, pp. 3.1-3.6.
- 9 Vaz F., Guedes de Oliveira P., Principe J.C., Cruz A., Tome A., "Spike Detection in EEG Using Autoregressive Models and Pattern Recognition", in Proc. MWSPA, pp. B2-1.1-1.7.
- 8 Guedes de Oliveira P., Alves J., Principe J.C., "Multi- microprocessor Environments for Real Time Communication and Signal Processing", in Proc. MWSPA, B-3, pp. 2.1-2.8.
- 7 Guedes de Oliveira P., Principe J.C., Cruz A., Tome A., "Multiprocessor Electroencephalogram (EEG) Analyzer", in Proc. IEEE Frontiers of Engineering and Health Care, USA, pp. 231-234.
- 1983
- 6 Principe J.C., "Design of Linear Phase Filters for Microcomputer Implementation", in Proc. of Portuguese Workshop on Signal Proc. and Applications (PWSPA), Porto, Portugal, A2, pp. 3.1-3.8.
- 1982
- 5 Principe J.C., Guedes de Oliveira P., "An Architecture of Distribut-ed Processing System for Real Time EEG Analysis", in Proc. of PWSPA, Porto, Portugal, C2, pp. 1.1-1.7.
- 4 Vaz F., Principe J.C., Guedes de Oliveira P., "Power Spectrum Esti-mation in EEG Analysis", in Proc. of PWSPA, Porto, Portugal, B8, pp. 2.1-2.7.
- 3 Tome A., Principe J.C., "A Microcomputer Implementation of a Digital Frequency Synthesizer", in Proc. of PWSPA, Porto, Portugal, C1, pp. 3.1-3.8.
- 2 Vaz F., Principe J.C., "Computer Graphic Display of EEG Spectral Resonances", in Proc. of IEEE Southeastern Conference, Destin, USA, pp. 559-560.
- 1 Principe J.C., Smith J.R., Paige A., "Microcomputer Based Digital Filters For EEG Processing", in Proc. IEEE Southeastern Conference, Atlanta, Georgia, pp. 24-28.
- 1978

***TALKS AND ABSTRACTS PRESENTED AT
TECHNICAL SYMPOSIA***

Stopped counting the presentations.

1994

45. Barreto A., Principe J., Reid S., Gilmore R., "An on-line system for intraoperative focus localization from array electrocorticography", 5th Int. Cleveland Clinic Epilepsy Symposium, Cleveland, OH.
44. Radisavljevic A., Kuo J.-M., Fisher J., Principe J., "Gamma functions for feature extraction in automatic target recognition", submitted Joint Automatic Target Recognizer and Technology Conf., Monterey, CA.
43. Fisher J., Principe J., "Performance comparison of the MACE filter and a nonlinear extension", submitted Joint Automatic Target Recognizer and Technology Conf., Monterey, CA.
42. Vaz F., Principe J., Zahalka A., "Automatic EEG spike detection using neural networks", V Int. Symp. Biomed Eng., Santiago Compostela, Spain, 1994.
41. Barreto A., Principe J., Reid S., "An on-line system for intraoperative focus localization from array electrocorticography", IEEE Southeastcon 94.
40. Barreto A., Principe J., Reid S., "Intraoperative focus localization based on spatio-temporal ECoG analysis, Proc. IEEE Eng in Medicine and Biology Soc., vol 15, pp. 344-345, San Diego, CA.
39. Sajan I., van Meurs W., Lampotang S., Good M., Principe J., "Computer controlled mechanical lung for an anesthesia simulator", 1994 Annual Meeting of Anesthesia Society, Orlando, FL.
38. Reid S., R. Palovcik, Principe J., "Computer animation of electrophysiological responses", accept to 1990 Annual Meeting of Society of Neuroscience, St. Louis, MO.

1990

37. Palovcik, R., Reid S., Principe J., "A 40 Hz rhythm in isolated human cortical slices from epileptics", accept to 1990 Annual Meeting of Society of Neuroscience, St. Louis, MO.
36. Choi H., Principe J., "A methodology to compare smoothing algorithms for EEG signal processing", 9th Southern Biomed. Eng. Conf., Miami, FL.

1988
1987

35. Lo P., Principe J., "Analysis of filter characteristics using the Wigner distribution", 9th Southern Biomed. Eng. Conf., Miami, FL.
34. deVries A., Principe J., "Neural network models for temporal processing", 9th Southern biomed. Eng. Conf., Miami, FL.
33. Eatemadi S., Principe J., "Cortical mouse: a new way to interface with the computer", 9th Southern Biomed. Eng. Conf., Miami, FL.
32. Principe J., Choi H., "The display of biological signals as a multi-rate sampling problem", 9th Southern Biomed. Eng. Conf., Miami, FL.
31. Reid S.A., Yu F.S., Principe J.C., "State space display of EEG chaotic dynamics", in *Electroenceph. Clin. Neurophysiol.*, 75:s124.
30. Hammond E.J., Uthman B.M., Reid S.A., Wilder B.J., Principe J.C., "Chronic vagus nerve stimulation for epilepsy: physiological aspects", in *Electroenceph. Clin. Neurophysiol.*, 75:s56.
29. Cunha M., Ferreira J., Oliveira P., Principe J., "Interactive system for on-line management of clinical data", Proc. V Mediterranean Conf. on Medical and Biol. Eng., Patras, Greece.
28. Kim, C.,Principe, J.C., Smith J.R., "SEGER: A natural language interface to a sleep EEG/EOG database", ISMM International Conference, Miami Beach, Florida.
27. Cunha M., Oliveira P., Principe J., "Gravacao simultanea em video de imagam e sinal digital EEG (DORIS)", in BioEng'88, Porto, Portugal.
26. Silva A., Oliveira P., Vaz F., Principe J., "Utilidade de sistemas automaticos na monitorizacao da epilepsia", in Bio Eng'88, Porto, Portugal.
25. Oliveira P., Principe J., Cruz J., "A distributed processing architecture for real-time biological data analysis", in Proc. Cutting Edge Technologies and Microcomputer Applications Conf., pp. 221-226, Westview Press.
24. Vaz, F., Principe J.C., "Caracterizacao parametrica do EEG", Congresso Brasileiro de Engenharia Biomedica, Rio de Janeiro, Brazil.
23. Oliveira P., Silva A., Principe J., Vaz F., "Event oriented analysis of the EEG: time dependence and topographic relations", Proc. IEEE 9th BME Conf., Boston, MA.

-
- 1986**
- 22. Tang Z-W, Kim C.T., Principe J.C., Smith J.R., "Microanalysis of Electroencephalographic Data During Sleep", 1st Annual Meeting Association of Professional Sleep Societies, Columbus, Ohio.
- 1985**
- 21. Yu F.S., Principe J.C., Smith J.R., "Automated Respiration Monitoring", 1st Annual Meeting Association of Professional Sleep Societies, Columbus, Ohio.
 - 20. Tome A., Silva A., Cruz A., Oliveira P., Principe J., Vaz F., Canijo M., "parametrizacao do EEG em clinica: analise com microprocessadores", 2nd Luso-Spanish Meeting of Neurology, Salamanca, Spain.
 - 19. Principe J. C., "Automated Systems in Sleep Studies", in Session C3-EEG Processing II, 7th Annual Conference of the IEEE Engineering in Medicine and Biology Society, Chicago, Illinois.
- 1984**
- 18. Vaz F., Oliveira P., Principe J., "Best order variability of autoregressive EEG modelling", XI Int. Cong. Electro. Clin. Neuroph., Sept, London, England.
 - 17. Da Silva A., Canijo M., Principe J. C., Guedes de Oliveira P., Coutinho P., Lopes Lima J., Alves D., "EEG Monitoring of Epileptic Patients", 1st Jornadas Neurofisiologia Clinica, Lisbon, Portugal.
 - 16. Principe J.C., Guedes de Oliveira P., da Silva A., Vaz F.C., Tome A., Cruz A., "Automated Methods in EEG Processing", 1st Jornadas Neurofisiologia Clinica, Lisbon, Portugal.
 - 15. Guedes de Oliveira P., Principe J.C., Cruz A., Tome A., "Integrat-ed System for the Computer Analysis of EEG", 1st Jornadas Neurofisiologia Clinica, Lisbon, Portugal.
- 1983**
- 14. Principe J. C., Smith J. R., "SAMICOS, A Sleep Analyzing Micro Computer System", (Abs) Proc. 4th International Association for Physiological Study of Sleep, pp. 208, Bologna, Italy.
 - 13. Principe J.C., Guedes de Oliveira P., Vaz F.C., Estima de Oliveira J., Tome A., Cruz A., "Biomedical Research Program in the EE Dept. of University of Aveiro", ENDIEL, Lisbon, Portugal.
 - 12. Principe J.C., Smith J.R., "Alpha Spindle Characteristics in Epileptic Patients", (Abs) 10th International Conference Electroencephalography and Clinical Neurophysiology (ICECN), Kyoto, Japan, Published in Electroenceph. Clin. Neurophysiol., vol
-

1980

- 52-3, S120.
11. Principe J. C., Smith J.R., Wilder B.J., "Automated Detection and Quantification of Petit Mal Epilepsia", (Abs) 10th ICECN, Kyoto, Japan, Published in *Electroenceph. Clin. Neurophysiol.*, vol 52-3, S120.
 - 10 Guedes de Oliveira P., Principe J.C., "Computerized EEG Analysis", Reuniao Trabalho sobre EEG, Centro Estudos Egas Moniz, Lisbon, Portugal.
 9. Principe J.C., "Power Spectrum Estimation", Seminar EE Department, University of Florida, Gainesville, Florida.
 8. Bergstrom G., Principe J.C., Smith J.R., "Microcomputer Based Respiration Monitor for the Detection of Sleep Apnea", (Abs) Proc. of the 3rd Meeting Association for the Physiological Study of Sleep (APSS), Mexico City, Mexico, pp. 191.
 7. Johnson A.S., Smith J.R., Principe J.C., "A 10 Hz Sinewave EEG Amplitude Calibrator", (Abs) in Proc. 3rd APSS Meeting, Mexico City, Mexico, pp. 189.

6. Principe J.C., Smith J.R., "A Microcomputer Based System for the Detection and Quantification of Sleep Spindles", (Abs) in Proceedings 3rd APSS Meeting, Mexico City, Mexico, pp. 190.
5. Principe J. C., "Digital Filters", Seminar, EE Dept. University of Florida, Gainesville, Florida.

1979

4. Principe J.C., "Digital Signal Processing", invited Speaker, Proc.of the Conference Association for the Advancement of Medical Instrumentation (AAMI), Las Vegas, Nevada.

3. Principe J.C., Smith J.R., "Programming a 16 bit Microcomputer for Real Time Filtering", (Abs) Proc. AAMI Conference, Las Vegas, Nevada, pp. 206.

2. Principe J.C., Smith J.R., Paige A., "Digital Filters in Real time EEG Processing", (Abs) Proceedings 31st Annual Conference of Engineering in Medicine and Biology Society (ACEMB), Atlanta, Georgia, pp. 1.4.

1978

1. Johnson A.S., Principe J.C., Smith J.R., "Automated Detection of Petit Mal Seizures in The Human EEG", in Proc. 31st ACEMB Conference, Atlanta, Georgia, pp. 1.6.

SEMINARS, TUTORIALS and INVITED LECTURES

- 170 *A Cognitive Architecture for Object Recognition in Video*, Plenary Speaker, UKCI 2016, Lancaster, UK, September, 2016.
- 169 *Toward Cognitive Integration of Prosthetic Devices*, Distinguished Seminar Speaker, School of Computing and Communications, Lancaster University, UK, September 2016.
- 168 *An Unsupervised Decoding Framework for Prosthesis*, Neuro Rehabilitation Summer School, Plenary Talk, Baiona, Spain, June 2016
- 167 *An Introduction to Brain Machine Interfaces*, IEEE EMB Turkey Student Conf., Plenary Talk, Istanbul, Turkey, May 2016
- 166 *A Point Process Model for EEG Quantification*, Minnesota Neuro Modulation Symposium, Plenary Talk, Minneapolis, April 2016.
- 165 *Are Cognitive Architectures Useful for Power System Applications?* Keynote Speaker, ISAP - Intelligent System Applications to Power Systems, Porto, Portugal, September 2015
- 164 *Towards Ultra-Low Power Pulse Based Signal Processing*, Keynote Speaker EUROMICRO, Funchal, Portugal, August 2015
- 163 *Quantifying Space-Time Structure with Dynamical Systems*, Keynote Speaker, DSP 2015, Singapore, July 2015.
- 162 *Information Theoretic Learning: From Physics to Non-parametric Statistical Estimators*, Invited Lecture, U. of Lancaster, July 2015.
- 161 *Knowledge, Workforce and Infrastructure for Innovation: A US Perspective*, Invited Lecture at Gestao do Conhecimento e Inovacao, Organized by Agencia Nactional de Inovacao, Lisbon, Portugal, June 2015.
- 160 *Tensor Product Kernels for Multi-scale Control of Somatosensory Stimulation*, Plenary Speaker, DEMOVE Workshop, U. of Göttingen, Germany, June 2015.
- 159 *Tensor Product Kernels for Multiscale Neural Decoding and Control*, Neurotechnology Workshop, National Technological University, Singapore, March 2015.
- 158 *Ultra Low Power Signal Processing Using Time Based Computation*, Institute for Micro Electronics, A*, Singapore, March 2015.
-

-
- 157 *A Cognitive Architecture for Object Recognition in Video*, Seminar at the Institute for Infocom Research, A*, Singapore, February 2015
- 156 *Quantifying Cognitive State from EEG using Dependence Measures*, Workshop on Machine Learning and Biomedical Applications, National Technological University, Singapore, 2015.
- 155 *Convex Universal Learning Machines*, Keynote Speaker, ELM 2015, Singapore, December 2014.
- 154 *A Cognitive Architecture for Object Recognition in Video*, Keynote Speaker Complex Adaptive Systems Conference, Philadelphia, November 2014.
- 153 *Can we Achieve Batteryless Physiologic Monitoring?* In CONNECTED HEALTH: Bridging the Gap Between Innovation and Practice – Champions & Partnerships, UK Trade & Investment, Lisbon 2014
- 152 *Toward Cognitive Integration of Prosthetic Devices*, Graduate Program Seminar, FEUP, Oct 2014.
- 151 *A Cognitive Architecture for Object Recognition in Video*, INESC TEC Seminar, July 2014.
- 150 *A Cognitive Architecture for Object Recognition in Video*, Int. Symposium on Neuromorphic Systems and Cyborg Intelligence, Beijing, China, July 2014.
- 149 *An Introduction to Brain Machine Interfaces*, IEEE CIS Summer School, Key Laboratory of Automation, Beijing, China, July 2014.
- 148 *Toward Cognitive Integration of Prosthetic Devices*, IEEE WCCI Plenary Lecture, Beijing, China, July 2014.
- 147 *A Cognitive Architecture for Object Recognition in Video*, Cognitive Information Processing Conference, Copenhagen, Denmark, May 2014.
- 146 *Kernel Adaptive Filters for Online Prediction of Time Series*, Jump Trading, Chicago, Il, May 2014.
- 145 *Non-Numeric Time Based Computation*, Neuro-Inspired Computational Elements Workshop, Sandia National Labs, Feb 2014.

-
- 144 *Non-Numeric Signal Processing for Physiology Monitoring*, IEEE BIBE, Crete, Greece, Nov 2013.
- 143 *Non-Numeric Signal Processing for Physiology Monitoring*, IFMBE Workshop on Health Informatics, Vila Moura, Portugal, Nov 2013.
- 142 *A Tensor Product Kernel For Multi-Scale Sensorimotor Stimulation*, IEEE NeuroEngineering Workshop, San Diego, Nov 2013.
- 141 *A Cognitive Architecture for Object Recognition in Video*, Hughes Research Laboratories, Malibu, CA, Nov 2013.
- 140 *Non-Numeric Signal Processing for Physiology Monitoring*, Qualcomm, Santa Clara CA, Nov 2013.
- 139 *Estimating Entropy and Mutual Information in Reproducing Kernel Hilbert Spaces*, NATO Workshop on Robustness and Vulnerability of Critical Infrastructure Networks, Kiev, Ukraine, June 2013.
- 138 *Advanced in Kernel Adaptive Filtering*, Keynote at IEEE CCIS, Singapore, April 2013.
- 137 *Somatosensory Brain Machine Interfaces*, IEEE CIS Distinguished Lecture at University of Science and Technology of China, March 2013.
- 136 *Information Theoretic Signal Processing*, IEEE CIS Distinguished Lecture at University of Science and Technology of China, March 2013.
- 135 *From Thought to Action*, Workshop at the UiTM Shah Alam, Kuala Lumpur Malaysia. March 2013.
- 134 *How to write IEEE Transaction Papers*, IEEE EMBS Distinguished Lecture at the UiTM Shah Alam, Kuala Lumpur Malaysia. March 2013.
- 133 *Somatosensory Brain Machine Interfaces*, IEEE EMBS Distinguished Lecture at the UiTM Shah Alam, Kuala Lumpur Malaysia. March 2013.
- 132 *The SOM and its Family*, Keynote at the 9th Int. Workshop WSOM 2012, Santiago, Chile, December 2012.

-
- 131 *Self-Organizing Computational Perception in Space-Time*, Keynote at the 13th Int. Soc. For Music Retrieval, Porto, Portugal, October 2012.
- 130 *Neural Signal Processing*, Invited Lecture Instituto do Cerebro, Natal, Aug 2012.
- 129 *Online Kernel Learning*, Keynote Lecture in IDEAL 2012, Natal, Brasil, Aug 2012.
- 128 *Online Kernel Learning*, IEEE CIS Distinguished Lecture Series at the Nanyang Technological University, Singapore, August 2012.
- 127 *Somatosensory Brain Machine Interfaces*, IEEE EMBS Distinguished Lecture at the National University of Singapore, August 2012.
- 126 *Design of Cognitive Memory Systems*, Invited talk, Xi'an Jiaotong U., Xi'an China, August 2012.
- 125 *Online Kernel Learning for System Identification*, Keynote at the 10th IFAC CONTROLO Conf. July 2012 Funchal, Madeira.
- 124 *Somatosensory Brain Machine Interfaces*, Plenary lecture, 3rd US-Turkey Advanced Study Institute on Global Healthcare Challenges, July 9-15, 2012, Antalya, Turkey.
- 123 *Online Kernel Learning*, Tutorial at the Neural network Summer School NN 2012, U. do Porto, Portugal, July 2012.
- 122 *Somatosensory Brain Machine Interfaces*, Plenary lecture, StudECE 2012, June 28-29, U. of Porto, Portugal.
- 121 *Online Kernel Learning*, Tutorial at the 4th Porto Meeting on Mathematics for Industry, Faculdade Ciencias U. do Porto, Portugal (3 lectures), June 2012.
- 120 *Measures of Statistical Dependence*, Plenary Lecture, ICAISC 2012, Zakopane, Poland, June 2012
- 119 *Information Theoretic Learning*, invited speaker, Sensor Information Estimation and Exploitation Workshop, Ann Harbor, Michigan, 2012
- 118 *Advances in Brain Machine Interfaces*, Plenary Speaker, BIOSTEC 2012, Algarve, Portugal 2012.

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- 117 *Measures of Statistical Dependence*, Plenary Lecture, ICPRAM 2012, Algarve, Portugal, 2012
- 116 *Towards Somatosensory BMIs*, Plenary lecture, IEEE-EMBS International Conference on Biomedical and Health Informatics, Shenzhen, 2012
- 115 *Machine Learning for Signal Processing*, Plenary Lecture, 46th Annual Asilomar Conference on Signals, Systems, and Computers, Nov 2011.
- 114 *Dependence Analysis for Cognitive EEG Analysis*, Invited Seminar BME Dept., Tsinghua U., Beijing, China, Sept 15, 2011.
- 113 *Online Kernel Learning*, Tutorial at the National Laboratory for Pattern Recognition, Beijing, China, Sept 14, 2011.
- 112 *Information Theoretic Learning*, Tutorial at the National Laboratory for Pattern Recognition, Beijing, China, Sept 13, 2011.
- 111 *Information Theoretic Learning*, Tutorial at the 8th IEEE-EMBS International Summer School on Biomedical Signal Processing, Certosa di Pontignano (Siena), Italy, 26th June - 3rd July, 2011.
- 110 *Toward Symbiotic Brain Machine Interfaces*, Tutorial at the 8th IEEE-EMBS International Summer School on Biomedical Signal Processing, Certosa di Pontignano (Siena), Italy, 26th June - 3rd July, 2011.
- 109 *Kernel Adaptive Filtering*, Tutorial at the IEEE Int. Conf. Acoustic Speech and Signal Proc., Prague, Czech Republic, May 2011.
- 108 *Adaptive Information Filtering*, Seminar, Mechanical Eng. Dept., U. of Texas at Austin, April 2011.
- 107 *Cognitive Neural Prosthesis*, Invited Talk at "International Workshop on Frontier of Neural Engineering" Hangzhou, China, April 2011.
- 106 *The Integrate and Fire Converter for Biomedical Applications*, Invited Talk, Chinese U. of Hong-Kong, March 2011.
- 105 *An Unifying Perspective for Unsupervised Learning: The Principle of Relevant Information*, Keynote at the World Congress Computational Intelligence (WCCI), Barcelona, Spain, July 2010.

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- 104 *Nonlinear Adaptive Systems with Convex Optimization*, tutorial at the Dept Electrical Eng. University of Porto, Portugal, July 2010.
- 103 *Architectures and Algorithms for Brain Machine Interfaces*, Invited talk at the IEEE EMBS Forum on Grand Challenges In NeuroEngineering, Washington, May 2010.
- 102 *Kernel Adaptive Filtering*, Plenary Talk at the Summer School on Computational Intelligence, University of Santiago, Chile, December 2009.
- 101 *The Principle of Relevant Information*, Plenary Talk at the Summer School on Computational Intelligence, University of Santiago, Chile, December 2009.
- 100 *Kernel Adaptive Filtering*, Keynote Speaker at the 15th International Conference on Intelligent System Applications to Power Systems, Curitiba Brazil, November 2009
- 99 *Towards Cognitive Neural Prostheses*, Theme Keynote Speaker, 31st Annual International Conference of the IEEE EMB Society, Minneapolis, August 2009.
- 99 *Unsupervised Learning: the Principle of Relevant Information*, Keynote at VIPIMAGE 2009, Portugal, September 2009.
- 98 *Perception as Self-Organization in Space Time*, Keynote lecture, 6th Sound and Music Conference, Porto, Portugal, July 2009.
- 97 *Information Theoretic Learning: where we are and where to go next*, Invited seminar, U. of Porto, Portugal, July 2009.
- 96 *Mathematical Modeling in the Design of Brain Machine Interfaces*, Invited Seminar, Mathematics Dept., U. of Minho, Portugal, June 2009.
- 95 *Brain Machine Interface Engineering*, Invited lecture, Jiaotong University, Xi'an, PR China, June 2009.
- 94 *Information Theoretic Signal Processing and Machine Learning*, Invited lecture, Jiaotong University, Xi'an, PR China, June 2009.
- 93 *Information Theoretic Signal Processing and Machine Learning*, Plenary talk, International Symposium Neural Networks, Wuhan, PR China, June 2009.

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- 92 *From Linear Adaptive Filtering to InformationTheoretic Estimation and Filtering*, Keynote address, Lawrence Livermore National Laboratory, Livermore, Ca, November 2008.
- 91 *Co-Adaptive Brain Machine Interfaces*, Invited Seminar, Fundacao Champalimaud, Oeiras, Portugal, October 2008.
- 90 *Brain Machine Interface Engineering*, three lectures at the 7th Biocomplexity Summer School, Bugazici University, Istanbul Turkey, 2008.
- 89 *Co-Adaptive Brain Machine Interfaces*, Plenary Lecture in Brain Inspired Cognitive Systems (BICS) 2008, S. Luis Maranhao, Brazil, 2008
- 88 *The Central Role of PDF Moments in Advanced Adaptive Filtering and Information Theories*, Seminar at the Dept of Mathematics, U. of Porto, Portugal, July 2008.
- 87 *The Central Role of PDF Moments in Advanced Adaptive Filtering and Information Theories*, Invited Speaker, Cognitive Information Processing Conference, Santorini, June 2008.
- 86 *On-Line Kernel Learning*, Invited Speaker, Information Science and Technology Conference, Center for Nonlinear Studies, Los Alamos National Laboratory, May 2008.
- 85 *Brain Machine Interfaces as a Testbed For Computational Modeling*, Invited Speaker, Principles of Biocomputing Conference, Los Alamos National Laboratory, May 2008.
- 84 *Paradigm Shift for BMIs, Foundations of Neurally Enabled Human Machine Interfaces*, DARPA-DSO, April 2008.
- 83 *Challenges in the Engineering Design of Brain Machine Interface*, Invited Seminar, Institute for InfoComm Research, Singapore, March 2008.
- 82 *Correntropy Based MACE Filters for Face Recognition*, Invited Talk, National University of Singapore, March 2008.
- 81 *Engineering the Brain Machine Interface*, Distinguished Lecture Series, College of Engineering, U. of Texas, Dallas, November 2007.
- 80 *Reproducing Kernel Hilbert Spaces for Optimal Data Analysis*, Plenary Lecture, ICANN 07, Porto, Portugal, September 2007

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- 79 *Machine Learning using Kernels and Information Theoretic Learning*, Plenary Lecture, Int. Joint. Conf. Neural Networks, Orlando, Aug, 2007.
- 78 *Advances in Spike Train Modeling and Analysis*, keynote Lecture, 15th Int. Conf. on Digital Signal Processing, Cardiff, UK, July 2007.
- 77 *Signal Processing for Brain Machine Interfaces*, Computational NeuroScience Workshop, Instituto Gulbenkian de Ciencia, Oeiras, Portugal, June 2007.
- 76 *Information Filtering*, Seminar at Faculdade Eng. University of Porto, Portugal, June 2007.
- 75 *Machine Learning using Kernels and Information Theoretic Learning*, Seminar, U. of Santander, Spain, June 2007.
- 74 *Biomedical Signal Analysis*, Biomedical Signal Processing, Summer School (10 lectures), Zaragoza, Spain, June 2007.
- 73 *Brain Machine Interfaces as the New Frontier of NeuroEngineering*, Invited Lecture at the 5th Int. Symposium on Emerging Technologies in Biomedicine, Antalya, Turkey June 2007.
- 72 *Advances in Epilepsy Modeling*, Keynote Speaker, XXX Annual Congress of the Italian League Against Epilepsy, Reggio Calabria, Italy, May 2007
- 71 *Machine Learning for Brain Machine Interfaces*, Seminar, Institute of Physics, U. of Tromso, Norway, May 2007.
- 70 *Brain Machine Interfaces: Data Modeling Methodologies*, Spring School for Modelling, Automation and Control of Physiological Variables, U. of Porto, Portugal, May 2007.
- 69 *Computational Intelligence Methods in Engineering*, Two, one hour lectures at the Summer School, U. of Santiago, Chile, December 2006.
- 68 *Brain Machine Interfaces*, Distinguished Lecture, Michigan State University, November 2006.
- 67 *Optimal Signal Processing using Kernels and Information Theoretic Learning*, ARRI Distinguished Lecturer, U. of Texas Arlington, November 2006.

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- 66 *Optimal Signal Processing using Kernels and Information Theoretic Learning*, Plenary Talk, VIII CBRN- Congresso brasileiro de Redes Neurais, Ribeirao Preto, Brazil, October 2006.
- 65 *Brain Machine Interfaces*, Invited Speaker, Carlos Abizou University, Miami, October, 2006.
- 64 *System Identification using Correntropy*, Plenary Talk, Control 2006, Lisbon, Portugal, September 2006.
- 63 *Signal Processing Challenges for Neural Information Processing*, Invited Talk, ONR Neural-Silicon Workshop, Portland, Oregon, August 2006.
- 62 *Information Theory Applied to Machine Learning*, Plenary Talk, VII CBRN- Congresso brasileiro de Redes Neurais, Natal, Brazil, October 2005.
- 61 *SOMs as a Representation Structure for Signal Processing and Controls*, Plenary Talk, WSOM 2005, Paris, France, Sept 2005.
- 60 *Brain Machine Interfaces*, Plenary Talk, ICCB 2005, Int. Conf. Computational Bioengineering, Lisbon, Portugal, Sept 2005.
- 59 *Dynamical Models for Information Processing*, Plenary Talk, Frontiers of Neural Engineering, Beijing, China, Sept 2005.
- 58 *Information Theoretical Learning and its Applications*, Set of four lectures on the Neural Network Summer School, Porto, Portugal, 2005.
- 57 *Nonlinear Dynamic Modeling for Brain Like Computation*, Plenary Speaker at Adaptive and Natural Computing Algorithms (ICANNGA) Workshop, Coimbra Portugal, 2005.
- 56 *Information Theoretical Learning and its Applications*, Keynote Speaker at the Learning'04, Elche, Spain, October 2004.
- 55 *Biological Plausible Information Processing Models*, Invited Lecture at the Brazilian Neural Network Congress, S. Luis do Maranhao, Brazil, October, 2004.
- 54 *Beyond Linear Gaussian and Stationary Time Series Modeling*, series of three talks at the International Summer School on Neural Nets held in Istituto Internazionale Alti Studi Scientifici " E. R Caianiello", in Vietri sur Mare, Italy, Sept 13-18, 2004.

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- 53 *Recent Advances in Information Theoretic Learning*, Invited Lecture at the Riken Brain Science Institute, Tokyo, May 2004.
 - 52 *Rethinking the Interface between Humans and Robots*, Invited Lecture at the Laboratory of Micro Systems and Control, Nagoya University, May 2004.
 - 51 *Recent Advances in Signal Processing Algorithms for Brain Machine Interfaces*, Keynote Speaker, 43ed Annual Conference of the Japanese Society for medical and Biological Engineering, May. 2004, Kanazawa, Japan, 2004.
 - 50 *Advanced Biosignal Analysis*, Lectures at the Master Course for the Innovation in Biomedical Engineering program at the University "Mediterranea" of Reggio Calabria, Italy, March 2004.
 - 49 *Optimal Signal Processing for Brain Machine Interfaces*, Keynote Speaker, Biomedical Engineering Annual Symposium, Dec. 2003, Taipei, Taiwan.
 - 48 *Recent Progress in Nonlinear Methods for Epileptic Seizure Prediction*, in the 3rd Meeting on Complexity, Arrabida, Portugal, July 2003.
 - 47 *Information Theoretic Learning*, Four Lectures in the Neural Network Summer School in Porto, Portugal, July 2003.
 - 46 *Optimal Adaptive Projections Using Stochastic and Recursive Algorithms*, Plenary Speaker, VI Brazilian Congress on Neural Networks, S. Paulo, Brazil, June 2003.
 - 45 *Estimating Information directly from samples using Renyi's entropy*, Keynote Speaker, ICONS'03, Faro, Portugal, April 2003.
 - 44 *Optimal Signal Processing for Brain Machine Interfaces*, Keynote Speaker, 1st IEEE Workshop on NeuroEngineering, Capri, Italy, March 2003.
 - 43 *Brain Machine Interfaces*, Invited Speaker, Arizona University State University, Phoenix, Feb. 2003.
 - 42 *Recent Advances in Information Theoretic Learning*, Keynote Speaker, ANNIE 2002, Nov 10-13, St Louis, Missouri, 2002.
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- 41 *A survey of Biomedical Engineering Research and Programs*, Keynote Speaker, Primeiro Encontro de Engenharia Biomedica, Universidade de Lisboa, Portugal, October 2002.
- 40 *Brain Machine Interfaces: Model building issues*, Keynote Speaker, The 4th International Workshop on Biosignal Interpretation, June 24-26th, 2002 Villa Olmo, Como, Italy.
- 39 *Information Theoretic Learning*, Invited Lecture, Copenhagen Workshop on Signal Processing, Bornholm, Denmark, April 2002.
- 38 *Adaptive Systems research at the CNEL*, Invited Talk, Computer Science Department, Florida State University, March 2002.
- 37 *Neural Networks for Signal Processing*, one day short course in the NATO Advanced Study Institute on Neural Networks, Crema, Italy, October 2001.
- 36 *Building a Silicon Cortex*, Invited Speaker, IEEE Biomedical Engineering Conference, Istanbul, Turkey, October, 2001.
- 35 *Optimal Nonlinear Filtering*, Tutorial in the International Joint Conference on Neural Networks, Washington DC, 2001.
- 34 *System Identification with Multiple Models*, Seminar at Nasa Langley, January 2001.
- 33 *Computational Models of Neural Assemblies*, Biomedical Engineering Seminar, University of Florida, 2000.
- 32 *Neural Networks for Time Series Analysis*, Aerospace Engineering Seminar, University of Florida, 2000.
- 31 *Dynamic Models of Information Processing*, ECE Brown Bag Seminar, University of Florida, 2000
- 30 *From Principal to Independent Component Analysis*, Invited Lecture, Biomedical Symposium, Houston, TX, 2000.
- 29 *Spatio Temporal Memories*, Invited Lecture, WSOM, Helsinki, Finland, 1999.
- 28 *Neural Networks for Financial Forecasting*, Tutorial, Cursos da Arrabida, Portugal, 1999.

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- 27 *Nonlinear Dynamic Modeling of Physiological Signals*, Tutorial, IEEE-EMBS Summer School, Siena, Italy, 1999.
 - 26 *Principles and Applications of Independent Component Analysis*, Tutorial, IEEE-EMBS Summer School, Siena, Italy, 1999.
 - 25 *Learning Nonlinear Dynamics with Artificial Neural Networks*, Tutorial, Cursos de Verano, El Escorial, Madrid, Spain, 1999.
 - 24 *Towards Information Filtering*, Key note speaker, IEEE Workshop on Neural networks for Signal Processing, Newton Institute, Cambridge, England, 1998.
 - 23 *Information Theoretic Learning*, U. Tecnica of Lisbon, Portugal, 1998.
 - 22 *Electronic Books and Distance Learning*, INESC-Porto, Portugal, 1988.
 - 21 *Temporal Processing with Neural Networks*, Tutorial, Sian Ka'an 97, Playa del Carmen, Mexico, 1997.
 - 20 *Dynamic Modeling with Neural Networks*, Invited Lecture, U. Tecnica of Lisbon, 1997.
 - 19 *Nonlinear Dynamical Modeling with Neural Networks*, Invited Speaker, ECSAP-97, Prague, Chec Republic, 1997.
 - 18 *Statistically Independent Feature Extraction*, Wright Patterson AirForce, 1997.
 - 17 *Neural Networks for Global and Local Modeling*, Yale University, 1996.
 - 16 *Neural Networks for System Identification*, Tutorial, Sian Ka'an Conf., Cancun Mexico, 1995.
 - 15 *Neural Networks for Automatic Target Recognition*, U. Tecnica of Lisbon, Portugal, 1995.
 - 14 *Neural Network Analysis of EEG*, 5th International Cleveland Clinic Epilepsy Symposium, Cleveland, Ohio, 1994.
 - 13 *Issues on Visualization of Biomedical Data*, 12th Annual Biomed. Conf., University of Houston, Texas, 1994.
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- 12 *Gamma Filters for Adaptive Echo Cancelling*, Motorola, Plantation, 1993.
 - 11 *Neural Networks: the next generation*, Center for Neuropsychological studies, University of Florida, March 1993.
 - 10 *Expert Systems in EEG Analysis*, University of Coruna, Spain, June 1992.
 - 9 *Artificial Neural Networks in Signal Processing*, University of Coruna, Spain, June 1992.
 - 8 *Time varying signal processing with neural networks*, Colloquium on Learning and Memory, U. of Porto, Portugal, 1992 (with W. Freeman and Lopes da Silva).
 - 7 *Collection, Visualization and Analysis of Spatio-Temporal Biological Field Potentials*, ONR sponsored meeting, Center for Complex Systems, Florida Atlantic University, 1992.
 - 6 *Nonlinear Prediction with Neural Networks*, SuperComputer Research Institute, Tallahassee, May 1992.
 - 5 *Short term memory mechanisms for neural networks*, David Sarnoff Research Center, October 1991.
 - 4 *Models and Applications of NeuroInformation Processing*, Neuroscience seminar, Dept. of Neurology, U. of Florida, 1991.
 - 3 *Reverse Engineering Biological Neural Networks*, Center for Complex Systems, FAU, May 1991.
 - 2 *Digital Audio*, Senior seminar, EE Dept., U. of Florida, 1991.
 - 1 *Introduction to Neural Networks*, Psychology Department, 1990.

COMPUTATIONAL NEUROENGINEERING LABORATORY

Dr. Principe is the Founder and Director of the Computational NeuroEngineering Laboratory (CNEL), www.cnel.ufl.edu, a world renown center for neural network research. Since 1992 the CNEL website was visited more than 150,000 times. Two Professors work in the CNEL, along with 10 to 15 graduate students. Presently the CNEL is conducting research in the processing of non-Gaussian, non-stationary and nonlinear signal models, using information theoretic learning, mixture of experts and nonlinear dynamics. The CNEL laboratory is part of the University of Florida Brain Institute, and engages also in biomedical engineering research.

CNEL Visitors

Dr. Pablo Ziegers, Professor, U. Catolica, Santiago Chile, Dec 2015-2016.

Dr. Haiquan Zhao, Assoc. Prof., Southwest Jiaotong U., Chengdu, China, Aug 1, 2015 Aug 1-2016.

Ms. Hong Ji, Ph.D. Student, Xi'An Jiaotong U. China, Dec-Apr 2015.

Ms. Yi Qu, Ph.D. Student, Zhejiang U. China, Sept-Apr 2015.

Mr. Guibiao Xu, Ph.D. Student, Institute of Automation, Chinese Academy of Sciences, Beijing, China, Aug 2014-Aug 2015.

Dr. Pablo Ziegers, Professor, U. Catolica, Santiago Chile, Oct-Dec 2013.

Mr. Andres Alvarez, Ph.D. student, U. Nacional Colombia, Manizales, Apr-June, 2013

Mr. Mr. Pablo Hujise, Ph.D. student, U. of Chile, Santiago, March-Aug 2013.

Mr. Hugo Silva, Ph.D. Student, Tec. University, Lisbon, Portugal, Aug-Dec 2012.

Ms. Cristina Silva, Ph.D. Student, U. of Maranhao Brasil, Aug-Dec 2012.

Ms. Aurea Ribeiro, Ph.D. Student, U. of Maranhao Brasil, Aug-Dec 2012.

Ms. Yuxi Liao, Postdoc Zhejiang University, Hangzhou 310027, China, March 2012- Aug 2012.

Dr. Doo-Hyun Choi, Professor, Kyungpook National Univ, South Korea, Mar 2012-Mar 2013

Ms. Mehrnaz Hazrati, Ph.D. Student, U. of Lubeck, Germany, Nov 2011-Apr 2012.

Dr. Yoshinori Takeuchi, Nagoya U., Japan, Oct18-25, 2011

Mr. David Rego, Ph.D. Student, U. la Coruna, Spain, Sept 2011- Dec 2011.

Mr. Fausto Lucena, Ph.D. Student, U. of Nagoya Japan, Sept 2011-Dec 2011.

Ms. Veronica Canedo, Ph.D. Student, U. la Coruna, Spain, Sept 2010-

March 2011.

Mr. Genaro Daza Santacoloma, Ph.D. student, U. Nacional de Colombia, Jan 2010-May 2010.

Mr. Diego Alvarez Estevez, Ph.D. Student, U. a Coruna, Spain, from August 2009, March 2010.

Dr. Lingjiang Kong , Asscociate Professor, Deparment of EE, University of Electronic Science and Technology of China (UESTC) sponsored by the China Schorlarship Council, August 2009-10.

Mr. Hao Cheng, Ph.D. student at the University of Electronic Science and Technology of China (UESTC) sponsored by the China Schorlarship Council, August 2009-10.

Mr. Pablo Cortez, M. Sc. student, U. of Santiago, Chile, September-November 2008.

Mr. Steven Van Vaerenbergh, Ph.D. student, U. Cantabria, Spain, August-November, 2008.

Mr. Miguel Prada, Ph.D. student, U. of Leon, Spain, Aug-Dec 2007.

Mr. Rodrigo Sacchi, Ph.D. student, U. of S. Paulo, Brazil, Aug-Dec 2006.

Mr. Johan Nyqvist, Master student, Royal Inst. Tech., Oslo Sweden, Aug - Dec 2006.

Ms. Mariana Almeida, Ph.D. student, Tech U. of Lisbon, Portugal, Sept - Dec 2006.

Dr. Aurelio Campilho, Full Professor, U. of Porto Portugal, March and April 2006.

Dr. Allan Medeiros, Post-Doctoral Fellow, U. of Rio Grande do Norte, Natal, Brasil, 1/3/06 to 12/31/06.

Dr. Joao Xavier, One week course on Differential Geometrical Methods in Signal Processing, Jan 8 -13, 2006.

Mrs Nadia Mamonne, Ph.D. student, U. of Reggio Calabria, Italy, 9/1/05- 12/20/ 05

Dr. Vladimiro Miranda, Professor, ECE, U. of Porto, Portugal, 3/1/05- 4/30/05

Dr. Ignacio Santamaria, Professor, ECE, U. of Santander, Spain, 9/1/04- 12/31/ 04

Dr. Mike Steiber, Associate Professor, U. of Washington, 8/1/04-8/1/05 (sabbatical).

Mr. Tue Lehn-Schioler, Ph.D. candidate, Technical U. of Denmark, Lyngby, Denmark, 1/1/03-8/1/03.

Mr. Robert Jenssen, Ph.D. candidate, U. of Tromso, Norway, 9/1/02- 8/1/03.

Prof. Marcelino Lazaro, U. of Carlos III, Madrid, Spain, 9/1/02-12/1/02.

Prof. Young Ro Yoon, Assoc. Prof. Yonsei U., Korea 9/1/01-9/1/02

Dr. Oscar Romero, U. A Coruna, Spain, 9/1/01- 12/1/01

Prof. Han-jung Song, Assoc. Prof. Choong-Chung U. Korea 7/1/01-7/1/02
Prof. Luis Vielva, Assist. Prof. U. of Santander, Spain, 5/1/01-8/1/01
Prof. Ignacio Santamaria, Assoc. Prof. U. of Santander, Spain, 9/1/00-12/20/00
Prof. Turgay Ibrikci, U. of Cukurova, Turkey, 7/15/00- 9/30/00
Prof. Francisco Vaz, Prof. ECE, U. of Aveiro, Portugal, 1/4/00-4/1/00
Dr. Ernst Haselsteiner, post doc, U. of Graz, Austria, 4/1/99 - 9/1/99.
Dr. Yolanda Blanco, post-doc U. of Madrid, Spain, 9/15/99 -12/15/99.
Dr. Jens Kohlmorgen, Fraunhofer Institute, Germany, 5/1/99-8/1/99.
Prof. Cristina Mejuto, Assist. Prof. U. of A Coruna, Spain 5/1/99-8/1/99
Prof. Pedro Oliveira, Electrical Eng. Dept, U. of Porto Portugal, 1/5/99-4/1/99.
Prof. Amparo Alonzo, Computer Science Dept., U. of A Coruna, Spain 10/1/98-12/1/98
Prof. Vladimir Krajca, Czech Tech. U., Czech Republic, 9/1/97-4/1/98.

SPONSORED RESEARCH

- 77 Co-PI (Andy Li PI), University of Florida Planning Proposal: I/UCRC for Big Learning, NSF, \$15,000, 2016.
- 76 PI, Collaborative Research: NCS-FO: A computational neuroscience framework for olfactory scene analysis within complex fluid environments, NSF, \$409,000, 2016-2019
- 75 Co-PI (Ouyang PI, FAU), Perception Action Cycle-based Automatic Coral Classification for Underwater Surveillance, NOAA (sub contract FIU), \$52,000, 2016-2017
- 74 PI, “Pulse Based Syntactic Algorithms for Speech Processing & FPGA Implementation”, DARPA, \$205,000, 2015-2016.
- 73 PI, “Multi environment ATR Based on Bidirectional Architectures”, ONR, \$381,000, 2015-2017.
- 72 Co-PI (Bashirullah PI), “Implantable Multimodal Peripheral REcording and Stimulation System (IMPRESS)”, DARPA HAPTIX, \$12,000,000 (UF portion \$2,000,000), 2015-2018.
- 71 Co-PI (Okun PI), “A Responsive Closed-Loop Approach to Treat Freezing of Gait in Parkinson’s Disease”, Michael J. Fox Foundation, \$80,000, 2015-2016
- 70 Co-PI (PI Ouyang, FAU), “Unobtrusive multi-static serial LiDAR imager (UMSLI) for wide area surveillance and identification of Marine Life” DoE, \$90,000, 2015-16
- 69 PI, “Design, Implementation and a Test of a Cognitive Computational Architecture for Perception”, ONR Science of Autonomy, \$798,000, 2014-2017
- 68 PI (with Panos Pardalos), “A Dynamic Data Driven Cognitive Control Architecture for Exploration”, AFSOR, \$195,665, 2013.
- 67 PI, “Design and Validation of ATR Systems with Humans in the Decision Loop”, ONR, \$320,000, 2013-2104.
- 66 PI (with Janis Daly), “Stroke Rehabilitation with Brain Machine Interfaces”, UF Opportunity Fund, \$82,000, 2011-2013.
- 65 Co-PI (PI B. Acke), “Strategies to Encode Odor Information”, NIH R21, \$220,000, 2011-2013.

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- 64 Co-PI (PI), Downscaling Satellite-Based Passive Microwave Observations Using High Resolution Remote Sensing”, NASA, \$148,000, 2012-2015.
- 63 PI, “A Framework for the Analysis and Processing of Continuous Data Streams over Clouds”, HP, \$50,000, 2011.
- 62 PI (with A. Keil and P. Pardalos), “Quantifyinig Causality in Distributed Spatial Temporal Brain Networks”, NSF-IIS, \$550,000, 2010-2013.
- 61 PI, “Anomaly detection in multivariate data streams using kernel methods and information theoretic cost functions”, HP, \$50,000, 2010.
- 60 PI (with J. Reilly), “Self-Organizing Functional Hierarchical Memories with Wake-Sleep Cycle Consolidation, ONR, \$480,000, 2010-2013.
- 59 Co-PI (PI J. Francis, SUNY). “Creating the Synthetic Brain Through Hybrid Computational and Biological Systems: Repairing and Replacing Neural Networks”, DARPA, \$10,000,000 (UF part \$3,165,000), 2010-2013.
- 58 PI (with C. Slatton), Surprise Metric for Sensor Contact Fusion in Sparse Data Environments, ONR, \$435,000, 2010-2013.
- 57 PI, Kalman Filters in RKHS, NSF, \$260,000, 2009-2012.
- 56 Co-PI (PI C. Slatton) Probabilisitc Graphical Models for Image Co-Registration, US Navy, \$300,000, 2007-2010.
- 55 Co-PI (PI J. Harris) An ultra-low power wireless neural recording implant based on a novel pulse representation, NIH \$2,550,000, 2007-2010.
- 54 Co-PI (PI P. Kraghonekar) Center for Innovative Brain Machine Interfaces, NSF-PFI, \$600,000, 2006-2009.
- 53 Co-PI (PI J. Li), Machine Learning and Information Theoretic Approaches to Automatic Target Recognition and Detection, Lockheed Martin, \$75,000, 2006.
- 52 PI, Optimal Modeling in RKHS, NSF, \$240,000, 2006-2009.
- 51 Co-PI (PI J Harris), A Spike-based Computer Architecture for Sensory Processing, NSF, \$300,000, 2006-2009

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- 50 Co-PI (PI J. Fortes), Dynamic Data Driven Brain Machine Interfaces, NSF-DDDAS, \$936,000, 2005-2009.
 - 49 Technical Core Director (with P. Lang), Center for the Study of Emotion and Attention, NIH, \$9,378,165 (ECE \$420,200), 2005-2010.
 - 48 PI, Biocomputational Modeling Principles of Neuron Culture Dynamics, NSF CNCS, \$587,000, 2004-2008.
 - 47 Co-PI (with J. Fortes), Collaborative research on wide-area network computing using virtual machines, NSF CISE, \$515,000, 2002.
 - 46 PI, A theory of learning based on pairwise interactions, NSF Neuroengineering, \$280,000, 2003-2006.
 - 45 PI (with M. Nicolelis), Closed loop brain-machine interface for augmenting motor performance, DARPA, \$23,000,000.00, 2002-2007 (UF portion is \$3,000,000.00).
 - 44 PI, Identification & Control of Aircrafts using multiple models and adaptive inverse control, NASA Langley, \$270,000, 2002-6.
 - 43 PI, Brain Computer Interfaces, seed grant, College of Engineering, \$25,000, 2001.
 - 42 Co-PI (with C. Sackellares), Bioengineering Research Partnership for Brain Dynamics, NIH, \$3,217,810, 2001-2005.
 - 41 Co-PI (with J. Fortes), Design and simulation of biologically inspired nanolattice computing architectures, NSF ITR, \$2,000,000, 2001-2004.
 - 40 PI, Improving Adaptive Critics with Multiple Switching Models, \$80,000, Accurate Automation Corp., 2001.
 - 39 PI, Information Dynamics and Design of Neuromorphic Silicon Cortices, \$481,586, ONR, 2001-2004.
 - 38 PI, Support Vector Machines for FOPEN Discrimination, \$50,000, MIT/Lincoln Laboratory, 2000.
 - 37 Technical Core Director (with P. Lang), NIH Center for the study of Emotion and Attention, \$4,785,510, 1999-2004.
 - 36 PI, Radar Signal Processing for Space Applications, Honeywell Corporation, \$17,370, 1999.
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- 35 PI, Information theoretic extraction of EEG features for monitoring subject attention, NASA, \$59,926, 1999.
 - 34 PI, "Information theoretic learning for signal processing and pattern recognition", NSF, \$182,000, 1999-2001.
 - 33 Co-PI (with J. Li), "Acquisition and recognition of moving targets & technologies, DARPA, \$360,000, 1999-2000.
 - 32 PI, "Improving digital hearing aids with blind source separation algorithms", BME seed grant, UF, \$14,480, 1999-2000.
 - 31 PI, "A Net-centric undergraduate course in adaptive systems", NSF, \$400,000, 1998-2001.
 - 30 PI, "Learning Environments for NeuroComputing", NSF, \$30,000, 1997.
 - 29 Co-PI (with C. Sackellares), "Dynamic Studies in Temporal and Frontal Lobe Epilepsy", NIH/NINDS, \$715, 973, 1997-2001.
 - 28 Investigator (with P. Lang), "Fear and the anxiety disorders: brain and anxiety", NIH, \$1,744.185, 1997-2001.
 - 27 PI, "Statistical Independent and relevant feature extraction for classification of SAR imagery", DARPA/ISO, \$542,617, 1997-2001.
 - 26 PI, "A focus of attention for SAR based on enhanced quadratic gamma detectors", DARPA/ISO, \$298,000, 1997-1999.
 - 25 PI, "NeuroComputational models for describing feature extraction phenomena in the auditory cortex", Max-Kade Foundation, \$34,000, 1996-1997.
 - 24 Co-PI (with C. Leonard), "Automatic volumetric analysis of the auditory cortex using self-organizing principles", NSF, \$100,000, 1996-1998.
 - 23 Co-PI (with D. Childers), "Interactive model of the vocal folds and turbulent noise for speech synthesis", NSF, \$93,463, 1996-1999.
 - 22 PI, "Annual grantees meeting of the Nonlinear dynamics program", ONR, \$29,128, 1996.
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- 21 PI, "Nonlinear extensions to the MACE filter for automatic target recognition", Lockheed-Martin, \$39,542, 1995.
 - 20 PI, "Recurrent Neural networks for the processing of nonlinear nonstationary signals", NSF, \$231,790, 1995-99.
 - 19 PI, "Localization and Recognition of sound signatures using biologically plausible sensors and recurrent neural networks", ONR, \$582,489, 1994-1997.
 - 18 PI, "Word Spotting with the Gamma Neural Model", NSA, \$296,546, 1993-1996.
 - 17 PI, "Automatic Target Recognition with Recurrent neural Networks", ARPA, \$323,923, 1993-1996.
 - 16 PI, "A new connectionist model for time varying signal classification", NSF, \$183,211, 1992-1994.
 - 15 Investigator (with B. Luttge), "Medical Personnel Collaborative Spinal Cord Injury, Paralysis, Neuroscience research, education and training facility", DOD, \$18,000,000, July 1992-1997.
 - 14 Co-PI (with G. Tlusty), "Machine tool research institute", NSF, \$932,189, 1992-1997.
 - 13 PI, "Word Spotting with the gamma network", David Sarnoff Research Center, \$3,956, July-Aug 1992.
 - 12 PI, NIH Research Instrumentation, 1992-1993, \$3,000.
 - 11 Co-PI (with G. Tlusty), "Comprehensive supervision system for machining centers", NSF, \$706,674, 1990-1993.
 - 10 Co-PI (with A. Arroyo), CISE Instrumentation Resources, NSF, \$41,000, 1990-1992.
 - 9 PI, "Cortical Mouse: a new way of communicating with computers", FHTIC, \$50,000, 1990.
 - 8 PI, "Symbolic-Numeric Machine tool Supervision", NSF, \$79,000 (2 years), 1989.
 - 7 PI, "Microelectronic Biosensor for Neural Tissue Data Collection", NSF, \$91,000, 1989.
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- 6 PI, "Knowledge-based Machine tool supervision", FHTIC, \$20,000, 1989.
 - 5 Investigator (with D. Childers), "Multimedia System Control", ADC, \$90,000, 1988.
 - 4 General Secretary, INIC Research Center, Electrical Engineering Department, University of Aveiro (1980-1985).
 - 3 Co-PI, Line of research "Information Technologies in Health Care", Portuguese Institute of Engineering and Computer Sciences (INESC) US\$30,000 (1985).
 - 2 PI, "Development of Automated Systems for EEG Analysis", Portuguese Institute for Science and Technology (JNICT), Grant #304.81.13 US\$100,000 (1981-1984).
 - 1 PI, Line of research "Computerized EEG Analysis", Portuguese Institute of Scientific Research (INIC)/ University of Aveiro, US\$150,000 (1980-1985).

PH.D. STUDENT SUPERVISION (Chair/co-Chair)

- 88 Nallatambi, Gabriel, “Non Numeric Signal Processing for the Integrate and Fire Converter”, U. of Florida, Fall 2015
- 87 Kriminger, Evan, “An Effective and Robust Method for Active Constrained Clustering”, U. of Florida, Fall 2015.
- 86 Craciun, Stefan, “FPGA Architecture for Real-Time Information Extraction and Feature-Based Classification in Image Processing”, U. of Florida, Fall 2015 (co-supervisor).
- 85 Philips, Gavin, “Functional Connectivity Based Biomarkers for Evaluation and Guidance of BCI-Enabled Post-Stroke Motor Recovery”, U. of Florida, Fall 2015
- 84 Kan Li, “Recurrent Adaptive Filtering in Reproducing Kernel Hilbert Spaces”, U. of Florida, Spring 2015.
- 83 Goktug Cinar, “Self-Organized Computational Perception in the Time Frequency Domains”, U. of Florida, Spring 2015.
- 82 In Jun Park, “A Computational Model for Animal Navigation in Turbulent Odor Plumes”, U. of Florida, Fall 2014.
- 81 Austin Brockmeier, “Learning and Exploiting Recurrent Patterns in Neural Data”, U. of Florida, Spring 2014.
- 80 Rosha Pokharel, “Robust Kernel Adaptive Learning for Online Supervised Systems”, U. of Florida, Spring 2014.
- 79 Rakesh Chalasani, “A Hierarchical Dynamical Model for Object Recognition”, U. of Florida, Fall 2013.
- 78 Jihye Bae, “Reinforcement Learning with online Kernel Temporal Differences”, U. of Florida, Summer 2013.
- 77 Pingping Zhu, “Kalman Filtering in Reproducing Kernel Hilbert Spaces”, U. of Florida, Spring 2013.
- 76 Bilal Fadlallah, “Quantifying Cognitive Processes in the Human Brain Using Measures of Dependence”, U. of Florida, Spring 2013.

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- 75 Songlin Zhao, “From Fixed to Adaptive Budget Robust Kernel Adaptive Filtering”, U. of Florida, Fall 2012.
 - 74 Lin Li, “Kernel Based Machine Learning Framework for Neural Decoding”, U. of Florida, Fall 2012.
 - 73 Luis Sanchez-Giraldo, “Reproducing Kernel Hilbert Space Methods for Information Theoretic Learning”, U. of Florida, Summer 2012.
 - 72 Erion Hasanbelliu, “Information Theoretic Similarity Measures for Shape Matching”, U. of Florida, Spring 2012.
 - 71 Carolyn Krekeler, “A Bayesian Based Graphical Model Framework for Estimation and Forecast of Stream Flow”, U. of Florida, Spring 2012.
 - 70 Alexander Singh Alvarado, “Time encoded compression and classification using the integrate and fire sampler”, U. of Florida, Spring 2012.
 - 69 Kittipat Kampa, “Data-driven Structured Graphical Model For Image Segmentation”, U. of Florida, Fall 2011
 - 68 Tory Cobb, “Sonar Image Modeling For Texture Discrimination and Classification”, U. of Florida, Fall 2011.
 - 67 Sohan Seth, “On nonparametric measures of dependence and conditional independence: Theory and applications”, U. of Florida, Summer 2011.
 - 66 Il (Memming) Park, “Capturing Spike Train Similarity Structure: a Point Process Divergence Approach”, U. of Florida, Summer 2010.
 - 65 Shalom Darmanjian, “Design and Analysis of Generative Models for Brain Machine Interfaces”, U. of Florida, Fall 2009.
 - 64 Jack DiGiovanna, “Changing the Brain Machine Interface Paradigm: Co-adaptation Based on Reinforcement Learning”, U. of Florida, Fall 2008.
 - 63 Weifeng Liu, “Adaptive Filtering in Reproducing Kernel Hilbert Spaces”, U. of Florida, Fall 2008.
 - 62 Sudhir Rao, “Unsupervised Learning: An Information Theoretic Learning Approach”, U. of Florida, Summer 2008.
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- 61 Aysegul Gunduz, "Human Motor Control via Electrocorticographic Brain machine Interfaces", U. of Florida, Summer 2008.
 - 60 Ruijiang Liu, "Spatio-temporal Methdology for Single Trial ERP Component Estimation", U. of Florida, Summer 2008.
 - 59 Antonio Paiva, "Reproducing Kernel Hilbert Spaces for Point Processes, with applications for Neural Activity Analysis", U. of Florida, Summer 2008.
 - 58 Yiwen Wang, "Point Process Monte Carlo Filtering for Brain Machine Interfaces", U. of Florida, Spring 2008.
 - 57 Puskal Pokharel, "Time Series Analysis with Information Theoretic Learning and Kernel Methods", U. of Florida, Fall, 2007
 - 56 JianWu Xu, "Nonlinear Signal Processing Based on Reproducing Kernel Hilbert Space", U. of Florida, Summer, 2007
 - 55 Kyu-Hwa Jeong, "The Correntropy MACE Filter for Image Recognition", U. of Florida, Summer, 2007
 - 54 Seungjo Han, "A Family of Minimum Renyi's Error Entropy Algorithm for Information Processing:", U. of Florida, Summer, 2007
 - 53 Mustafa Ozturk, "Echo State Networks and its Applications", U. of Florida, Spring 2007.
 - 52 Dong Han, A new class of sparse channel estimation methods based on support vector machines", U. of Florida, Fall 2006.
 - 51 Jing Lan, "Mixture of Expert Modeling and Control", U. of Florida, Summer 2006.
 - 50 Rui Yang, " Multiple Models for Imaging Reconstruction in Multi Coil MRI", U. of Florida, Spring 2006.
 - 49 Anant Hegde, "Space Time Similarity Measures for EEG in Epilepsy", U. of Florida, Spring 2006.
 - 48 Hui Liu, "Online Automatic Epileptic Seizure Detection from the Electroencephalogram", U. of Florida, Fall 2005.
 - 47 Dong Ming Xu, "Dynamical Analysis, Applications and Analog Implementation of a Biologically Realistic Olfactory Cortex Model, U. of Florida, Summer 2005.
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- 46 Phil Kim, "Design and Analysis of Optimal Deconding Models for Brain Machine Interfaces", U. of Florida, Spring 2005.
 - 45 Jeongho Cho, "Multiple Modeling and Control of Nonlinear Systems with the Self-Organizing Map", U. of Florida, Fall 2004.
 - 44 Yadunanda Rao, 'An Augmented Error Criterion for Linear Adaptive Filtering: Theory, Algorithms, and Applications', U. of Florida, Spring 2004.
 - 43 Justin Sanchez, 'From Cortical Neural Spike Trains to Behavior: Modeling and Analysis', U. of Florida, Spring 2004.
 - 42 Ken Hild II, "Blind Source Separation of Convulsive Mixtures using Renyi's Divergence", U. of Florida, Fall 2003.
 - 41 Michael Johnson, "Limit cycle oscillation modeling in aircraft wings using adaptive linear models", U. of Florida, Summer 2003.
 - 40 Rodney Morejon, "An information theoretic approach to sonar automatic target recognition", U. of Florida, Spring 2003
 - 39 Ching-an Lai, "Global Optimization Algorithms for Adaptive IIR Filtering", U. of Florida, Fall 2002.
 - 38 Deniz Erdogmus, "Information Theoretic Learning: Renyi's entropy and its applications to adaptive systems training", U. of Florida, Spring 2002.
 - 37 Vitor Tavares, "Design and Implementation of a biologically realistic olfactory cortex in analog VLSI", U. of Florida, Fall 2001.
 - 36 Victor Brennan, "Principal Component Analysis with Multiresolution", U. of Florida, Spring 2001.
 - 35 Erhan Gokcay, "A New Clustering Algorithm for Segmentation of Magnetic Resonance Images", U. of Florida, Summer 2000.
 - 34 W. Curt Lefebvre, "Neural Network Based Control Designs for Complex Industrial Process Applications", U. of Florida, Spring 2000.
 - 33 Douglas G. Jones, "System modeling using generalized feedforward networks", U. of Florida, Summer 1999.
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- 32 Hsiao-Chun Wu, “Blind source separation using information measures in the time and frequency domains”, U. of Florida, Spring 1999.
 - 31 Dongxin Xu, “Energy, Entropy and Information Potential for Neural Computation”, University of Florida, Spring 1999.
 - 30 Craig Fancourt, “Gated competitive systems for unsupervised segmentation and modeling of piecewise stationary signals”, University of Florida, Fall 1998.
 - 29 Li-Kang Yen, “Focus of Attention for MMW and UWB Target Recognition”, University of Florida, 1998.
 - 28 Neil Euliano, “Self-organization in space and time”, University of Florida, 1998.
 - 27 Frank Candocia, “A unified super-resolution approach for optical and synthetic aperture radar images”, University of Florida, 1998.
 - 26 J-Kuo Juan, “Analog implementation of locally recurrent adaptive filters”, University of Florida, 1998 (co-Chair).
 - 25 C-J Pu, “A neuromorphic microphone for sound localization”, University of Florida, 1998 (co-Chair).
 - 24 Mark Motter, “Neural control of the NASA Langley 16-foot transonic tunnel”, University of Florida, 1997.
 - 23 Mohamed Ismail, “Adaptation of generalized feedforward filters with applications to speech”, University of Florida, 1997.
 - 22 John Fisher, “Nonlinear Extensions to the MACE filter”, University of Florida, 1997.
 - 21 Ludong Wang, “Local dynamic modeling with self-organizing feature maps”, University of Florida, 1996.
 - 20 Chuan Wang, “An information theoretic perspective for learning systems with engineering applications” University of Florida, 1996.
 - 19 Munchurl Kim, “Focus of attention based on gamma kernels for automatic target recognition”, University of Florida, 1996.
 - 18 Samel Celebi, “Representation of locally stationary signals using lowpass moments”, University of Florida, 1995.
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- 17 Hui-Huang Hsu, "Neural networks for signal and information processing", University of Florida, 1994.
 - 16 JinGeol Lee, "Measurements of granular flow dynamics with high speed digital images", University of Florida, 1994.
 - 15 Russ Walters, "A distributed in-process supervision of milling based on signal processing machining models", University of Florida, 1993.
 - 14 Karl Gugel, "Partitioning artificial neural networks onto coarse granular parallel systems", University of Florida, 1993.
 - 13 Jyh-Ming Kuo, "Nonlinear Dynamical Modeling with Artificial Neural Networks", University of Florida, 1993.
 - 12 Armando Barreto, "A spatio-temporal approach to epileptic focus localization from array electrocorticography", University of Florida, 1993.
 - 11 Haan Go Choi, "Multiresolution segmentation methodology for respiratory electromyographic signals", Ph. D., University of Florida, 1992.
 - 10 Tarek Anwar, "On the application of conceptual clustering for knowledge discovery in data bases", University of Florida 1992, (co-chair).
 - 9 Sonja Ebron, "Reliability assessment of bulk power systems using neural networks", University of Florida, 1992 (co-chair).
 - 8 Jeff Spaulding, "A new adaptive algorithm for real-time equalization of acoustic fields", University of Florida, 1992.
 - 7 Bert deVries, "Temporal Processing with Neural Networks- The development of the gamma model", University of Florida, 1991.
 - 6 Tom Davis, "Towards an extrapolation of the simulated annealing convergence theory onto the simple genetic algorithm", University of Florida, 1991.
 - 5 Seung-Hun Park, "A knowledge-based approach to abnormal EEG spike detection", University of Florida, 1990 (co-supervisor).
 - 4 Ana Maria Tome, "Multiprocessing system for sleep analysis", University of Aveiro, Portugal, 1990.
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- 3 Pei-Chen Lo, "Application of nonlinear dynamical theory to EEG signal processing and modeling", Ph.D. Dissertation, University of Florida, 1990.
 - 2 Taewhan Yoon, "Numeric/Symbolic Machine Tool Supervision", Ph.D. Dissertation, University of Florida, 1990.
 - 1 Francisco Vaz, "Spectral Characterization of the EEG in Epilepsy", Ph.D., University of Aveiro, Portugal, 1986.

MASTER STUDENT SUPERVISION (Chair/co-Chair)

- 65 Bibhu Prasad Mishra, "Estimation of Periodicity in Non-uniformly Sampled Astronomical Data - An Approach Using Spatio-temporal Correntropy", U. of Florida, Spring 2011.
 - 64 Rakesh Chalasani, "Adaptive Kernel Self-Organizing Maps with Information theoretic Learning", U. of Florida, Spring 2010.
 - 63 Abhishek Singh, "Cost Functions for Supervised Learning Based on a Robust Similarity Measure", U. of Florida, Spring 2010.
 - 62 Il "Memming" Park, "Continuous Time Correlation Analysis Techniques for Spike Trains", U. of Florida, Spring 2007.
 - 61 Rajvignesh Thogula, "Information theoretic self-organization of multiple agents", U. of Florida, Summer 2003.
 - 60 Scott Morisson, "A DSP Based computational engine for brain machine interfaces", U. of Florida, Spring 2003.
 - 59 Andrew Lin, "Finite precision effects and implementation for a VLSI based adaptive transversal filter", U. of Florida, Spring 2003.
 - 58 Geetha Thampi, "Identification and Control of Nonlinear Systems using SOM Based Multiple Models", U. of Florida, Spring 2003.
 - 57 Ganesan Ramachandran, "A comparison of algorithms for epileptic seizure detection", U. of Florida, Fall 2002.
 - 56 Nicolas Obolensky, "Kalman Filters for Moving Vehicle Tracking", U. of Florida, Summer 2002.
 - 55 Helene Chini, "Nonlinear neural networks for modeling and online segmentation of nonstationary signals", U. of Florida, Summer 2002
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- 54 Dorothee Marossero, "An information filter and its applications to image compression", U. of Florida, Spring 2002.
 - 53 Ravinder Singh, "An efficient protocol for live web based teaching", U. of Florida, Spring 2002.
 - 52 Miguel Santos, "Superresolution of Magnetic Resonance Image", U. of Florida, Spring 2002.
 - 51 Shayan Garani, "An activity diffusion enhancement to vector quantizers", U. of Florida, Spring 2001.
 - 50 Rajesh Kumar, "Web-based interfaces for an adaptive system' Interactive Book", U. of Florida, Spring 2001.
 - 49 Sashidhar Bhikkaji, "Implementation of an Automatic Target Detection System on a vector processing board", Spring 2001.
 - 48 Yadunandana Rao, "Algorithms for eigendecomposition and time series segmentation", M. Sc. University of Florida, Spring 2000.
 - 47 Helder Cochofel, "Real time adaptive inverse control of ventilators using neural networks", M.Sc. University of Florida, Spring 1999.
 - 46 Karthik Narasimhan, "A comparison of anatomical and waveform-based dynamic models of the vocal folds", M.Sc. University of Florida, Summer 1998.
 - 45 Lavanya Dodlatyvenkata, "A DSP processor implementation of blind source separation algorithms", M. Sc.University of Florida, Summer 1998.
 - 44 Edward Jakob, "A ring based multiprocessor for neurocomputing", M.Sc. University of Florida, Fall 1997.
 - 43 Odelia Schwartz, "Modeling the precedence effect for speech", M. Sc., University of Florida, 1996.
 - 42 Konstantinos Pappas, "Phase space reconstruction using gamma delay lines", M. Sc., University of Florida, 1996.
 - 41 James Shima, "FM demodulation using a digital radio and digital signal processing", University of Florida, 1995.
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- 40 John Robinson, “The CNEL Machine”, M.Sc. University of Florida, 1994.
 - 39 Alberto Villalon, “Spatial deconvolution approach to epileptic focus localization from array ECoG”, M. Sc., University of Florida, 1994.
 - 38 Howard Levin, “Physical modelling of organ reed pipes”, M. Sc., University of Florida, 1994.
 - 37 Herman Calabria, “Design and Implementation of an object-oriented neural network simulator”, M. Sc., University of Florida, 1994.
 - 36 Todd Hager, “A Neural Network approach to recognition of musical pitch and timbre”, M. Sc., University of Florida, 1994.
 - 35 Suresh Venkumahanti, “A DSP based MIMO machine for artificial neural network acceleration”, M.Sc., University of Florida, 1993.
 - 34 Todd Hornquist, “A multi-DSP parallel processo for the NeXT workstation with applications to neural networks”, M.Sc. University of Florida, 1993.
 - 33 Malhar Palkar, “Echo Cancellation with the gamma filter”, M.Sc., University of Florida, 1993.
 - 32 Larry Turner, “Feedforward neural networks with adaptive memory layers with applications to word recognition”, M.Sc., University of Florida, 1993.
 - 31 Alex Radisavljevic, “Multiresolution stochastic 3D shape models for image segmentation, M. Sc., University of Florida, 1993.
 - 30 Bernard Williams, “Pulse Energy modulation for digital-analog conversion in digital audio systems”, M. Sc., University of Florida, 1993.
 - 29 John MacCardle, “Measurement of particle speed through optical reflective sensing”, M. Sc., University of Florida, 1993.
 - 28 David Samson, “Real time pitch detection using filter banks and neural networks”, M. Sc., University of Florida, 1993.
 - 27 David Zweidinger, “Implementation of an 11 bit audio digital pulse-width modulator in 2mm CMOS”, M. Sc., University of Florida, 1993.
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- 26 Geoffrey Brooks, “Adaptive filtering for pixel level image prediction”, M. Sc., University of Florida, 1992.
 - 25 Archana Vasanthakumar, “Quantification of the EEG response to stimulus under anesthesia”, M. Sc., University of Florida, 1992.
 - 24 James Tracey, “Isolated-word speech recognition using the focused gamma neural network”, M. Sc., University of Florida, 1992.
 - 23 Abir Zahalka, “Signal Detection with neural networks: an application to the recognition of epileptic spikes”, M. Sc., University of Florida, 1992.
 - 22 Curt Lefebvre, “An object Oriented approach for the analysis of Neural Networks”, M. Sc., University of Florida, 1991.
 - 21 Randal Chang, “A Pitch Detection algorithm for complex music signals based on the Q transform”, M. Sc., University of Florida, 1991.
 - 20 Mohamed Ismail, “A real-time Speech Synthesizer”, M.Sc., University of Florida, 1991.
 - 19 Alok Rathie, “Nonlinear Signal Processing using Neural Networks”, M.Sc., University of Florida, 1991.
 - 18 Sina Eatemadi, “A new computer interface using event related potentials”, M. Sc., University of Florida, 1991.
 - 17 Stephen Miller, “Graphical waveform scrolling methodologies”, M.Sc., University of Florida, 1991.
 - 16 Hui-Huang Hsu, “Spike Visualization and analysis in phase space”, M.Sc., University of Florida, 1991.
 - 15 Fang-S. Yu, “Display of EEG Chaotic Dynamics”, M. Sc., University of Florida, 1990.
 - 14 Dean Brenner, “Classification of Dynamic Touch Sensor Signals using Neural Networks”, M.Sc., University of Florida, 1990.
 - 13 James Richards, “A gradient based variable step-size LMS algorithm”, M. Sc., University of Florida, 1990.
 - 12 David Bliss, “The implementation of an all digital audio system using PWM”, M. Sc., University of Florida, 1989.
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- 11 Daraius Hathriam, "Adaptive Gain Stabilization of the Electrocardiogram", M. Sc., University of Florida, 1989.
 - 10 Tim Vath, "Electroencephalographic data control and display", M. Sc., University of Florida, 1989.
 - 9 Andy Adkins, "An all digital audio equalizer design", M. Sc., University of Florida, 1989.
 - 8 Steven Friedl, "The Auto Neo-cognitron", M. Sc., University of Florida, 1989.
 - 7 Haan-Go Choi, "Comparisons of smoothing algorithm for EEG analysis", M.Sc., University of Florida, 1988.
 - 6 Russ Walter, "Spike detection using a syntactic pattern recognition approach", M. Sc., University of Florida, 1988.
 - 5 Scott Orangio, "A Goal driven object-oriented interface for digital signal processing", M. Sc., University of Florida, 1988.
 - 4 Reinhold Urbschat, "SLICE simulation of analog, neuron-like circuits in an optimization problem", M.Sc., University of Florida, 1987.
 - 3 Rufus Cofer III, "A microcomputer based audio system for monitoring milling operations", M. Sc., University of Florida, 1988.
 - 2 Luis Menezes, "Digital Signal Processing of Geophysical Data", M.Sc., University of Aveiro, 1985.
 - 1 Ana Tome, "Microcomputer Implementation of a Digital Frequency Synthesizer", M.Sc., University of Aveiro, 1982.

PH.D. STUDENT in Academia

- 26 Austin Brockmeier, Post Doctoral Fellow at U. of Manchester.
 - 25 Jihye Bae, Post Doctoral Fellow at U. of Miami.
 - 24 Il (Memming) Park, Ph.D., 2010, Assistant Professor Department of Neurobiology and Behavior Stony Brook University.
 - 23 Jack DiGiovanna, Ph.D., 2008, Research Fellow at Ecole Polytechnic Federal Lausanne, Switzerland.
 - 22 Aysegul Gunduz, Ph.D., 2008, Assistant Professor Biomedical Eng. Dept, U. of Florida.
 - 21 Ruijiang Liu, Ph.D., 2008, Assistant Professor of Radiation Oncology Member of Bio-X & Stanford Cancer Institute Stanford University.
 - 20 Yiwen Wang, Ph.D., 2008, Associate Professor Quixi Academiy, Zeijiang University, Hangzhou, China.
 - 19 Phil Kim, Ph.D., 2005, Associate Professor, Ulsan National Institute of Science and Technology (UNIST), Ulsan, Korea.
 - 18 Justin Sanchez, Ph.D., 2004, Associate Professor at the Biomedical Eng Dept, U. of Miami.
 - 17 Deniz Erdogmus, Ph.D., 2002, Associate Professor, Electrical and Computer Eng. Dept., Northeastern University.
 - 16 Vitor Tavares, Ph.D., 2001, Associate Professor, Electrical Eng. Dept, Faculdade Eng. U. Porto (FEUP), Portugal.
 - 15 Hsiao-Chun Wu, Ph.D., 1999, Professor, Division of Electrical and Computer Engineering School of Electrical Engineering and Computer Science Louisiana State University.
 - 14 Frank Candocia, Ph.D., 1998, Professor, Eng. Department, Florida Atlantic University.
 - 13 John Fisher, Ph.D., 1997, Senior Research Scientist, MIT CSAIL.
 - 12 Munchurl Kim, Ph.D., 1996, Professor, KAIST, Korea.
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- 11 Hui-Huang Hsu, Ph.D., 1994, Professor and Chair Department of Computer Science and Information Engineering, Tamkang University Taiwan.
 - 10 Russ Walters, Ph.D., 1993, Visiting Professor Rinker School of Building Construction University of Florida.
 - 9 Karl Gugel, Ph.D., 1993, Senior Lecture, ECE Dept, University of Florida.
 - 8 Jyh-Ming Kuo, Ph.D., 1993, National Taiwan University, Taipe.
 - 7 Armando Barreto, Ph.D., 1993, Department of Electrical & Computer Engineering Florida International University.
 - 6 Haan-Go Choi, Ph.D., 1992, Professor, School of Electronic Engineering, Kumoh National Institute of Technology, Korea.
 - 5 Bert deVries, Ph.D., 1991, Professor at Eindhoven University of Technology and Principal Scientist at GN ReSound Netherlands.
 - 4 Seung-Hun Park, Ph.D. 1990, Dept. of Biomed. Eng., Kon-Kuk Univ., Choongbuk, South Korea.
 - 3 Ana Maria Tome, Ph.D. 1990, Associate Professor, University of Aveiro, Portugal.
 - 2 Pei-Chen Lo, Ph.D. 1990, Professor, Department of Electrical Engineering, National Chiao Tung University Taiwan.
 - 1 Francisco Vaz, Ph.D. 1986, Full Professor and Vice Rector, University of Aveiro, Portugal.