



## Kostas Berberidis

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**Personal:** Born in Serres, Greece, in 1962. Married with two children.

### Education:

- Diploma degree in electrical engineering from the Democritus Univ. of Thrace, Greece, in 1984.
- Ph.D. degree in computer engineering and informatics from the Univ. of Patras, Greece, in 1990.
- Postdoctoral Fellow at CNET/CCETT (Centre Commun d'Etudes de Telediffusion et Telecommunications), France (academic year 1994/95).

### Research and Academic Positions:

- National Defense Research Center, Speech Processing Lab (1991).
- Research and Academic Computer Technology Institute (1992-94 & 1996-97).
- Centre National d'Etudes des Télécommunications (CNET) / CCETT, France (1994-95).
- Dept. of Computer Engineering and Informatics (CEID), School of Eng., Univ. of Patras (1997 – today).
- Head of the Signal Processing & Communications Lab of CEID (2002 – today).
- Director (and founding member) of the Signal Processing & Communications Research Unit of the Computer Technology Institute & Press “Diophantus” (2008 – today).

### Research Interests:

- Adaptive Signal Processing Algorithms
- Distributed Signal Processing
- Digital Communications / Communications Signal Processing
- System Identification / Fast Algorithms
- Wireless Sensor Networks

- Array Processing and Adaptive Antennas
- Smart Power Grids
- Image Processing & Analysis
- Biomedical Signal Processing

### **Distinctions / Memberships to Boards:**

- Member of the Board of Directors (BoD) of the European Association for Signal processing (EURASIP), (term starting January 1, 2017).
- Chairman of the Greek Chapter of the IEEE Signal Processing Society (2010 – today).
- Associate Editor, IEEE Transactions on Signal Processing (2014- today).
- Associate Editor, IEEE Transactions on Signal Processing (2005-2008).
- Associate Editor, IEEE Signal Processing Letters (2009-2012).
- Associate Editor, EURASIP Journal on Applied Signal Processing (2004 – today).
- Associate Editor, Pattern Recognition Journal (Elsevier) (2006 – today).
- Guest Editor for a EURASIP JASP Special Issue (vol. 2007, Jan. 2007).
- Member of the Signal Processing Theory and Methods Technical Committee of the IEEE Signal Processing Society (2014 – today).
- Member of “Signal Processing for Communications and Electronics” Technical Committee of the IEEE Communications Society (2016 – today).
- Member of the “Theoretical and Methodological Trends for Signal Processing” EURASIP Special Area Team (2016 – today).
- Member of the “Signal Processing for Multisensor Systems” EURASIP Special Area Team (2016 – today).
- Best Paper Awarding Committee for EURASIP JASP Journal (2009 – today).
- Invited Speaker in International Conferences.
- Special Sessions and Workshops Organizer in International Conferences.

### **Miscellaneous activities:**

- Leader of a research group currently consisting of 2 Postdoctoral researchers, 3 PhD students and a number of MSc students.
- Until now, supervised 12 and co-supervised 6 Ph.D. students.
- Currently, supervision of 3 Ph.D. students and co-supervision of other 3.
- Supervised more than 30 MSc theses and more than 150 diploma (final year) theses.
- More than 20 years teaching experience at a University level.
- Author of four textbooks, one of which has been recommended as a course textbook in >10 different universities.

- Project leader of several R&D projects funded by International, European and National organizations (with total budget > 3MEuros).
- Evaluator for National, European, and International Research Programs.
- Evaluator of National Research Programs for several countries (Greece, Cyprus, Austria, Belgium, France, India etc).
- Reviewer for several international journals and conferences.
- Member of PhD Examining Committees in several Greek Universities as well as in Universities in France, Belgium, Malaysia, Spain, Denmark, Hong Kong, Australia, etc.
- Evaluation Committee member for tenure and/or promotion of Professors in several Greek Universities.
- External Evaluator for tenure and/or promotion of Professors in Universities in Europe, USA and Canada.
- Member of several major Professional and Scientific Societies, such as:
  - The Institute of Electrical and Electronics Engineers (IEEE) (Senior Member)
  - IEEE Signal Processing Society and IEEE Communications Society.
  - European Association for Signal Processing (EURASIP)
  - Technical Chamber of Greece and Greek Association of the Electrical and Electronic Engineers.
  - Greek Association for Image Processing and Digital Media.
- Served or has been serving at several Administrative positions at the University of Patras and other organizations, such as:

Currently:

- Deputy Head of CEID
- Member of the Quality Assurance Board of Patras University.
- Director of the Postgraduate Program “Signal Processing & Communication Systems”
- Director of the SP & COM Research Unit of CTI & P “DIOPHANTUS”
- U of Patras delegate to the ENNOVATION Contest
- Member of CEID Evaluation Committee

In past years:

- Director of the Hardware Division of CEID
- Member of the BoD of CEID
- Member of the Patras University Council
- Member of the ICT Committee of Patras University

### **Member of Organizing and/or Program Committees of International Conferences:**

Some major and recent conferences (**of the last 5 years**) in which I have contributed, mainly as a Technical Program Committee member, are the following:

- 2012 IEEE International Conference on Industrial Technology, IEEE ICIT-2012, Athens, March 2012.
- 2nd Signal Processing JAM (SP-JAM 2012), Thessaloniki, May 2012.

- 8th International Conference on Broadband Communications, Networks, and Systems, BROADNETS 2012, Limassol, Cyprus, Nov. 2012.
- 21st International Conference on Pattern Recognition, ICPR 2012, Tsukuba Science City, Japan, Nov. 2012.
- 2013 IEEE Wireless Comm. and Networking Conference, IEEE WCNC-2013, Shanghai, China.
- 2013 KES International Conference on Innovation in Medicine and Healthcare (InMed-3) , Piraeus, Greece, July 2013.
- 14th Conference on Engineering Applications of Neural Networks (EANN 2013), Halkidiki, Greece, Sept. 2013.
- 18th International Conference on Digital Signal Processing (DSP-2013), Santorini, Greece, July 2013.
- Special Session at the 21st European Signal Processing Conference (EUSIPCO-2013), Marrakech, Morocco, Sept. 2013. Organized with: J.C. Belfiore and K.K. Leung. Special Session title: “Wireless Sensor Networks for Smart Structures and Sustainable Environment”
- 2013 International Conference on Connected Vehicles & Expo (ICCVE 2013), Las Vegas, Nevada, USA, December 2013.
- The 2014 International Symposium on Signal Processing and Information Technology (ISSPIT 2013), Athens, Dec. 2013 (Technical Program Co-Chair).
- 2014 IEEE International Conference on Communications (ICC-2014), Cognitive Radio Networks Symposium, Sydney, Australia, June 2014.
- 2014 International Conference on Applied Algorithms, (ICAA 2014), Kolkata, India, Jan. 2014.
- 2014 IEEE Wireless Comm. and Networking Conference, IEEE WCNC-2014, Istanbul, April 2014.
- 2014 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP-2014), Florence, Italy, May 2014.
- 2014 (Eleventh) IEEE International Symposium on Wireless Communication Systems (ISWCS-2014), Barcelona, Spain, August 2014.
- 22nd International Conference on Pattern Recognition, (ICPR 2014), Stockholm, Sweden, Aug. 2014.
- 2014 19th International Conference on Digital Signal Processing (DSP-2014), Hong Kong, Aug. 2014.
- 2014 IEEE International Conference on Communication, Networks and Satellite (IEEE COMNETSAT 2014), Jakarta, Nov. 2014.
- 3rd Workshop on “Intelligent Innovative Ways for Video-to-Video Communications in Modern Smart Cities” (IIVC 2014), in conjunction with the 10th IFIP International Conference on Artificial Intelligence Applications and Innovations - AIAI 2014, Rhodes, Greece, Sept. 2014.
- The 2014 International Conference on Connected Vehicles & Expo (ICCVE 2014), Vienna, Austria, Nov. 2014.
- International Conference on Wireless Information Networks and Systems (WINSYS 2014), Vienna, Austria, Aug. 2014.
- The 2014 IEEE International Workshop on Computer-Aided Modeling Analysis and Design of Communication Links and Networks (IEEE CAMAD 2014), Athens, Dec. 2014.
- The 2014 IEEE International Conference on Imaging Systems and Techniques (IST 2014), Santorini, Oct. 2014.

- The 2014 International Symposium on Signal Processing and Information Technology (ISSPIT 2014), Noida, India, Dec. 2014.
- The 2015 IEEE Wireless Comm. and Networking Conference, IEEE WCNC-2015, New Orleans, USA, March 2015.
- 2015 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP-2015), Brisbane, Australia, May 2015.
- International Conference on Wireless Information Networks and Systems (WINSYS 2015), Colmar, France, July 2015.
- 16th Conference on Engineering Applications of Neural Networks (EANN 2015), Rhodes Island, Sept. 2015.
- The 2015 International Conference on Advances in Computing, Communications and Informatics (ICACCI-2015), Kerala, India, Aug. 2015.
- 2015 IEEE Signal Processing and Signal Processing Education Workshop (SPW2015), Salt Lake City, USA, Aug. 2015.
- 2015 IEEE 20th International Workshop on Computer Aided Modeling and Design of Communication Links and Networks (CAMAD-2015), Guildford, United Kingdom, Sept. 2015. (Special Session Co-Organizer).
- 2015 Asia Pacific Conference on Wireless and Mobile 2015 (APWiMob 2015), Bandung, Indonesia, Sept. 2015.
- 2nd Workshop on Innovative European Policies and Applied Measures for Developing Smart Cities (IPMSC 2015), Rhodes, Greece, Sept. 2015 (Technical Program Co-Chair).
- The 2015 IEEE International Conference on Communications (ICC-2015), Cognitive Radio Networks Symposium, and Communications Theory Symposium, London, UK, Sept. 2015.
- 2015 20th International Conference on Digital Signal Processing (DSP-2015), Singapore, Aug. 2015.
- The 2015 IEEE International Workshop on Computer-Aided Modeling Analysis and Design of Communication Links and Networks (IEEE CAMAD 2015), Guildford, UK, Sept. 2015.
- 23rd European Signal Processing Conference, EUSIPCO 2015, Nice, France, Aug. 2015.
- The 2015 International Conference on Image Processing (ICIP-2015), Quebec, Canada, Sept. 2015.
- 12th International Symposium on Wireless Communication Systems (ISWCS-2015), Brussels, Aug. 2015.
- The 2015 International Conference on Connected Vehicles & Expo (ICCVE 2015), | Shenzhen, China, October 19-23, 2015.
- 2015 International Conference on Machine learning and Signal Processing (MALSIP'2015), Nov. 2015.
- The 2015 IEEE Global Communications Conference (GLOBECOM-2015), San Diego, USA, Dec. 2015.
- The 2016 IEEE Wireless Comm. and Networking Conference, IEEE WCNC-2016, Doha, Qatar, April. 2016.
- 2016 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP-2016), Shanghai, China, April 2016.
- 2016 IEEE Signal Processing Workshop for Wireless Communication (SPAWC-2016), Edinburgh, UK, July 2016. (Special Session Co-Organizer).

- International Conference on Wireless Information Networks and Systems (WINSYS 2016), Lisbon, Portugal, July 2016.
- 2016 IEEE 9th Sensor Array and Multichannel Signal Processing Workshop (SAM 2016), Rio de Janeiro, Brazil, July 2016.
- 2016 IEEE Workshop on Statistical Signal Processing (SSP 2016), Palma de Mallorca, Spain, June 2016 (Track Chair).
- 24th European Signal Processing Conference, EUSIPCO 2016, Budapest, Hungary Aug. 2016. (Special Session Co-Organizer).
- 22nd Asia-Pacific Conference on Communications, APCC-2016, Indonesia, Aug. 2016.
- 13th International Symposium on Wireless Communication Systems (ISWCS-2016), Poznan, Poland, Sept. 2015.
- 2016 Asia Pacific Conference on Wireless and Mobile 2016 (APWiMob 2016), Bandung, Indonesia, Sept. 2016.
- 2016 International Conference on Advances in Computing, Communications and Informatics (ICACCI) ICACCI-2016, Jaipur, India, September 21-14, 2016
- The 2016 International Conference on Image Processing (ICIP-2016), Phoenix, USA Sept. 2016.
- 2016 20th International Conference on Digital Signal Processing (DSP-2016), Beijing, China, Oct. 2016.
- The 2016 International Conference on Connected Vehicles & Expo (ICCVE 2016), Seattle, USA, October 2016.
- 17th Conference on Engineering Applications of Neural Networks (EANN 2016), Aberdeen, UK, Sept. 2016.
- 12th IFIP International Conference on Artificial Intelligence Applications and Innovations (AIAI 2016), Thessaloniki, Greece, Sept. 2016.
- The 2016 IEEE International Conference on Imaging Systems and Techniques (IST 2016), Chania, Greece Oct. 2016.
- 2016 International Conference on Machine learning and Signal Processing (MALSIP-2016), Jakarta, Indonesia, Nov. 2016.
- 20th Panhellenic Conference on Informatics, PCI-2016, Patras, Greece, Nov. 2016 (Technical Program Co-Chair)
- 23rd International Conference on Pattern Recognition, (ICPR 2016), Cancun, Mexico, Dec. 2016.
- The 2016 IEEE Global Communications Conference (GLOBECOM-2016), Washington DC, USA, Dec. 2016.
- 2017 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP-2017), New Orleans, USA, April 2017.
- 2017 IEEE WCNC Workshop on Green and Sustainable 5G Wireless Network (Green 5G 2017), San Francisco, USA, March 2017.
- 22nd International Conference on Digital Signal Processing (DSP 2017), London, UK, Aug. 2017.
- 2017 International Conference on Wireless Networks and Mobile Systems (WINSYS 2017), Madrid, Spain, July 2017.

- 25th European Signal Processing Conference, EUSIPCO 2017, Kos island, Greece, Aug. 2016. (Organizing Committee member, Workshops Co-Chair)
- 18th Conference on Engineering Applications of Neural Networks (EANN 2017), Athens, Greece, Aug. 2017.
- 22nd IEEE International Workshop on Computer Aided Modelling and Design of Communication Links and Networks (CAMAD 2017), Lund, Sweden, June 2017.
- 2017 IEEE International Conference on Image Processing (ICIP 2017), Beijing, China from 17-20 September 2017.
- 2017 IEEE Global Communications Conference: Signal Processing for Communications, (Globecom 2017 SPC), Singapore, Dec. 2017.
- 2017 IEEE Global Communications Conference: Cognitive Radio Networks (Globecom 2017 CRN), Singapore, Dec. 2017.
- 2017 IEEE Global Communications Conference: Workshop on Sub-6 GHz Spectrum for 5G Progress (Globecom 2017 SenSe5G), Singapore, Dec. 2017.
- 14th International Symposium on Wireless Communication Systems (ISWCS 2017), Bologna, Italy, Aug. 2017.
- 32nd International Union of radio Science, General Assembly & Scientific Symposium, (URSI 2017 GASS), Montreal, Canada, Aug. 2017. (Special Session Co-Organizer).
- WCSP 2017 Wireless Communications Symposium (in the frame of The Ninth International Conference on Wireless Communications and Signal Processing). Nanjing, China, Oct. 2017.
- IEEE International Conference on Imaging Systems and Techniques (IEEE IST 2017), Beijing, China, Oct. 2017.
- 2017 International Conference on Internet of Things, Embedded Systems and Communications (IINTEC), Gafsa, Tunisia, Oct. 2017.
- 2018 International Conference on Computing, Networking and Communications (ICNC): Signal Processing for Communications, Maui, Hawaii, USA, March 2018.
- 14th IFIP AIAI (Artificial Intelligence Applications and Innovations) conference, Rhodes, Greece, May 2018.
- 25th International Conference on Telecommunications (ICT 2018), Saint Malo, France, June 2018.
- 19th IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC'18), Kalamata, Greece, June 2018.
- The 2018 IEEE International Conference on Communications (ICC-2018), Kansas City, USA, June 2018.
  - Cognitive Radio Networks Symposium.
  - Wireless Communications Symposium
  - Signal Processing for Communications Symposium.
- 2018 IEEE International Conference on Image Processing (ICIP 2018), Athens, Greece, September 2018. (Organizing Committee member)

### **List of R&D Projects (of the past 10 years) in which I was a Team Leader and/or Coordinator:**

- Project COM-MED (ERANETMED, 4 partners). “Communication systems for Renewable Energy Micro-Grids”, 2016-2019.
- Project HANDICAMS (European FP7 Future and Emerging Technologies Program, 4 partners). “Heterogeneous Ad-Hoc Networks for Distributed, Cooperative, and Adaptive Multimedia Signal Processing”. 2013-2016. WP Leader.
- Project GRIC (Greece – Franch bilateral collaboration program PLATON). “Smart Grid Renewables Integration: Communication and Information Processing Issues”. 2013-2015.
- Project ENDECON (Program THALES, Funded by the Greek General Secretariat for Research and Technology, 4 partners). “Energy-Efficient Design of Communication Networks”, 2012-2015.
- Project MIMOCORD (POSTDOC Program, Funded by the Greek General Secretariat for Research and Technology, 2 partners, Collaboration with Institut EURECOM). “Multi-Cell MIMO for Cognitive Radio”, 2012-2015.
- Project THERMOCAMERA (Program funded by Cyprus RPF, 4 partners). “Development of a handheld thermal imaging device for inspection of structures”, 2011-2013.
- Project SMARTEN (European FP7 Marie Curie Initial Training Network Program, 15 partners). “Smart Management for Sustainable Human Environment”. 2009-2013.
- Project DIESIS (European FP7 Marie Curie Program, 2 partners, Collaboration with the University of Minnesota, USA). “Distributed Estimation In Sensor Networks”. 2009-2012.
- Project COOP-CR (HRAKLEITOS PROGRAM, Greek Ministry of Education). “Efficient Cooperative Techniques for Cognitive Radio Networks”. 2010-2012.
- Project COOPCOM (European FP6 Future and Emerging Technologies Program, 7 partners). “Cooperative and Opportunistic Communications”. 2007-2009.
- Project ALFA (European FP6 CRAFT Program, 9 partners). “Development of an Automated Innovative System for Continuous Live Feed Production in Aquaculture Units”. 2006-2008.
- Project MIMO-CHEQ (Program PENED, Funded by the Greek General Secretariat for Research and Technology, 4 partners). “Development and study of efficient adaptive channel estimation and equalization techniques”. 2006-2009.
- Project WSN (Program PENED, Funded by the Greek General Secretariat for Research and Technology, 4 partners). “Sensor networks: Algorithms development, protocol design and performance evaluation”. 2006-2009.
- Project PROSTATE (Funded by the Foundation of Research Promotion of Cyprus, 3 partners). “Detection and grading of prostate cancer based on MRI images processing and analysis”. 2005-2007.
- Project SESAME (Bilateral Cooperation Program, Funded by the Greek and Cyprus Governments, 2 partners). “Development and implementation of speech-biometric techniques”. 2004-2006.



**Publications and International Patents:**

- 52 papers in refereed technical journals
- 107 papers in international conferences
- 1 contribution to standards
- 1 Guest Editorial and 2 Book Chapters
- 4 international patents
- 4 textbooks.

# Publications and International Patents

## *Journal Publications*

- J1. S. Theodoridis, K. Berberidis, N. Kalouptsidis, "A New Adaptive Covariance Symmetric Algorithm and a Fast Initialization Scheme for LS FIR Filters with Symmetric Impulse Response", *Signal Processing* (18), pp. 153-167, Oct. 1989.
- J2. K. Berberidis, S. Theodoridis, "A Normalized Lattice Algorithm for AR Spectral Analysis and System Identification Filters with Symmetric Impulse Response", *IEEE Trans. on Acoustics, Speech, and Signal Processing (ASSP)*, vol. 38, no. 3, pp. 397-405, Mar. 1990.
- J3. K. Berberidis, S. Theodoridis, "New Levinson, Schur, and Lattice type Algorithms for Linear Phase Filtering", *IEEE Trans. on ASSP*, vol. 38, no. 11, pp. 1879-1892, Nov. 1990.
- J4. S. Theodoridis, K. Berberidis, "Adaptive LS Lattice Algorithm for Linear Phase Filtering", in the "Algorithms and Parallel VLSI Architectures", Alle-Jan van der Veen (Ed.), North-Holland, 1991.
- J5. K. Berberidis, S. Theodoridis, "Efficient Symmetric Algorithms for the Modified Covariance Method for Autoregressive Spectral Analysis", *IEEE Trans. on Signal Processing*, vol. 41, No. 1, pp. 43-54, Jan. 1993.
- J6. T. Antonakopoulos, K. Berberidis, V. Makios, "A Computationally Efficient Method for Tone Detection in Noisy Channels", *International Journal of Electronics*, vol. 74, No. 6, pp. 885-900, 1993.
- J7. S. Theodoridis, G.V. Moustakides, K. Berberidis, "A Fast Newton Multichannel Algorithm for Decision Feedback Equalization", *IEEE Transactions on Signal Processing*, vol. 43, No. 1, pp. 327-331, Jan. 1995.
- J8. G.V. Moustakides, K. Berberidis, "New Efficient LS and SVD Based Techniques for High Resolution Frequency Estimation", *IEEE Transactions on Signal Processing*, vol. 43, No. 1, pp. 85-95, Jan. 1995.
- J9. K. Berberidis, J. Palicot, "A Frequency Domain Quasi Newton Algorithm", *Signal Processing* (47), pp. 235-238, 1995.
- J10. K. Berberidis, A.A. Rontogiannis, S. Theodoridis, "Efficient Time Domain Implementation of the Block Adaptive DFE", *IEEE Signal Processing Letters*, vol.5, pp.129-132, June 1998.
- J11. K. Berberidis, S. Theodoridis, "A New Fast Block Adaptive Algorithm", *IEEE Transactions on Signal Processing*, vol.47, pp.75-87, Jan.1999.
- J12. G.O. Glentis, K. Berberidis, and S. Theodoridis, "Efficient least squares adaptive algorithms for FIR transversal filtering: a unified view", *IEEE Signal Processing Magazine*, vol.16, no.4, pp.13-42, July 1999.
- J13. P. Spyridonos, P. Ravazoula, D. Cavouras, K. Berberidis, G. Nikiforidis, "Computer-based Grading of Hematoxylin-Eosin Stained Tissue Sections of Urinary Bladder Carcinomas", *Medical Informatics* (2001), vol.26, no.3, pp.179-190.
- J14. K. Berberidis, P. Karaivazoglou, "An Efficient Block Adaptive DFE Implemented in the Frequency Domain", *IEEE Transactions on Signal Processing*. vol.50, No.9, pp.2273-86, Sept. 2002.
- J15. A.A. Rontogiannis, K. Berberidis, "Efficient Decision Feedback Equalization for Sparse Wireless Channels", *IEEE Transactions on Wireless Communications*, vol.2, No.3, May 2003, pp.570-581.
- J16. A. Papadakis et al, "A novel Spectral Microscope System: Application in the Quantitative Mapping of the Expression of Estrogen and Progesterone Receptors in Breast Cancer Cells", *IEEE Trans. on Biomedical Engineering*, Vol.50, No.2, Feb. 2003, pp.207-217.

- J17. K. Berberidis, S. Rantos and J. Palicot, "A Step-by-Step Quasi-Newton Algorithm in the Frequency Domain and its Application to Adaptive Channel Equalization", IEEE Transactions on Signal Processing, Vol.52, No.12, Dec.2004, pp.3335-3344.
- J18. A.A. Rontogiannis, K. Berberidis, "Bandwidth Efficient Transmission Through Sparse Channels Using a Parametric Channel Estimation – based DFE", IEE Proceedings Communications, Vol.152, No.2, April 2005, pp.251-265.
- J19. A.A. Rontogiannis, K. Berberidis, A. Marava, and J. Palicot, "Efficient Semi-Blind Estimation of Multipath Channel Parameters via a Delay Decoupling Optimization Approach". Signal Processing Journal (Elsevier), no. 85, 2005, pp. 2394-2411.
- J20. V. Kekatos, A.A. Rontogiannis, and K. Berberidis, "A Robust Parametric Technique for Multipath Channel Estimation in the Uplink of a DS-CDMA System", EURASIP Journal on Wireless Communications and Networking, Vol. 2006, Article ID 47938, pp.1-12.
- J21. A.A. Rontogiannis, V. Kekatos, and K. Berberidis, "A Square-Root Adaptive V-BLAST Algorithm for Fast Time-Varying MIMO Channels", IEEE Signal Processing Letters, vol.13, no.5, May 2006, pp.265-268.
- J22. I. Karybali and K. Berberidis, "Efficient Spatial Image Watermarking via New Perceptual Masking and Blind Detection Schemes". IEEE Trans. on Information Forensics and Security, June 2006, pp. 256-274.
- J23. D. Ampeliotis, K. Berberidis, "Low Complexity Turbo Equalization for High Data Rate Wireless Communications", EURASIP Journal on Wireless Communications and Networking, Volume 2006, Article ID 25686, pp. 1–12.
- J24. K. Berberidis, "Adaptive Filtering in the Frequency-Domain: The Quasi-Newton Case", In the book entitled "Recent advances in applied signals, systems and image processing", Springer-Verlag, to appear.
- J25. K. Berberidis, "An Efficient Partitioning-Based Scheme for 2-D Convolution and Signal Processing Applications", Neural, Parallel and Scientific Computations journal, Vol.15, 2007, pp.489-500.
- J26. V. Kekatos, A.A. Rontogiannis, and K. Berberidis, "Cholesky Factorization – based Adaptive BLAST DFE for Wideband MIMO Channels", EURASIP Journal on Applied Signal Processing, Volume 2007, Article ID 45789, pp.1-11.
- J27. G.C. Alexandropoulos, N.C. Sagias, and K. Berberidis, "On the Multivariate Weibull Fading model with Arbitrary Correlation Matrix", IEEE Antennas & Wireless Propagation Letters, vol.6, 2007, pp.93-95.
- J28. A. Lalos and L. Berberidis, "An Efficient Conjugate Gradient Algorithm in the Frequency-Domain: Application to Channel Equalization", Signal Processing journal (ELSEVIER), vol.88, 2008, pp.99-116.
- J29. G. C. Alexandropoulos, N. C. Sagias, F. I. Lazarakis, and K. Berberidis, "New results for the multivariate Nakagami- $m$  fading model with arbitrary correlation matrix and applications," *IEEE Transactions on Wireless Communications*. Vol.7, No.11, Nov.2008, pp.1-11.
- J30. I. Karybali, E. Z. Psarakis, K. Berberidis and G. D. Evangelidis, "An Efficient Spatial Domain Technique for Subpixel Image Registration," Signal Processing: Image Communication, Elsevier, Vol. 23, Issue 9, pp. 711-724, Oct. 2008.
- J31. A. Lalos, V. Kekatos and K. Berberidis, "Adaptive Conjugate Gradient DFEs for Wideband MIMO Systems", IEEE Transactions on Signal Processing, vol. 57, No. 6, June 2009.
- J32. D. Ampeliotis, K. Berberidis, "Sorted Order-K Voronoi Diagrams for Model-Independent Source Localization in Wireless Sensor Networks", IEEE Transactions on Signal Processing, vol. 58, No. 1, Jan. 2010, pp.426-437.
- J33. D. Ampeliotis, K. Berberidis, "Low Complexity Multiple Acoustic Source Localization in Sensor Networks based on Energy Measurements", Signal Processing (Elsevier). Volume 90, Issue 4, April 2010, Pages 1300-1312.

- J34. G.A. Ropokis, A.A. Rontogiannis, P. Mathiopoulos, and K. Berberidis, "An Exact Performance Analysis of MRC/OSTBC over Generalized Fading Channels". IEEE Transactions on Communications. Vol.58, No.9, September 2010, pp. 2486 – 2492.
- J35. G.C. Alexandropoulos, A. Papadogiannis, and K. Berberidis, "Performance Analysis of Cooperative Networks with Relay Selection over Nakagami- $m$  Fading Channels". IEEE Signal Processing Letters. Vol. 17, no. 5, May 2010, pp. 441-444.
- J36. A. Lalos, A. Rontogiannis and K. Berberidis, "Frequency domain channel estimation for cooperative communication networks". IEEE Transactions on Signal Processing, Vol. 58, No.6, June 2010, pp. 3400-3405.
- J37. D. Briassoulis et al, "An experimental helical-tubular photobioreactor for continuous production of Nannochloropsis sp.", Bioresource Technology (ELSEVIER). 101 (2010), pp. 6768–6777.
- J38. G.A. Ropokis, A.A. Rontogiannis and K. Berberidis, "BER Performance Analysis of Cooperative DaF Relay Networks and a New Optimal DaF Strategy", IEEE Transactions on Wireless Communications, Vol.10, Issue 4, pp. 1044-49, April 2011.
- J39. I. Krikidis, H.A. Suraweera, Sheng Yang and K. Berberidis, "Full-Duplex Relaying over Block Fading Channel: A Diversity Perspective". IEEE Transactions on Wireless Communications. Vol.11, Issue 12, pp.4524-4535, Dec.2012.
- J40. E. Vlachos, A.S. Lalos and K. Berberidis, "Stochastic Gradient Pursuit for Adaptive Equalization of Sparse Multipath Channels". IEEE Journal on Emerging and Selected Topics in Circuits and Systems. Vol.2, Issue 3, pp.413-423, Sept. 2012.
- J41. C.G. Tsinos and K. Berberidis, "Blind Opportunistic Interference Alignment in MIMO Cognitive Radio Systems", IEEE Journal on Emerging and Selected Topics in Circuits and Systems. Vol.3, Issue 4, pp.626-639, Dec. 2013.
- J42. N. Bogdanovic, D. Ampeliotis, K. Berberidis, F. Casciati and Jorge Plata-Chaves, "Spatio-Temporal Protocol for Power-efficient Acquisition Wireless Sensors based SHM", Journal on Smart Structures and Systems. Vol. 14, No. 1, July 2014, pp.1-16.
- J43. N. Bogdanovic, J. Plata-Chaves and K. Berberidis, 'Distributed Incremental-Based LMS for Node-Specific Adaptive Parameter Estimation', IEEE Transactions on Signal Processing. Vol.62, Issue 20, Oct. 2014, pp. 5382 – 5397.
- J44. I. Tzelatis and K. Berberidis, 'Cross-Tier Interference Management Schemes in Cognitive Heterogeneous Networks', EURASIP Journal on Wireless Communications and Networking. Sept. 2014, pp.1-10.
- J45. C. Tsinos and K. Berberidis, 'Decentralized Adaptive Eigenvalue-Based Spectrum Sensing for Multi-antenna Cognitive Radio Systems', IEEE Transactions on Wireless Communications. Vol.14, No.3, March 2015, pp.1703-1715.
- J46. S. Karachontzitis, S. Timotheou, I. Krikidis and Kostas Berberidis, "Security-aware Max-Min Resource Allocation in Multiuser OFDMA Downlink", IEEE Transaction on Information Forensics and Security. Vol.10, No.3, March 2015, pp.529-542.
- J47. C. Tsinos and K. Berberidis, 'A Cooperative Uplink Transmission Technique with Improved Diversity-Multiplexing Tradeoff', IEEE Transactions on Vehicular Technology. Vol.64, No.7, July 2015, pp.2883-2896.
- J48. J. Plata-Chaves, N. Bogdanovic, K. Berberidis, "Distributed Diffusion-Based LMS for Node-Specific Adaptive Parameter Estimation", IEEE Transactions on Signal Processing. Vol.63, No.13, July 2015, pp.3448-3460.

- J49. S. Timotheou, I. Krikidis, S. Karachontzitis, K. Berberidis, 'Spatial Domain Simultaneous Information and Energy Transfer for MIMO Channels' IEEE Transactions on Wireless Communications. Vol.14, No.8, Aug. 2015, pp.4115-4128.
- J50. E. Vlachos, A. Lalos and K. Berberidis, "Low-complexity OSIC equalization for OFDM-based Vehicular Communications". IEEE Transactions on Vehicular Technology, Volume: 66, Issue: 5, May 2017, pp.3765 – 3776.
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