

**Panagiotis Tsakalides**  
[www.ics.forth.gr/~tsakalid](http://www.ics.forth.gr/~tsakalid)  
[www.spl.edu.gr](http://www.spl.edu.gr)

### Executive Summary

[Panagiotis Tsakalides](#) (b. 1967) obtained the Diploma in Electrical Engineering from the Aristotle University of Thessaloniki, Greece, in 1990, having received scholarships from the State Scholarships Foundation of Greece (IKY) for academic excellence throughout his undergraduate studies. In August 1990, he moved to Los Angeles for graduate studies with scholarships from the Fulbright and Bodossakis Foundations. He received the M.Sc. degree in Computer Engineering and the PhD degree in Electrical Engineering from the University of Southern California (USC) in 1991 and 1995, respectively. From 1996 to 1999, he was a Research Assistant Professor with the Signal & Image Processing Institute at USC and he consulted for the US Navy and Air Force.

After almost 10 years in the US, he returned to Greece in the Department of Electrical Engineering, University of Patras, in 1999. In September 2002, he joined the Computer Science Department at the University of Crete as an Associate Professor and FORTH-ICS as a Researcher. In March 2010, he was promoted to a Professor. Currently, he is the Vice Rector for Finance at the University of Crete and the Head of the Signal Processing Laboratory at FORTH-ICS.

His research interests lie in the field of statistical signal processing with emphasis in non-Gaussian estimation and detection theory, sparse representations, and applications in wireless sensor networks, remote sensing, audio, imaging, and multimedia systems. He has co-authored over 150 technical publications in these areas, including 35 papers in international peer-reviewed journals, 2 patents, 5 book chapters, 120+ papers in international conferences, and 6 articles in specialized research review magazines. According to Google Scholar, he has more than 3600 citations, an h-index of 27, and an i10-index of 57.

Prof. Tsakalides has a strong commitment in inspiring young researchers, having supervised 7 PhD and 22 M.Sc. students, as well as 8 postdoctoral fellows. At FORTH-ICS, Prof. Tsakalides has been the founder and head of the [Signal Processing Laboratory](#) (SPL). SPL was established in 2011 as a natural consequence of a growing research and innovation activity that started in 2002. This group is one of the first internationally to have applied the novel ideas of sinusoidal modeling, multichannel coding, compressed sensing, and matrix completion to the fields of multimedia signal processing, wireless sensor networks, positioning, and remote sensing. It is now a 20 people strong laboratory with a thriving presence in H2020 European projects.

During the last decade, Prof. Tsakalides has been committed in maintaining several active international collaborations with both academic and industrial partners across Europe, the US, and Asia. Most recent ones involve CEA/Saclay, France; the University of Agder, Norway; University of Valencia, Spain; SAGEM, France; TWS, Italy; Cidana, China; IMEC, Belgium; Planetek, Italy. In 2008, he was on an 8-month sabbatical leave at the Department of Electrical Engineering, USC, US, and he has had various 2-month stays at the University of Valencia (2009, 2011).

He has an extended experience of transferring research and interacting with the industry, which he first obtained in the 90s during his involvement in projects related to the Small Business Innovation Research and Technology Transfer (SBIR & STTR) programs of the US Government. Prof. Tsakalides has been the project coordinator or co-PI in 7 European Commission and 9 national projects totaling more than 4.2 M€ in actual funding for the University of Crete and FORTH-ICS. Recently, he was the coordinator of the 1.3 M€ FP7 MC-IAPP "[CS-ORION](#)" project (2010-2014) conducting research on compressed sensing for remote imaging in aerial and terrestrial surveillance. This project has been tagged as a success story by the European Commission. Currently, he is the coordinator of the 1 M€ H2020 COMPET project "[PHySIS](#)" conducting research on sparse signal processing technologies for hyperspectral systems.

Prof. Tsakalides possesses an extensive and successful administrative experience. In March 2017, he was appointed the Vice Rector for Finance and Research at the University of Crete. He served two two-year terms as the Chairman of the Department of Computer Science at the University of Crete. During his first term in 2004-06, he successfully saw the Department grow from 18 faculty members to 23. In his second term, his efforts have been focusing on promoting the extrovert character of the Department via collaborations with the industry, the organization of open days for students and the society, and the formation of the CSD alumni association. From 2010 to 2017, he served as the Chairman of the Technical Council of the University of Crete. During these years, the council played an instrumental role in overseeing and facilitating the conclusion of a major construction phase in the University campuses of Heraklion and Rethymnon. Most notably, in 2013 the new buildings of the Mathematics and CS Departments were completed. As a result, the School of Sciences is now located in a single modern campus. At FORTH, P. Tsakalides was a member of the Scientific Council of ICS between 2010-16, contributing to the research and development strategic planning of the Institute.

## PERSONAL COORDINATES

Place of birth Serres, Greece  
Date of birth December 15, 1967  
Marital Status Married to [Yiota Poirazi](#),  
father of Christos, Andreas, and Melina-Polytimi.

Work Address Department of Computer Science Institute of Computer Science (ICS)  
University of Crete Foundation for Research & Technology-Hellas (FORTH)  
P.O. Box 2208 N. Plastira 100  
GR-714 09 Heraklion, Crete GR-700 13 Heraklion, Crete  
Greece Greece

Phone: +30 2810 393.587 Phone: +30 2810 391.730  
Fax: +30 2810 393.501 Fax: +30 2810 391.601  
E-mail: [tsakalid@csd.uoc.gr](mailto:tsakalid@csd.uoc.gr) E-mail: [tsakalid@ics.forth.gr](mailto:tsakalid@ics.forth.gr)  
URL: <http://www.csd.uoc.gr> URL: <http://www.ics.forth/~tsakalid>

## EDUCATION

1990 - 1995 **University of Southern California, Los Angeles, California, USA**

- Ph.D., Department of Electrical Engineering, December 1995  
Thesis: *Array signal processing with alpha-stable distributions – C. L. (Max) Nikias advisor*
- M.Sc., Computer Engineering, Department of Electrical Engineering, December 1991

1985 - 1990 **Aristotelian University of Thessaloniki, Greece**

- Diploma, Department of Electrical Engineering, June 1990  
Thesis: *Digital filters for color image processing – I. Pitas advisor*

## ACADEMIC & PROFESSIONAL CAREER

11/2002 – present **University of Crete, Department of Computer Science – Heraklion, Greece**

- 3/2010 - present: Professor
- 11/2002 - 2/2010: Associate Professor
- 9/2004 - 8/2006, 9/2014 – 8/2016: Department Chairman
- 9/2006 - 8/2008, 9/2010 – 8/2014, 9/2016 – present: Department Associate Chairman

09/2002 – present **Foundation for Research & Technology-Hellas, Institute of Computer Science (FORTH-ICS) – Crete, Greece**  
Head, Signal Processing Laboratory (SPL)

01/2002 – 09/2002 **University of Thessalia – Volos, Greece**  
Visiting Assistant Professor of Computer and Communications Engineering

09/2000 – 03/2002 **Greek Army – Athens, Xanthi, Greece**  
18-months military service as a sergeant, Telecommunications Division

01/1999 – 12/2001 **University of Patras - Patras, Greece**  
Visiting Assistant Professor of Electrical Engineering

01/1996 – 12/1998 **University of Southern California – Los Angeles, California, USA**  
Research Assistant Professor of Electrical Engineering

09/1996 – 12/1998 **MultiSpec Corporation – Huntington Beach, California, USA**  
Advanced Systems Engineer

09/1991 – 12/1995 **University of Southern California – Los Angeles, California, USA**  
Graduate Research Assistant

## RESEARCH FUNDING

Since 2003, P. Tsakalides has been the **project coordinator** or the **PI** for FORTH/UoC in 7 European Commission and 9 national projects totaling more than 4,2M€ in actual funding for FORTH-ICS and the University of Crete.

- 03/2015 – 02/2017 “[PHYSIS: Sparse Signal Processing Technologies for HyperSpectral Imaging Systems](#),” European Commission, H2020 Framework Programme, H2020-LEIT-Space-Competitiveness of the European Space Sector-2014, Topic: COMPET-06-2014 Bottom-up space technologies at low TRL total funding: €1.028.000, FORTH-ICS funding: **€240,000**.
- 10/2015 – 09/2018 “[DEDALE: Data Learning on Manifolds and Future Challenges](#),” European Commission, H2020 Framework Programme, H2020-FET-OPEN-2014, total cost/funding: €2.702.398, FORTH-ICS cost/funding: **€560,000**. PI for FORTH-ICS: P. Tsakalides, Project coordinator: J.L. Starck (CEA, France).
- 07/2013 – 10/2015 “[SENSE: Audio-Visual Sensor Networks for Densely Sampling and Replaying Events](#),” Greek Department of Education, total funding: €616,000, FORTH-ICS funding: **€180,000**. Project Coordinator: P. Tsakalides, PI: A. Mouchtaris.
- 04/2012 – 10/2015 “[MusiNet: Comprehensive Design and Implementation of a Networked Music Performance System](#),” Greek Department of Education, Thales action, total funding: €600,000, UoC funding: **€150,000**. Project Coordinator: P. Tsakalides, PI: A. Mouchtaris.
- 10/2011 – 12/2014 “[HYDROBIONETS: Autonomous Control of Large-scale Water Treatment Plants based on Self-Organized Wireless BioMEM Sensor and Actuator Networks](#),” European Commission, FP7 STREP ICT project #287613, total cost/funding: €3,178,914/€2,350,000, FORTH-ICS cost/funding: **€637,518/€478,513**, PI for FORTH-ICS: P. Tsakalides, Project coordinator: B. Beferull-Lozano (UVEG, Spain).
- 09/2010 – 08/2014 “[CS-ORION: Compressed Sensing for Remote Imaging in Aerial and Terrestrial Surveillance](#),” European Commission, 7th Framework Programme, Marie Curie Industry-Academia Partnerships and Pathways (IAPP) Grant, total funding: €1,292,270, FORTH-ICS funding: **€600,000**. Project coordinator: P. Tsakalides, collaborators: JL Starck (CEA/Saclay, France), M. Bousquet (SAGEM Defense Securite, France), and D. Tsigos (VTrip, Greece).
- 05/2011 – 11/2013 “[APLOE: Applied Physical Layer Orthogonal Frequency Division Multiplexing Encryption](#),” European Commission, 7th Framework Programme, Marie Curie International Outgoing Fellowships (IOF) Grant, **€245,448**. Project coordinator: P. Tsakalides, Scientist: A. Chorti, co-PIs: V.H. Poor, A. Traganitis.
- 09/2006 – 08/2010 “[Collaborative Signal Processing for Efficient Wireless Sensor Networks](#),” European Commission, 6th Framework Programme, Marie Curie Transfer of Knowledge (ToK-DEV), **€1,256,423**. Project coordinator: P. Tsakalides, collaborators: Baltasar Beferull-Lozano (University of Valencia, Spain) and C. Kyriakakis (University of Southern California, USA).
- 03/2006 – 02/2008 “[User-Centric Enhancement of Speech in Adverse Noise Conditions with Applications to Speech Communication Systems](#),” Greek General Secretariat for Research and Technology (GSRT), **€60,000**. Project coordinator: P. Tsakalides, co-PIs: A. Mouchtaris (FORTH-ICS) and J. Van der Spiegel (University of Pennsylvania, USA).
- 10/2005 – 09/2008 “[Wireless Sensor Networks: Theory and Applications in Structural Health Monitoring](#),” GSRT & Themeliodomi S.A., **€135,000**. Project coordinator: P. Tsakalides.
- 10/2005 – 09/2007 “[Multiresolution Algorithms for Spaceborne Synthetic Aperture Radar \(SAR\) Systems](#),” GSRT & British Council, **€11,740**. Project coordinator: P. Tsakalides, co-PI: A. Achim (University of Bristol, UK).
- 03/2005 – 02/2007 “[Immersive Audio Rendering and Transmission Technologies](#),” European Commission, 6th Framework Programme, **€80,000**. Project coordinator: P. Tsakalides, co-PI: A. Mouchtaris (FORTH-ICS).
- 03/2004 – 12/2007 “[Multichannel Audio Compression and Coding](#),” Greek Department of Education, **€50,000**. Project coordinator: P. Tsakalides.
- 08/2003 – 08/2005 “[Multicarrier Space-Time Coding for Multichannel Digital Audio Transmission](#),” GSRT, **€60,000**. Project coordinator: P. Tsakalides, co-PI: C. Kyriakakis (U. of Southern California, USA).
- 06/2004 – 05/2006 “[3-D Audio Synthesis and Transmission through Wireless Networks for Teleconferencing and Telepresence Applications](#),” GSRT and FORTHnet S.A., **€91,500**. Project coordinator: P. Tsakalides.
- 06/2003 – 12/2004 “[Development of a SAR Image Autofocusing Module for Environmental Monitoring with Remote Sensing](#),” GSRT, **€44,000**. Project coordinator: P. Tsakalides.

## ADMINISTRATIVE EXPERIENCE

|  |  |
|--|--|
| 03/2017 – present  | Vice Rector for Finance, University of Crete   |
| 10/2010 – 02/2017  | Chairman, Technical Council of the University of Crete   |
| 09/2004 – 08/2006 &<br>09/2014 – 08/2016   | Chairman, Department of Computer Science, University of Crete  |
| 09/2006 – 08/2008 &<br>09/2010 – 08/2014 &<br>09/2016 – 02/2017                        | Associate Chairman, Department of Computer Science, University of Crete  |
| 10/2011 – present  | Head, Signal Processing Laboratory, FORTH-ICS  |
| 07/2010 – 08/2016  | Member, Scientific Council of FORTH-ICS  |
| 05/2013 – 02/2017  | Associate member, Board of Directors of ERCIM (the European Research Consortium for Informatics and Mathematics) |
| 09/2004 – 08/2006  | Member of the Senate, University of Crete  |
| 07/2003 – 10/2004 &<br>09/2008 – 08/2010 &<br>09/2012 – 08/2014 &<br>09/2016 – present | Member, Graduate Studies Committee, Department of Computer Science, Univ. of Crete                               |

## TEACHING EXPERIENCE

### Undergraduate courses

*Probability Theory* (Fall 2002-2012, 2014-16)  
*Applied Random Processes* (Spring 2005-2012, Fall 2013, Spring 2016)  
*Pattern Recognition* (Spring 2003-2004)  
*Digital Communications* (Fall 2003)  
*Signals and Systems* (Spring 2013, 2002, 2000)

### Graduate courses

*Wireless Sensor Networks* (Spring 2015-16)  
*Adaptive Signal Processing* (Spring 2004-2014, Spring 1999-2000, Fall 1997-1998)  
*Array Signal Processing* (Spring 1997)  
*Modern Spectral Analysis* (Spring 1996)  
*Current Trends in Adaptive and Multisensor Signal Processing: Object Detection, Classification, Direction Finding, and Data Fusion* (short course, Summer 1998)

## JUNIOR RESEARCHERS ADVISOR

### Postdoctoral fellows

1. Athanasia Panousopoulou. ‘Networking and implementation aspects of WSNs for sensing and control of industrial plants’ 06/2013 – present.
2. Grigorios Tsagkatakis. ‘Sparse representations for resource constrained remote imaging systems’ 08/2011 – present.
3. Arsenia Chorti. ‘Applied physical layer orthogonal frequency division multiplexing encryption’ 05/2011 – 11/2013. Now a Lecturer at the University of Essex, UK.
4. Alexandros Friagkiadakis, ‘Intrusion detection for wireless networks using compressed sensing’ 10/2011 – 11/2012. Now with the Telecommunications and Networks Laboratory, FORTH-ICS, GR.
5. Vishwas Lakkundi. ‘Compressive sensing based ultra-wideband communication systems’ 02/2009 – 03/2011. Now a Sr. Staff Engineer/Technical Architect at Altiux Innovations, India.
6. Anthony Griffin. ‘Compressive sensing methods for multichannel audio acquisition, representation, and transmission’ 01/2007 – 02/2009. Now a Lecturer at Auckland University of Technology, NZ.
7. Toni Hirvonen. ‘Perceptual and modeling studies on spatial sound’ 10/2008 – 03/2010. Now a Staff Researcher at Dolby, Stockholm, Sweden.
8. Athanasios Mouchtaris. ‘Immersive audio rendering and transmission technologies’ 09/2004 – 06/2008. Now an Associate Professor at the University of Crete.

**Doctoral students**

1. Anastasia Aidini. "1-bit tensor completion," Feb. 2017 – present.
2. Michalis Giannopoulos. "Tensor decompositions for signal processing multi-sensor applications," Sept. 2016 – present.
3. Anastasia Pentari. "High resolution diffusion weighted magnetic resonance imaging based on sparsity," Sept. 2016 – present.
4. Konstantina Fotiadou. "Remote sensing and hyperspectral imaging using sparsity models," 10/2014 - present.
5. Sofia Nikitaki. "Location sensing via sparse and low rank signal models" 10/2009 - 06/2014. Now a Research Scientist at NEC Research Europe Ltd, Frankfurt, Germany.
6. George Tzagkarakis. "Bayesian compressed sensing using alpha-stable distributions" 01/2005 - 11/2009. Now a Researcher at EONOS Investment Technologies, Paris, France.
7. Kallirroe Flouri. "Distributed algorithms for support vector machine training in wireless sensor networks," 09/2006 - 11/2009. Now an Analytics Solutions Engineer at Swiss Re, Zürich, Switzerland.

**Master's students**

1. Manthos Stivaktakis. "Deep learning based astrophysical signal processing," 2/2017 – present.
2. Maria Aspri. "Computing architectures for distributed machine learning and intelligence over IoT," 2/2017 – present.
3. Areti Zervou. "Motif discovery in human activity recognition," 2/2016 – present.
4. Irimi Troulinou. "Graph signal processing techniques for analyzing neuronal networks," 9/2015 – present.
5. Katerina Karagiannaki. "Feature selection architectures for human activity recognition," 09/2014 – 06/2017.
6. Sofia Savvaki. "Novel techniques for the estimation of multi-modal missing data in wireless sensor networks," 09/2013 – 10/2016.
7. Kostas Karalas. "Multi-label land cover classification with remotely sensed data," 02/2014 – 11/2015.
8. Konstantina Fotiadou. "Image super-resolution and low light image enhancement via sparse representations," 03/2012 – 10/2014.
9. Pavlos Charalampidis. "Compressed sensing for image and video coding and transmission," 09/2010 – 7/2013.
10. Dimitra Emmanouilidou. "Bayesian compressive sensing for magnetic resonance imaging," 01/2009 – 11/2010.
11. Tanish Agrawal. "Compressed sensing for OFDM-based ultra wideband systems," 09/2009 – 09/2010.
12. Aikaterini Gkirtzou. "Mature miRNA identification via the use of a naive Bayes classifier," 09/2006 – 2/2009.
13. Christos Tzagkarakis. "Sinusoidal modeling for multichannel audio coding," 09/2005 – 09/2007.
14. Hara Stefanou. "DNA microarray image enhancement in a multiresolution framework," 09/2005 – 08/2007.
15. Kyriaki Karadimou. "Multichannel audio coding using the multiband source/filter model," 09/2004 – 11/2005.
16. Anastasia Evangelatou. "DVB-RCT physical layer and implementation of the frame adaptation unit," 01/2004 – 03/2005.
17. George Tzagkarakis. "Content-based image retrieval via alpha-stable modeling of texture information," 01/2003 – 12/2004.
18. Alexia Briassouli. "DCT-domain watermark detection using alpha-stable models" 01/2000 – 09/2000.
19. Ioannis Dages. "Non-Linear Blind Equalization of Noisy Communication Channels" 02/2000 – 05/2001.
20. Filippo Trinci. "Constant False Alarm Rate (CFAR) Radar Detectors in Heavy-Tailed Clutter" 09/1997 – 12/1998.
21. Panagiotis Reveliotis. "Rate-Distortion Theory in the Alpha-Stable Framework" 09/1996 – 12/1997.
22. Raffaele Raspanti. "Space-Time Adaptive Processing for Airborne Radar in Impulsive Clutter Environments" 02/1996 – 12/1996.

### Other students advising

1. Has supervised over 60 undergraduate diploma theses over the past 10 years at the University of Crete
2. Has been a member of the PhD examination committee of 20+ doctoral candidates since 2002

### EXPERTISE AND GENERAL RESEARCH INTERESTS

1. Digital Signal Processing:
  - Compressed sensing, sparse representations, and applications
  - Alpha-stable processes and applications
  - SAR, radar, and sonar signal processing
  - Hyperspectral imaging systems
  - Biomedical image and signal processing
2. Information Theory/Multimedia Signal Processing:
  - Digital watermarking and data hiding techniques
  - Data quantization and coding
  - Wavelet-based denoising and coding
  - Multichannel audio processing
3. Telecommunication Systems:
  - Signal processing for wireless sensor networks
  - Array antennas
  - Non-linear methods for channel equalization

### AWARDS/FELLOWSHIPS

- February 2016      **Best Paper Award** for the paper “Non-negative Matrix Completion for the Enhancement of Snapshot Mosaic Multispectral Imagery,” (G. Tsagkatakis, B. Geelen, and M. Jayapala co-authors) in *Proc. 2016 IS&T International Symposium on Electronic Imaging, Image Sensors and Imaging Systems*, San Francisco, CA, February 15-19, 2016.
- October 2013      **Best Paper Award** for the paper “The secrecy capacity of block fading multiuser wireless networks,” (A. Chorti, K. Papadaki, and H. V. Poor co-authors) in *Proc. International Conference on Advanced Technologies for Communications (ATC '13)*, Hochiminh City, Vietnam.
- October 2002      **A. H. Reeve Best Paper Award** by the Institute of Electrical Engineers (IEE) for the paper “Scalar quantisation of heavy-tailed signals,” (P. Reveliotis, and C. L. Nikias co-authors) *IEE Proceedings – Vision, Image and Signal Processing*, vol. 147, no. 5, pp. 475-484, October 2000.
- 1990 - 1992      **Fulbright Foundation** scholarship for graduate studies in the US
- 1990 - 1993      **Bodossakis Foundation** scholarship for graduate studies in the US
- 1990 - 1991      **Triantafyllou Foundation** scholarship for graduate studies in the US
- 1985 - 1990      **National Greek Fellowship** for academic excellence throughout undergraduate studies
- 1985              **National Greek Fellowship** for ranking first in the University entry national exam for the Department of Electrical Engineering, University of Thessaloniki

### PROFESSIONAL ACTIVITIES

- **Expert Evaluator**, European Commission, H2020 Framework Programme, “H2020-WIDESPREAD-04-2017-TeamingPhase1.”
- **Publicity Chair**, 25<sup>th</sup> *European Signal Processing Conference (EUSIPCO)*, Kos Island, Greece, August 28 - September 2, 2017.
- **Local Organizing Committee Member**, *IEEE Conference on Imaging Systems and Techniques*, Chania, Greece, October 2016.
- **Local Organizing Committee Member**, *International Symposium on Statistical Challenges in 21<sup>st</sup> Century Cosmology (SCCC21)*, in conjunction with the Astronomical Data Analysis Summer School, Chania, Greece, May 22-27, 2016.

- **Chair**, *2<sup>nd</sup> International Workshop on Cyber-Physical Systems for Smart Water Networks (CySWater)*, in conjunction with Cyber-Physical Systems (CPS) Week 2016, Vienna, Austria, April 11, 2016.
- **TPC Co-Chair**, *Workshop on Distributed and Cooperative Visual Representation and Analysis*, in conjunction with the 2015 IEEE International Conference on Multimedia and Expo (ICME 2015), Torino, Italy, June 29 – July 3, 2015.
- **Chair**, *1st International Workshop on Cyber-Physical Systems for Smart Water Networks (CySWater)*, in conjunction with CPS Week 2015, Seattle, WA, USA, April 13, 2015.
- **Member, Technical Program Committee** *European Signal Processing Conference (EUSIPCO)* during the years 2008-14.
- **Member, Technical Program Committee**, *International Conference on Digital Signal Processing (DSP)* during the years 2009 and 2011.
- **Member, Technical Program Committee**, *KES International Conference on Intelligent Interactive Multimedia Systems and Services (KES IIMSS)* during the years 2008, 2014, 2015.
- **Special Session Organizer**, *18<sup>th</sup> International Conference on Digital Signal Processing (DSP 2013)*, Compressive Sensing and Matrix Completion: Theory, and Applications in Signal and Image Processing, Santorini, Greece, July 1-3, 2013.
- **Member of the Organising and Program Committees**, *5<sup>th</sup> Astronomical Data Analysis (ADA V) Conference*, Hersonissos, Crete, Greece, May 7-9, 2008.
- **Chairman of the Organizing and Program Committees**, *8<sup>th</sup> Biannual FORTH retreat*, October 12-13, 2007.
- **Member of the Organising and Program Committees, Session Chair** (Adaptive Signal Processing), *6<sup>th</sup> IEEE International Conference on Electronics, Circuits, and Systems*, Paphos, Cyprus, September 1999.
- **Session Chair** (Signal Processing for Multimedia Communications), *10<sup>th</sup> Tyrrhenian Workshop on Digital Communications*, Ischia, Italy, September 1998.
- **Tutorial Speaker**, Higher-Order Statistics Workshop, Banff, Canada, Title: “Alpha-Stable Distributions: A New Statistical Signal Processing Framework,” July 1997.
- **Member of the Selection Committee**, Fulbright Foundation, May 2000.
- **Associate Editor**, *Journal of Circuits, Systems and Computers*, 2001-2008.
- **Reviewer** for: the *IEEE Trans. on Signal Processing*, *IEEE Trans. on Vehicular Technology*, *IEEE Signal Processing Letters*, *IEEE Communications Letters*, *IEEE Proceedings on Radar, Sonar and Navigation*, *Signal Processing, Multidimensional Systems and Signal Processing*, *Journal of Circuits, Systems and Computers*, *International Journal of Adaptive Control and Signal Processing*.
- **Member**, Institute of Electrical and Electronic Engineers (IEEE)
- **Member**, Technical Chamber of Greece (TEE)

## INVITED LECTURES

1. “[Intelligent Signal Processing and Learning in Imaging](#),” presented to the Department of Electrical and Electronic Engineering, University of Bristol, United Kingdom, November 18, 2014.
2. “[Compressed Sensing and its Applications in Video Coding and Classification](#),” presented to Cidana Inc., Shanghai, China, April 5, 2012.
3. “[Compressed Sensing and its Applications in Positioning, Audio Coding, and Video Compression](#),” presented to the Inst. de Robótica y de Tecnologías de la Información & las Comunicaciones (IRTIC), *Universidad de Valencia, Spain*, July 28, 2011.
4. “[Bayesian Estimation, Classification, and Denoising Based on Alpha-Stable Statistical Modeling](#)” *5th Astronomical Data Analysis (ADA V) Conference, Hersonissos Crete*, May 8, 2008.
5. “Alpha-Stable Distributions: Theory & Applications,” presented to the *Non-Linear Speech Processing Workshop, Heraklion, Crete, Greece*, October 20, 2005.
6. “[Sensing and Actuation: Merging the Physical and Virtual Worlds with Wireless Sensor Networks](#),” presented to the *Heraklion Soroptimist Chapter, Heraklion, Crete, Greece*, May 7, 2004.
7. “Modern Remote Sensing Techniques for Environmental Monitoring,” presented to the Computer Science Department, *Agricultural University of Athens, Greece*, December 23, 2002.
8. “[Novel Bayesian Multiscale Methods for Speckle Removal in SAR Images](#),” presented to the Department of Cybernetics, *University of Reading, Reading, United Kingdom*, November 8, 2002.
9. “[Hidden Messages in Heavy-Tails: DCT-Domain Watermark Detection Using Alpha-Stable Models](#),” presented to the Statistics Department, *Athens University of Economics and Business, Greece*, November 22, 2000.
10. “Stable Processes and their Application in Communication, Radar, and Audio System Design,” presented to the Department of Electrical and Computer Engineering, *University of California at Irvine, CA*, January 10, 2000.

11. “Deviating from the Gaussian Law: Alpha-Stable Processes and their Applications in Signal Processing,” presented to the Department of Electrical and Computer Engineering, *University of Patras, Greece*, November 25, 1999.
12. “Alpha-Stable Processes and their Applications in Communication System Design,” presented to the Department of Mathematics, *University of Thessaloniki, Greece*, November 9, 1999.
13. “Adaptive Space-Time Signal Processing for Telecommunication and Radar Systems,” presented to the Department of Mathematics, *University of Ioannina, Greece*, September 30, 1999.
14. “Array Signal Processors for Mobile Communication Systems,” presented to the Department of Computer Science, *University of Crete, Greece*, February 25, 1999.
15. “Alpha-Stable Distributions: A New Statistical Signal Processing Framework,” plenary talk at the *Higher-Order Statistics Workshop, Banff, Canada*, July 22, 1997.
16. “Signal Processing with Alpha-Stable Distributions: Current and Future Trends,” presented to the Department of Electrical Engineering, *Polytechnic University, Brooklyn, NY*, March 10, 1997.
17. “New Results in Non-Stationary Signal Processing,” presented to the Department of Electrical and Computer Engineering, *University of Alberta, Edmonton, Canada*, March 7, 1997.
18. “Applications of Alpha-Stable Theory in Engineering: Space-Time Adaptive Processing in Severe Radar Clutter,” presented to the Department of Statistics and Applied Mathematics, *University of California at Santa Barbara, CA*, December 3, 1996.
19. “Robust Methods for Submarine Communications with Alpha-Stable Distributions,” presented at the *Workshop on New Techniques for Radio Communications and Wireless Networks, Naval Command, Control and Ocean Surveillance Center, RDT&E Division, San Diego, CA*, September 11, 1996.
20. “Advanced Signal Processing Methods for Radar Systems,” presented at the *Litton Corporate Wide Wavelet Seminar, Litton Applied Technology, San Jose, CA*, July 10, 1996.
21. “Multidisciplinary Research on Advanced, High-Speed, Adaptive Signal Processing for Radar Sensors,” presented at the *Space-Time Adaptive Processing University Initiative Workshop, Rome Laboratory, Rome, NY*, June 13, 1996.
22. “Applications of Lower-Order Statistics in Radar Array Signal Processing,” presented to the Department of Electrical Engineering, *University of Virginia, Charlottesville, VA*, March 18, 1996.
23. “Array Signal Processing with Alpha-Stable Distributions,” presented at the *Stable Time Series Workshop, University of California at Santa Barbara, CA*, December 3-4, 1995.
24. “Advanced Acoustic Signal Detection and Localization with Lower-Order Statistics,” presented at the *130th Meeting of the Acoustical Society of America, St. Louis, MO*, November 30, 1995.
25. “Robust Statistical Signal Processing with Alpha-Stable Distributions and Fractional Lower-Order Moments,” presented to the Department of Electrical Engineering, *University of Delaware, Newark, DE*, November 27, 1995.

## PUBLICATIONS

[Google citation profile](#)

[Scopus citation overview](#)

### A. PHD THESIS

1. **P. Tsakalides**, “[Array Signal Processing with Alpha-Stable Distributions](#),” University of Southern California, Los Angeles, California, December 1995.

### B. BOOK CHAPTERS

1. G. Tzagkarakis, G. Tsagkatakis, A. Panousopoulou, D. Alonso, E. Celada, C. Asensio, **P. Tsakalides**, and B. B. Lozano, “[Signal and Data Processing Techniques for Industrial Cyber-Physical Systems](#),” in *Cyber Physical Systems: From Theory to Practice*, D.B. Rawat, J. Rodrigues, and I. Stojmenovic Eds., CRC Press, ISBN 9781482263329, 2015.
2. A. Mouchtaris, C. Tzagkarakis, and **P. Tsakalides**, “[Low Bitrate Coding of Spot Audio Signals for Interactive and Immersive Audio Applications](#),” in *New Directions in Intelligent Interactive Multimedia*, G. A. Tsihrintzis and L. C. Jain Eds., Springer Studies in Computational Intelligence, ISBN 978-3-540-68126-7, 2008, pp. 155-164.
3. A. Mouchtaris and **P. Tsakalides**, “[Multichannel Audio Coding for Multimedia Services in Intelligent Environments](#),” in *Multimedia Interactive Services in Intelligent Environments*, G. A. Tsihrintzis and L. C. Jain Eds., Springer Studies in Computational Intelligence, ISBN 978-3-540-78491-3, Germany, 2008, pp. 103-148.



4. **P. Tsakalides** and C. L. Nikias, "Deviation from Normality in Statistical Signal Processing: Parameter Estimation with Alpha-Stable Distributions," in *A Practical Guide to Heavy Tails: Statistical Techniques and Applications*, R. Adler, R. Feldman, and M.S. Taqqu Eds., Boston: Birkhauser, ISBN 0-8176-3951-9, 1998, pp. 379-404.
5. **P. Tsakalides** and C. L. Nikias, "Mine Detection with the Cauchy Beamforming Signal Processing Approach," in *Detection and Remediation Technologies for Mines and Minelike Targets*, A. C. Dubey, R. L. Barnard, C. J. Lowe, and J. E. McFee Eds., Bellingham: The Intern. Society for Optical Eng., ISBN 0-8194-2146-4, 1996, pp. 137-148.

### C. PATENTS

1. A. Mouchtaris and P. Tsakalides, "[Apparatuses, Methods, and Systems for Audio Processing and Transmission.](#)" U.S. Patent No. 9,111,525, August 18, 2015.
2. A. Griffin, A. Mouchtaris and P. Tsakalides, "[Apparatuses, Methods, and Systems for Sparse Sinusoidal Audio Processing and Transmission.](#)" U.S. Patent No. 8,489,403, July 17, 2013.

### D. REFEREED JOURNAL PAPERS

1. S. Savvaki, G. Tsagkatakis, A. Panousopoulou, and **P. Tsakalides**, "[Matrix and Tensor Completion on a Human Activity Recognition Framework](#)," *IEEE Journal of Biomedical and Health Informatics*, 2017 (in press).
2. G. Tsagkatakis, B. Beferull-Lozano, and **P. Tsakalides**, "[Singular Spectrum based Matrix Completion for Time-series Recovery and Prediction](#)," *EURASIP Journal on Advances in Signal Processing*, special issue on Signal Processing for Big Data, 2016, doi: 10.1186/s13634-016-0360-0.
3. A. Panousopoulou, M. Azkune, and **P. Tsakalides**, "[Feature Selection for Performance Characterization in Multi-hop Wireless Sensor Networks](#)," *Ad Hoc Networks*, 2016, doi:10.1016/j.adhoc.2016.06.011.
4. K. Karalas, G. Tsagkatakis, M. Zervakis, and **P. Tsakalides**, "[Land Classification Using Remotely Sensed Data: Going Multi-Label](#)," *IEEE Transactions on Geoscience and Remote Sensing*, Feb. 2016, doi: 10.1109/TGRS.2016.2520203.
5. A. Alin, A. Basarab, G. Tzagkarakis, **P. Tsakalides**, and D. Kouame, "[Reconstruction of Ultrasound RF Echoes Modelled as Stable Random Variables](#)," *IEEE Transactions on Computational Imaging*, vol. 1, no. 2, pp. 86-95, August 2015, doi:10.1109/TCI.2015.2463257.
6. S. Nikitaki, G. Tsagkatakis, and **P. Tsakalides**, "[Efficient Multi-Channel Signal Strength based Localization via Matrix Completion and Bayesian Sparse Learning](#)," *IEEE Transactions on Mobile Computing*, vol. 14, no. 11, pp. 2244-2256, Nov. 2015, doi:10.1109/TMC.2015.2393864.
7. G. Tsagkatakis, A. Woiselle, G. Tzagkarakis, M. Bousquet, J. L. Starck, and **P. Tsakalides**, "[Multireturn Compressed Gated Range Imaging](#)," *Optical Engineering*, special issue on Computational Approaches to Imaging LADAR, 031106 (2015). doi:10.1117/1.OE.54.3.031106.
8. G. Tzagkarakis, A. Seliniotaki, V. Christophides, and **P. Tsakalides**, "[Uncertainty-Aware Sensor Data Management and Early Warning for Monitoring Industrial Infrastructures](#)," *International Journal of Monitoring and Surveillance Technologies Research*, 2(4), pp. 1-24, October-December 2014.
9. G. Tzagkarakis, **P. Tsakalides**, and J. L. Starck, "[Covariation-based Subspace-Augmented MUSIC for Joint Sparse Support Recovery in Impulsive Environments](#)," *Signal Processing*, vol. 93, pp. 1365-1373, May 2013.
10. D. Milioris, G. Tzagkarakis, A. Papakonstantinou, M. Papadopouli, and **P. Tsakalides**, "[Low-dimensional Signal-Strength Fingerprint-based Positioning in Wireless LANs](#)," *Ad Hoc Networks*, 2012 (doi:10.1016/j.adhoc.2011.12.006).
11. A. Griffin, T. Hirvonen, C. Tzagkarakis, A. Mouchtaris, and **P. Tsakalides**, "[Single-channel and Multi-channel Sinusoidal Audio Coding Using Compressed Sensing](#)," *IEEE Transactions on Audio, Speech and Language Processing*, vol. 19, no. 5, pp. 1382-1395, July 2011.
12. K. Gkirtzou, I. Tsamardinos, **P. Tsakalides**, and P. Poirazi, "[MatureBayes: A Probabilistic Algorithm for Identifying the Mature miRNA Within Novel Precursors](#)," *PLoS ONE* 5(8): e11843. doi:10.1371/journal.pone.0011843, August 2010.
13. C. Tzagkarakis, A. Mouchtaris, and **P. Tsakalides**, "[A Multichannel Sinusoidal Model Applied to Spot Microphone Signals for Immersive Audio](#)," *IEEE Transactions on Audio, Speech and Language Processing*, vol. 17, no. 8, pp. 1483-1497, November 2009.
14. G. Tzagkarakis, M. Papadopouli, and **P. Tsakalides**, "[Trend Forecasting based on Singular Spectrum Analysis of Traffic Workload in a Large-Scale Wireless LAN](#)," *Performance Evaluation*, vol. 66, no. 3, pp. 173-190, 2009 (doi:10.1016/j.peva.2008.10.010).
15. G. Tzagkarakis, B. Beferull-Lozano, and **P. Tsakalides**, "[Rotation-Invariant Texture Retrieval via Signature Alignment based on Steerable sub-Gaussian Modeling](#)," *IEEE Transactions on Image Processing*, vol. 17, no. 7, pp. 1212- 1225, June 2008.

16. A. Mouchtaris, K. Karadimou, and **P. Tsakalides**, "[Multiresolution Source/Filter Model for Low Bitrate Coding of Spot Microphone Signals](#)," *EURASIP Journal on Audio, Speech, and Music Processing*, vol. 2008, Article ID 624321, doi:10.1155/2008/624321, 2008.
17. G. Tzagkarakis, M. I. Taroudakis, and **P. Tsakalides**, "[A Statistical Geoacoustic Inversion Scheme Based on a Modified Radial Basis Functions Neural Network](#)," *Journal of the Acoustical Society of America*, vol. 122, no. 4, pp. 1959-1968, October 2007.
18. A. Mouchtaris, J. Van der Spiegel, P. Mueller, and **P. Tsakalides**, "[A Spectral Conversion Approach to Single Channel Speech Enhancement](#)," *IEEE Transactions on Audio, Speech and Language Processing*, vol. 15, no. 4, pp. 1180-1193, May 2007.
19. G. Tzagkarakis, B. Beferull-Lozano, and **P. Tsakalides**, "[Rotation-Invariant Texture Retrieval with Gaussianized Steerable Pyramids](#)," *IEEE Transactions on Image Processing*, vol. 15, no. 9, pp. 2702-2718, September 2006.
20. M. I. Taroudakis, G. Tzagkarakis, and **P. Tsakalides**, "[Classification of Shallow-Water Acoustic Signals via Alpha-Stable Modeling of the One-Dimensional Wavelet Coefficients](#)," *Journal of the Acoustical Society of America*, vol. 119, no. 3, pp. 1396-1405, March 2006.
21. A. Briassouli, **P. Tsakalides**, and A. Stouraitis, "[Hidden Messages in Heavy-Tails: DCT-Domain Watermark Detection Using Alpha-Stable Models](#)," *IEEE Transactions on Multimedia*, vol. 7, no. 4, pp. 700-715, August 2005.
22. M. Rupi, **P. Tsakalides**, E. Del Re, and C. L. Nikias, "[Constant Modulus Blind Equalization Based on Fractional Lower-Order Statistics](#)," *Signal Processing*, vol. 84, no. 5, pp. 881-894, May 2004.
23. A. Achim, **P. Tsakalides**, and A. Bezerianos, "[SAR Image Denoising via Bayesian Wavelet Shrinkage based on Heavy-Tailed Modeling](#)," *IEEE Transactions on Geoscience and Remote Sensing*, vol. 41, no. 8, pp. 1773-1784, August 2003.
24. **P. Tsakalides** and C. L. Nikias, "[High Resolution Autofocus Techniques for SAR Imaging based on Fractional Lower-Order Statistics](#)," *IEE Proceedings - Radar, Sonar and Navigation*, vol. 148, no. 5, pp. 267-276, October 2001.
25. A. Achim, A. Bezerianos, and **P. Tsakalides**, "[Novel Bayesian Multiscale Methods for Speckle Removal in Medical Ultrasound Images](#)," *IEEE Transactions on Medical Imaging*, vol. 20, no. 8, pp. 772-783, August 2001.
26. **P. Tsakalides**, F. Trinci, and C. L. Nikias, "[Performance Assessment of CFAR Processors in Pearson-Distributed Clutter](#)," *IEEE Transactions on Aerospace and Electronic Systems*, vol. 36, no. 4, pp. 1377-1386, October 2000.
27. **P. Tsakalides**, P. Reveliotis, and C. L. Nikias, "[Scalar Quantization of Heavy-Tailed Signals](#)," *IEE Proceedings - Vision, Image and Signal Processing*, vol. 147, no. 5, pp. 475-484, October 2000 (**best paper award**).
28. M. Rupi, **P. Tsakalides**, E. Del Re, and C. L. Nikias, "[Robust Spatial Filtering of Coherent Sources for Wireless Communications](#)," *Signal Processing*, vol. 80, no. 3, pp. 381-396, March 2000.
29. P. G. Georgiou, **P. Tsakalides**, and C. Kyriakakis, "[Alpha-Stable Modeling of Noise and Robust Time-Delay Estimation in the Presence of Impulsive Noise](#)," *IEEE Transactions on Multimedia*, vol. 1, no. 3, pp. 291-301, September 1999.
30. **P. Tsakalides**, R. Raspanti, and C. L. Nikias, "[Angle/Doppler Estimation in Heavy-Tailed Clutter Backgrounds](#)," *IEEE Transactions on Aerospace and Electronic Systems*, vol. 35, no. 2, pp. 419-436, April 1999.
31. **P. Tsakalides** and C. L. Nikias, "[Robust Space-Time Adaptive Processing \(STAP\) in Non-Gaussian Clutter Environments](#)," *IEE Proceedings - Radar, Sonar and Navigation*, vol. 146, no. 2, pp. 84-94, April 1999.
32. C. Kyriakakis, **P. Tsakalides**, and T. Holman, "[Surrounded by Sound: Acquisition and Rendering Methods for Immersive Audio](#)," *IEEE Signal Processing Magazine*, vol. 16, no. 1, pp. 55-66, January 1999.
33. **P. Tsakalides** and C. L. Nikias, "[The Robust Covariation-Based MUSIC \(ROC-MUSIC\) Algorithm for Bearing Estimation in Impulsive Noise Environments](#)," *IEEE Transactions on Signal Processing*, vol. 44, no. 7, pp. 1623-1633, July 1996.
34. **P. Tsakalides** and C. L. Nikias, "[Maximum Likelihood Localization of Sources in Noise Modeled as a Stable Process](#)," *IEEE Transactions on Signal Processing*, vol. 43, no. 11, pp. 2700-2713, November 1995.
35. I. Pitas and **P. Tsakalides**, "[Multivariate Ordering in Color Image Filtering](#)," *IEEE Transactions on Circuits and Systems for Video Technology*, vol. 1, no. 3, pp. 247-259, September 1991.

#### E. REFEREED CONFERENCE PAPERS

1. A. Panousopoulou, S. Farrens, Y. Mastorakis, J-L. Starck, and **P. Tsakalides**, "[A Distributed Learning Architecture for Big Imaging Problems in Astrophysics](#)," in *Proc. 25<sup>th</sup> European Signal Processing Conference (EUSIPCO '17)*, Kos island, Greece, August 28 – September 2, 2017.
2. K. Fotiadou, G. Tsagkatakis, B. Moraes, F. Abdalla, and **P. Tsakalides**, "[Denoising Galaxy Spectra with Coupled Dictionary Learning](#)," in *Proc. 25<sup>th</sup> European Signal Processing Conference (EUSIPCO '17)*, Kos island, Greece, August 28 – September 2, 2017.
3. E. Troullinou, G. Tsagkatakis, G. Palagina, M. Papadopoulou, S. Smirnakis, and **P. Tsakalides**, "[Dictionary Learning for Spontaneous Neural Activity Modeling](#)," in *Proc. 25<sup>th</sup> European Signal Processing Conference (EUSIPCO '17)*, Kos island, Greece, August 28 – September 2, 2017.

4. K. Fotiadou, G. Tsagkatakis, and **P. Tsakalides**, "[Multi-source Image Enhancement via Coupled Dictionary Learning](#)," in *Proc. Signal Processing with Adaptive Sparse Structured Representations Workshop (SPARS '17)*, Lisbon, Portugal, June 5-8, 2017.
5. M. Giannopoulos, S. Savvaki, G. Tsagkatakis, and **P. Tsakalides**, "[Application of Tensor and Matrix Completion on Environmental Sensing Data](#)," in *Proc. 25<sup>th</sup> European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN '17)*, Bruges, Belgium, April 26-28, 2017.
6. S. Timotheatos, G. Tsagkatakis, **P. Tsakalides** and P. Trahanias, "[Feature Extraction and Learning for RSSI based Indoor Device Localization](#)," in *Proc. 25<sup>th</sup> European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN '17)*, Bruges, Belgium, April 26-28, 2017.
7. K. Karagiannaki, A. Panousopoulou, and **P. Tsakalides**, "[An Online Feature Selection Architecture for Human Activity Recognition](#)," in *Proc. 42<sup>nd</sup> International Conference on Acoustics, Speech, and Signal Processing (ICASSP '17)*, New Orleans, LA, March 5-9, 2017.
8. K. Fotiadou, G. Tsagkatakis, and **P. Tsakalides**, "[Deep Convolutional Neural Networks for the Classification of Snapshot Mosaic Hyperspectral Imagery](#)," in *Proc. 2017 IS&T International Symposium on Electronic Imaging, Computational Imaging XV*, San Francisco, CA, January 29-February 2, 2017.
9. G. Tsagkatakis, M. Jaber, and **P. Tsakalides**, "[Goal! Event Detection in Sports Video](#)," in *Proc. 2017 IS&T International Symposium on Electronic Imaging, Computer Vision Applications in Sports*, San Francisco, CA, January 29-February 2, 2017.
10. G. Tsagkatakis and **P. Tsakalides**, "[A Self-Similar and Sparse Approach for Spectral Mosaic Snapshot Recovery](#)," in *Proc. 2016 IEEE International Conference on Imaging Systems and Techniques (IST 2016)*, Chania, Greece, October 4-6, 2016.
11. G. Tsagkatakis, L. Amoruso, D. Sykas, C. Abbattista, and **P. Tsakalides**, "[Lightweight Onboard Hyperspectral Compression and Recovery by Matrix Completion](#)," in *Proc. 5<sup>th</sup> International Workshop on On-Board Payload Data Compression*, ESRIN, Frascati, Italy, September 28-29, 2016.
12. K. Karagiannaki, A. Panousopoulou, and **P. Tsakalides**, "[A Benchmark Study on Feature Selection for Human Activity Recognition](#)," poster in *2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp 2016)*, Heidelberg, Germany, September 12-16, 2016.
13. S. Savvaki, G. Tsagkatakis, A. Panousopoulou, and **P. Tsakalides**, "[Effects of Matrix Completion on the Classification of Undersampled Human Activity Data Streams](#)," in *Proc. 24<sup>th</sup> European Signal Processing Conference (EUSIPCO '16)*, Budapest, Hungary, August 29 – September 2, 2016.
14. G. Tzagkarakis, C. Wouter, and **P. Tsakalides**, "[Data Compression for Snapshot Mosaic Hyperspectral Image Sensors](#)," in *Proc. 24<sup>th</sup> European Signal Processing Conference (EUSIPCO '16)*, Budapest, Hungary, August 29 – September 2, 2016.
15. G. Tsagkatakis, and **P. Tsakalides**, "[Deep Feature Learning for Hyperspectral Image Classification and Land Cover Estimation](#)," in *Proc. 2016 European Space Agency Living Planet Symposium*, Prague, Czech Republic, May 9-13, 2016.
16. K. Fotiadou, G. Tsagkatakis, and **P. Tsakalides**, "[Spectral Super-Resolution for Hyperspectral Images via Sparse Representations](#)," in *Proc. 2016 European Space Agency Living Planet Symposium*, Prague, Czech Republic, May 9-13, 2016.
17. A. Panousopoulou and **P. Tsakalides**, "[On Graph-based Feature Selection for Multi-hop Performance Characterization in Industrial Smart Water Networks](#)," in *Proc. 2<sup>nd</sup> International Workshop on Cyber-Physical Systems for Smart Water Networks (CySWater 2016)*, CPS Week 2016, Vienna, Austria April 11-14, 2016.
18. G. Tsagkatakis, B. Geelen, M. Jayapala, and **P. Tsakalides**, "[Non-negative Matrix Completion for the Enhancement of Snapshot Mosaic Multispectral Imagery](#)," in *Proc. 2016 IS&T International Symposium on Electronic Imaging, Image Sensors and Imaging Systems*, San Francisco, CA, February 15-19, 2016 (**best paper award**).
19. K. Fotiadou, G. Tsagkatakis, and **P. Tsakalides**, "[Spectral Resolution Enhancement of Hyperspectral Images via Sparse Representations](#)," in *Proc. 2016 IS&T International Symposium on Electronic Imaging, Computational Imaging*, San Francisco, CA, February 15-19, 2016.
20. P. Phivou, A. Panousopoulou, and **P. Tsakalides**, "[On Realizing Distributed Topology Control in Low-power IoT Platforms](#)," in *Proc. 2015 IEEE World Forum - Internet of Things (WF-IoT)*, Milan, Italy, December 14-16, 2015.
21. K. Karalas, G. Tsagkatakis, M. Zervakis, and **P. Tsakalides**, "[Feature learning for Multilabel Land Cover Classification](#)," in *Proc. 2015 SPIE Remote Sensing Conference, Image and Signal Processing for Remote Sensing*, Toulouse, France, September 21-24, 2015.
22. A. Mouchtaris, **P. Tsakalides** et al., "[The MusiNet Project: Addressing the Challenges in Networked Music Performance Systems](#)," in *Proc. 6<sup>th</sup> IEEE International Conference on Information, Intelligence, Systems and Applications (IISA '15)*, Ionian University, Corfu, Greece, July 6-8, 2015.
23. S. Savvaki, G. Tsagkatakis, A. Panousopoulou, and **P. Tsakalides**, "[Application of Matrix Completion on Water Treatment Data](#)," in *Proc. 1<sup>th</sup> International Workshop on Cyber-Physical Systems for Smart Water Networks (CySWater 2015)*, CPS Week 2015, Seattle, WA, USA, April 13-16, 2015.

24. G. Tzagkarakis, **P. Tsakalides**, and J. L. Starck, "[Compressive Video Sensing with Adaptive Measurement Allocation for Improving MPEGx Performance](#)," in *Proc. 10<sup>th</sup> International Conference on Computer Vision Theory and Applications (VISAPP '15)*, Berlin, Germany, March 11-14, 2015.
25. G. Tsagkatakis, and **P. Tsakalides**, "[Compressed Hyperspectral Sensing](#)," in *Proc. 2015 IS&T/SPIE Electronic Imaging Conference, Image Sensors and Imaging Systems*, San Francisco, CA, February 8-12, 2015.
26. G. Tsagkatakis, and **P. Tsakalides**, "[Recovery of Quantized Compressed Sensing Measurements](#)," in *Proc. 2015 IS&T/SPIE Electronic Imaging Conference, Computational Imaging XIII*, San Francisco, CA, February 8-12, 2015.
27. K. Fotiadou, G. Tsagkatakis, and **P. Tsakalides**, "[Low Light Image Enhancement via Sparse Representations](#)," in *Proc. International Conference on Image Analysis and Recognition (ICIAR '14)*, Vilamoura, Algarve, Portugal, October 22-24, 2014.
28. A. Achim, A. Basarab, G. Tzagkarakis, **P. Tsakalides**, and D. Kouame, "[Reconstruction of Compressively Sampled Ultrasound Images Using Dual Prior Information](#)," in *Proc. IEEE International Conference on Image Processing (ICIP '14)*, Paris, France, October 27-30, 2014.
29. A. Seliniotaki, G. Tzagkarakis, V. Christofides and **P. Tsakalides**, "[Stream Correlation Monitoring for Uncertainty-Aware Data Processing Systems](#)," in *Proc. 5<sup>th</sup> IEEE International Conference on Information, Intelligence, Systems and Applications (IISA '14)*, Chania, Greece, July 7-9, 2014.
30. A. Mouchtaris, **P. Tsakalides** et al., "[The MusiNet Project: Towards Unraveling the Full Potential of Networked Music Performance Systems](#)," in *Proc. 5<sup>th</sup> IEEE International Conference on Information, Intelligence, Systems and Applications (IISA '14)*, Chania, Greece, July 7-9, 2014.
31. G. Tsagkatakis, G. Tzagkarakis, A. Woiselle, M. Bousquet, J. L. Starck, and **P. Tsakalides**, "[Compressed Sensing Reconstruction of Convolved Sparse Signals](#)," in *Proc. 39<sup>th</sup> International Conference on Acoustics, Speech, and Signal Processing (ICASSP '14)*, Florence, Italy, May 4-9, 2014.
32. A. Chorti, K. Papadaki, **P. Tsakalides**, and H. V. Poor, "[The Secrecy Capacity of Block Fading Multiuser Wireless Networks](#)," in *Proc. International Conference on Advanced Technologies for Communications (ATC '13)*, Hochiminh City, Vietnam, October 16-18, 2013 (**best paper award**).
33. S. Nikitaki, G. Tsagkatakis, and **P. Tsakalides**, "[Efficient recalibration via Dynamic Matrix Completion](#)," in *Proc. 23<sup>th</sup> IEEE Machine Learning for Signal Processing Workshop (MLSP '13)*, Southampton, UK, September 22-25, 2013.
34. D. Milioris, G. Tzagkarakis, P. Jacquet, and **P. Tsakalides**, "[LAN-based Indoor Path Tracking Using Compressive RSS Measurements](#)," in *Proc. 21<sup>st</sup> European Signal Processing Conference (EUSIPCO '13)*, Marrakech, Morocco, September 9-13, 2013.
35. G. Tsagkatakis, A. Woiselle, G. Tzagkarakis, M. Bousquet, J. L. Starck, and **P. Tsakalides**, "[Compressed Gated Range Sensing](#)," in *Proc. 2013 SPIE Optics + Photonics Symposium, Wavelets and Sparsity XV*, San Diego, CA, August 25-29, 2013.
36. S. Nikitaki, P. M. Scholl, K. Van Laerhoven, and **P. Tsakalides**, "[Localization in Wireless Networks via Laser Scanning and Bayesian Compressed Sensing](#)," in *Proc. 14<sup>th</sup> IEEE Workshop on Signal Processing Advances in Wireless Communications (SPAWC '13)*, Darmstadt, Germany, June 16-19, 2013.
37. S. Poularakis, G. Tsagkatakis, **P. Tsakalides**, and I. Katsavounidis, "[Sparse Representations for Hand Gesture Recognition](#)," in *Proc. International Conference on Acoustics, Speech, and Signal Processing (ICASSP '13)*, Vancouver, Canada, May 26-31, 2013.
38. G. Tzagkarakis, A. Achim, **P. Tsakalides**, and J. L. Starck, "[Joint Reconstruction of Compressed Ultrasound RF Echoes by Exploiting Temporal Correlations](#)," in *Proc. IEEE International Symposium on Biomedical Imaging (ISBI 2013)*, San Francisco, CA, April 7-11, 2013.
39. S. Nikitaki and **P. Tsakalides**, "[Decentralized Indoor Wireless Localization Using Compressed Sensing of Signal-Strength Fingerprints](#)," in *Proc. 7<sup>th</sup> ACM Workshop on Performance Monitoring and Measurement of Heterogeneous Wireless and Wired Networks (PM<sup>2</sup>HW<sup>2</sup>N 2012)*, Paphos, Cyprus, October 21-25, 2012.
40. A. Fragkiadakis, S. Nikitaki and **P. Tsakalides**, "[Physical-layer Intrusion Detection for Wireless Networks using Compressed Sensing](#)," in *Proc. 5<sup>th</sup> IEEE International Workshop on Selected Topics in Mobile and Wireless Computing (STWiMob '12)*, Barcelona, Spain, October 8-10, 2012.
41. G. Tsagkatakis, A. Woiselle, G. Tzagkarakis, M. Bousquet, J. L. Starck, and **P. Tsakalides**, "[Active Range Imaging via Random Gating](#)," in *Proc. 2012 SPIE Security and Defense*, Edinburgh, United Kingdom, September 24-27, 2012.
42. G. Tsagkatakis and **P. Tsakalides**, "[Efficient High Dynamic Range Imaging Via Matrix Completion](#)," in *Proc. 22<sup>nd</sup> IEEE Machine Learning for Signal Processing Workshop (MLSP '12)*, Santander, Spain, September 23-26, 2012.
43. G. Tzagkarakis, G. Tsagkatakis, J. L. Starck, and **P. Tsakalides**, "[Compressive Video Classification in a Low-Dimensional Manifold of Random Measurements with Learned Distance Metric](#)," in *Proc. 20<sup>th</sup> European Signal Processing Conference (EUSIPCO '12)*, Boucharest, Romania, August 27-31, 2012.
44. S. Nikitaki, G. Tsagkatakis, and **P. Tsakalides**, "[Efficient Training for Fingerprint Based Positioning Using Matrix Completion](#)," in *Proc. 20<sup>th</sup> European Signal Processing Conference (EUSIPCO '12)*, Boucharest, Romania, August 27-31, 2012.

45. G. Tsagkarakis and **P. Tsakalides**, "[Dictionary Based Reconstruction and Classification of Randomly Sampled Sensor Network Data](#)," in *Proc. 7<sup>th</sup> IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM '12)*, Stevens Institute of Technology, Hoboken, NJ, USA, June 17-20, 2012.
46. A. Chorti, **P. Tsakalides**, and V. H. Poor, "[Physical Layer Security in Scale Free Networks](#)," in *Proc. 10<sup>th</sup> International Conference on Wired/Wireless Internet Communications (WWIC '12)*, Santorini, Greece, June 6-8, 2012.
47. G. Tzagkarakis, P. Charalampidis, G. Tsagkarakis, J. L. Starck, and **P. Tsakalides**, "[Compressive Video Classification for Decision Systems with Limited Resources](#)," in *Proc. Picture Coding Symposium (PCS'12)*, Krakow, Poland, May 7-9, 2012.
48. G. Tzagkarakis, A. Woiselle, **P. Tsakalides**, and J. L. Starck, "[Design of a Compressive Remote Imaging System Compensating a Highly Lightweight Encoding with a Refined Decoding Scheme](#)," in *Proc. International Conference on Computer Vision Theory and Applications (VISAPP '12)*, Rome, Italy, February 24-26, 2012.
49. S. Nikitaki and **P. Tsakalides**, "[Localization in Wireless Networks Based on Jointly Compressed Sensing](#)," in *Proc. 19<sup>th</sup> European Signal Processing Conference (EUSIPCO '11)*, Barcelona, Spain, August 29 - September 2, 2011.
50. D. Miliotis, G. Tzagkarakis, P. Jacquet, and **P. Tsakalides**, "[Indoor Positioning in Wireless LANs Using Compressive Sensing Signal-Strength Fingerprints](#)," in *Proc. 19<sup>th</sup> European Signal Processing Conference (EUSIPCO '11)*, Barcelona, Spain, August 29 - September 2, 2011.
51. G. Tzagkarakis, J.L. Starck, and **P. Tsakalides**, "[Joint Sparse Signal Ensemble Reconstruction in a WSN Using Decentralized Bayesian Matching Pursuit](#)," in *Proc. 19<sup>th</sup> European Signal Processing Conference (EUSIPCO '11)*, Barcelona, Spain, August 29 - September 2, 2011.
52. T. Agrawal, V. Lakkundi, A. Griffin, and **P. Tsakalides**, "[Compressed Sensing for OFDM UWB Systems](#)," in *Proc. IEEE Radio and Wireless Symposium (RWS '11)*, Phoenix, AZ, January 16-20, 2011.
53. S. Nikitaki and **P. Tsakalides**, "[Localization in Wireless Networks via Spatial Sparsity](#)," in *Proc. 44<sup>th</sup> Annual Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, Nov. 7-10, 2010.
54. D. Miliotis, L. Kriara, A. Papakonstantinou, G. Tzagkarakis, **P. Tsakalides**, and M. Papadopouli, "[Empirical evaluation of signal-strength fingerprint positioning in wireless LANs](#)," in *Proc. 13<sup>th</sup> ACM Intern. Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM '10)*, Bodrum, Turkey, October 17-21, 2010.
55. A. Achim, B. Buxton, G. Tzagkarakis, and **P. Tsakalides**, "[Compressive Sensing for Ultrasound RF Echoes using Alpha-Stable Distributions](#)," in *Proc. 32<sup>nd</sup> Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC '10)*, Buenos Aires, Argentina, Aug. 31-Sept. 4, 2010.
56. M. Agrawal, **P. Tsakalides**, and A. Achim, "[Medical Image Fusion using the Convolution of Meridian Distributions](#)," in *Proc. 32<sup>nd</sup> Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC '10)*, Buenos Aires, Argentina, Aug. 31-Sept. 4, 2010.
57. A. Griffin, T. Hirvonen, A. Mouchtaris, and **P. Tsakalides**, "[Multichannel Audio Coding Using Sinusoidal Modelling and Compressed Sensing](#)," in *Proc. 18<sup>th</sup> European Signal Processing Conference (EUSIPCO '10)*, Aalborg, Denmark August 23-27, 2010.
58. G. Tzagkarakis and **P. Tsakalides**, "[Greedy Sparse Reconstruction of Non-negative Signals Using Symmetric Alpha-Stable Distributions](#)," in *Proc. 18<sup>th</sup> European Signal Processing Conference (EUSIPCO '10)*, Aalborg, Denmark August 23-27, 2010.
59. G. Tzagkarakis and **P. Tsakalides**, "[Distributed Compressed Sensing of Non-negative Signals Using Symmetric Alpha-Stable Distributions](#)," in *Proc. 18<sup>th</sup> European Signal Processing Conference (EUSIPCO '10)*, Aalborg, Denmark August 23-27, 2010.
60. G. Tzagkarakis and **P. Tsakalides**, "[Sparse Representation of Medical Images via Compressed Sensing using Gaussian Scale Mixtures](#)," in *IEEE International Symposium on Biomedical Imaging (ISBI 2010)*, Rotterdam, The Netherlands, April 14-17, 2010.
61. G. Tzagkarakis and **P. Tsakalides**, "[Bayesian Compressed Sensing Imaging using a Gaussian Scale Mixture](#)," in *International Conference on Acoustics, Speech, and Signal Processing (ICASSP '10)*, Dallas, TX, March 14-19, 2010.
62. G. Tzagkarakis, D. Miliotis, and **P. Tsakalides**, "[Multiple-Measurement Bayesian Compressed Sensing using GSM Priors for DOA Estimation](#)," in *International Conference on Acoustics, Speech, and Signal Processing (ICASSP '10)*, Dallas, TX, March 14-19, 2010.
63. E. Kornaropoulos and **P. Tsakalides**, "[A Novel kNN Classifier for Acoustic Vehicle Classification based on Alpha-Stable Statistical Modelling](#)," in *Proc. 2009 IEEE Workshop on Statistical Signal Processing (SSP '09)*, /Cardiff, Wales, UK, August 31- September 3, 2009.
64. G. Tzagkarakis and **P. Tsakalides**, "[Bayesian Compressed Sensing of a Highly Impulsive Signal in Heavy-Tailed Noise using a Multivariate Cauchy Prior](#)," in *Proc. 17<sup>th</sup> European Signal Processing Conference (EUSIPCO '09)*, Glasgow, Scotland, UK, August 24-28, 2009.
65. K. Flouri, B. Bekerull-Lozano, and **P. Tsakalides**, "[Optimal Gossip Algorithm for Distributed Consensus SVM Training in Wireless Sensor Networks](#)," in *Proc. 16<sup>th</sup> International Conference on Digital Signal Processing (DSP '09)*, Santorini, Greece, July 5-7, 2009.

66. A. Griffin, T. Hirvonen, A. Mouchtaris, and **P. Tsakalides**, "[Encoding the Sinusoidal Model of an Audio Signal using Compressed Sensing](#)," in *Proc. 2009 IEEE International Conference on Multimedia & Expo (ICME '09)*, Cancun, Mexico, June 28-July 3, 2009.
67. A. Griffin, C. Tzagkarakis, T. Hirvonen, A. Mouchtaris, and **P. Tsakalides**, "[Exploiting the Sparsity of the Sinusoidal Model Using Compressed Sensing for Audio Coding](#)," in *Proc. 2009 Workshop on Signal Processing with Adaptive Sparse Structured Representations (SPARS '09)*, Saint-Malo, France, April 6-9, 2009.
68. K. Gkirtzou, **P. Tsakalides**, and P. Poirazi, "[Mature miRNA Identification via the Use of a Naive Bayes Classifier](#)," in *Proc. 8<sup>th</sup> IEEE International Conference on BioInformatics and BioEngineering (BIBE '08)*, Athens, Greece, October 8-10, 2008.
69. A. Griffin and **P. Tsakalides**, "[Compressed Sensing of Audio Signals Using Multiple Sensors](#)," in *Proc. 16<sup>th</sup> European Signal Processing Conference (EUSIPCO '08)*, Lausanne, Switzerland, August 25-29, 2008.
70. C. Tzagkarakis, A. Mouchtaris, and **P. Tsakalides**, "[Modeling and Coding of Spot Microphone Signals for Immersive Audio Based on the Sinusoidal Model](#)," in *Proc. 16<sup>th</sup> European Signal Processing Conference (EUSIPCO '08)*, Lausanne, Switzerland, August 25-29, 2008.
71. K. Flouri, B. Beferull-Lozano, and **P. Tsakalides**, "[Distributed Consensus Algorithms for SVM training in Wireless Sensor Networks](#)," in *Proc. 16<sup>th</sup> European Signal Processing Conference (EUSIPCO '08)*, Lausanne, Switzerland, August 25-29, 2008.
72. A. Mouchtaris, C. Tzagkarakis, and **P. Tsakalides**, "[Low Bitrate Coding of Spot Audio Signals for Interactive and Immersive Audio Applications](#)," in *Proc. 1<sup>st</sup> International Symposium on Intelligent Interactive Multimedia Systems and Services (KES-IIMSS '08)*, University of Piraeus, Greece, July 9-11, 2008.
73. T. Wan, G. Tzagkarakis, **P. Tsakalides**, N. Canagarajah, and A. Achim, "[Context Enhancement Through Image Fusion: A Multiresolution Approach Based on Convolution of Cauchy Distributions](#)," in *Proc. 2008 International Conference on Acoustics, Speech, and Signal Processing (ICASSP '08)*, Las Vegas, NV, March 30 – April 4, 2008.
74. A. Griffin and **P. Tsakalides**, "[Compressed Sensing of Audio Signals in a Wireless Sensor Network](#)," in *Proc. 5<sup>th</sup> European Workshop on Wireless Sensor Networks (EWSN '08)*, Bologna, Italy, January 30-February 1, 2008.
75. K. Flouri, B. Beferull-Lozano, and **P. Tsakalides**, "[Selective Gossiping for SVM Training in Wireless Sensor Networks](#)," in *Proc. 5<sup>th</sup> European Workshop on Wireless Sensor Networks (EWSN '08)*, Bologna, Italy, January 30-February 1, 2008.
76. H. Stefanou, T. Margaritis, D. Kafetzopoulos, K. Marias, and **P. Tsakalides**, "[Microarray Image Denoising Using a Two-Stage Multiresolution Technique](#)," in *Proc. 2007 International Conference on Bioinformatics and Biomedicine (BIBM '07)*, Silicon Valley, CA, November 2-4, 2007.
77. G. Tzagkarakis, M. Papadopoulou, and **P. Tsakalides**, "[Singular Spectrum Analysis of Traffic Workload in a Large-Scale Wireless LAN](#)," in *Proc. 10<sup>th</sup> ACM International Symposium on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM '07)*, Chania, Greece, October 22-26, 2007.
78. C. Tzagkarakis, A. Mouchtaris, and **P. Tsakalides**, "[Modeling Spot Microphone Signals using the Sinusoidal Plus Noise Approach](#)," in *Proc. 2007 IEEE Workshop on Applications of Signal Processing to Audio and Acoustics (WASPAA '07)*, Mohonk Mountain House, New Paltz, NY, October 21-24, 2007.
79. C. Tzagkarakis, A. Mouchtaris, and **P. Tsakalides**, "[Sinusoidal Modeling of Spot Microphone Signals based on Noise Transplantation for Multichannel Audio Coding](#)," in *Proc. 15<sup>th</sup> European Signal Processing Conference (EUSIPCO '07)*, Poznan, Poland, September 3-7, 2007.
80. K. Karadimou, A. Mouchtaris, and **P. Tsakalides**, "[Packet Loss Concealment for Multichannel Audio Using the Multiband Source/Filter Model](#)," in *Proc. 40<sup>th</sup> Annual Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, October 29-November 1, 2006.
81. K. Flouri, B. Beferull-Lozano, and **P. Tsakalides**, "[Training a SVM-based Classifier in Distributed Sensor Networks](#)," in *Proc. 14<sup>th</sup> European Signal Processing Conference (EUSIPCO '06)*, Florence, Italy, September 4-8, 2006.
82. K. Karadimou, A. Mouchtaris, and **P. Tsakalides**, "[Multiband Source/Filter Representation of Multichannel Audio for Reduction of Inter-channel Redundancy](#)," in *Proc. 14<sup>th</sup> European Signal Processing Conference (EUSIPCO '06)*, Florence, Italy, September 4-8, 2006.
83. C. Tzagkarakis, A. Mouchtaris, and **P. Tsakalides**, "[Musical Genre Classification via Generalized Gaussian and Alpha-Stable Modeling](#)," in *Proc. 2006 International Conference on Acoustics, Speech, and Signal Processing (ICASSP '06)*, Toulouse, France, May 14-19, 2006.
84. K. Flouri, B. Beferull-Lozano, and **P. Tsakalides**, "[Energy-Efficient Distributed Support Vector Machines for Wireless Sensor Networks](#)," in *Proc. 2006 European Workshop on Wireless Sensor Networks (EWSN '06)*, Zurich, Switzerland, February 13-15, 2006.
85. K. Karadimou, A. Mouchtaris, and **P. Tsakalides**, "[Multichannel Audio Modeling and Coding Using a Multiband Source/Filter Model](#)," in *Proc. 39<sup>th</sup> Annual Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, October 30-November 2, 2005.
86. M. I. Taroudakis, G. Tzagkarakis, and **P. Tsakalides**, "[Characterization of an Underwater Acoustic Signal Using the Statistics of the Wavelet Subband Coefficients](#)," in *Proc. 7<sup>th</sup> International Conference on Theoretical and Computational Acoustics*, Hangz-hou, Zhejiand, China, September 19-23, 2005.

87. A. Mouchtaris, J. Van der Spiegel, P. Mueller, and **P. Tsakalides**, "[A Spectral Conversion Approach to Feature Denoising and Speech Enhancement](#)," in *Proc. 9th European Conference on Speech Communication and Technology (Interspeech '05)*, Lisbon, Portugal, September 4-8, 2005.
88. G. Tzagkarakis, B. Beferull-Lozano, and **P. Tsakalides**, "[Rotation-Invariant Texture Retrieval with Gaussianized Steerable Pyramids](#)," in *Proc. 2005 International Conference on Acoustics, Speech, and Signal Processing (ICASSP '05)*, Philadelphia, PA, March 19-23, 2005.
89. G. Tzagkarakis, B. Beferull-Lozano, and **P. Tsakalides**, "[Sub-Gaussian Rotation-Invariant Features for Steerable Wavelet-Based Image Retrieval](#)," in *Proc. 38<sup>th</sup> Annual Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 7-10, 2004.
90. A. Achim, A. Bezerianos, **P. Tsakalides**, C. Ozturk, and A. Ademoglu, "[Initialization of an Active Contour Algorithm for MRI using Bayesian Wavelet Shrinkage and Multiscale Products](#)," in *Proc. 4<sup>th</sup> European Symposium on Biomedical Engineering*, Patras, Greece, June 25-27, 2004.
91. G. Tzagkarakis and **P. Tsakalides**, "[A Statistical Approach to Texture Image Retrieval via Alpha-Stable Modeling of Wavelet Decompositions](#)," in *Proc. 5th International Workshop on Image Analysis for Multimedia Interactive Services (WIAMIS '04)*, Lisbon, Portugal, April 21-23, 2004.
92. A. Achim, A. Bezerianos, and **P. Tsakalides**, "[SAR Image Denoising: A Multiscale Robust Statistical Approach](#)," in *Proc. 14<sup>th</sup> International Conference on Digital Signal Processing (DSP '02)*, Santorini, Greece, July 1-3, 2002.
93. A. Achim, A. Bezerianos, and **P. Tsakalides**, "[Ultrasound Image Denoising Via Maximum A Posteriori Estimation of Wavelet Coefficients](#)," in *Proc. 23<sup>rd</sup> Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC '01)*, Istanbul, Turkey, October 25-28, 2001.
94. A. Achim, A. Bezerianos, and **P. Tsakalides**, "[Wavelet-Based Ultrasound Image Denoising Using an Alpha-Stable Prior Probability Model](#)," in *Proc. 2001 IEEE International Conference on Image Processing (ICIP '01)*, Thessaloniki, Greece, October 7-10, 2001.
95. V. Paliouras, J. Dages, **P. Tsakalides** and T. Stouraitis, "[VLSI Architectures for Blind Equalization Based on Fractional-Order Statistics](#)," in *Proc. 8<sup>th</sup> International Conference on Electronics, Circuits and Systems (ICECS '01)*, Malta, September 2-5, 2001.
96. A. Achim, A. Bezerianos, and **P. Tsakalides**, "[An Alpha-Stable Based Bayesian Algorithm for Speckle Noise Removal in the Wavelet Domain](#)," in *Proc. 2001 IEEE Workshop on Nonlinear Signal and Image Processing (NSIP '01)*, Baltimore, MD, June 3-6, 2001.
97. **P. Tsakalides** and C. L. Nikias, "[A New Phase Gradient Autofocus Technique for High Resolution Image Formation Based on Fractional Lower-Order Statistics](#)," in *Proc. 6<sup>th</sup> International Conference on Electronics, Circuits and Systems (ICECS '99)*, Paphos, Cyprus, Sept. 5-8, 1999, pp. 667-670.
98. P. G. Georgiou, **P. Tsakalides**, and C. Kyriakakis, "[Alpha-Stable Robust Modeling of Background Noise for Enhanced Sound Source Localization](#)," in *Proc. ICASSP 1999*, Phoenix, AZ, March 15-19, 1999, pp. 3085-3088.
99. M. Rupi, **P. Tsakalides**, C. L. Nikias, and E. Del Re, "[Robust Constant Modulus Arrays Based on Fractional Lower-Order Statistics](#)," in *Proc. ICASSP 1999*, Phoenix, AZ, March 15-19, 1999, pp. 2945-2948.
100. **P. Tsakalides**, F. Trinci, and C. L. Nikias, "[Radar CFAR Thresholding in Heavy-Tailed Clutter and Positive Alpha-Stable Measurements](#)," in *Proc. 32<sup>nd</sup> Annual Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 1-4, 1998, pp. 426-430.
101. M. Rupi, **P. Tsakalides**, E. Del Re, and C. L. Nikias, "A Robust Spatial Filtering Method for DOA Estimation of Coherent Sources in Impulsive Interference," in *Proc. 10<sup>th</sup> Tyrrhenian Workshop on Digital Communications*, Ischia, Italy, September 15-18, 1998, pp. 46-56.
102. G. A. Tsihrintzis, **P. Tsakalides**, and C. L. Nikias, "[Spectral Methods for Stationary Harmonizable Alpha-Stable Random Processes](#)," in *Proc. 9th European Signal Processing Conference (EUSIPCO '98)*, Rhodes, Greece, September 8-11, 1998.
103. **P. Tsakalides** and C. L. Nikias, "Space-Time Adaptive Processing in Stable Impulsive Interference," in *Proc. 31<sup>st</sup> Annual Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 3-6, 1997, pp. 389-393.
104. P. G. Georgiou, C. Kyriakakis, and **P. Tsakalides**, "[Robust Time Delay Estimation for Sound Source Localization in Noisy Environments](#)," in *IEEE 1997 Workshop on Applications of Signal Processing to Audio and Acoustics*, Mohonk Mountain House New Paltz, NY, October 19-22, 1997, pp. 298-301.
105. **P. Tsakalides** and C. L. Nikias, "[A New Model for non-Rayleigh Clutter: Space-Time Adaptive Processing in Stable Impulsive Interference](#)," in *Proc. ICASSP 1997*, Munich, Germany, April 21-24, 1997, pp. 3517-3520.
106. G. A. Tsihrintzis, **P. Tsakalides**, and C. L. Nikias, "Fractional-Power Spectrum of Stationary Harmonizable Alpha-Stable Random Processes and its Estimation," in *Proc. 31<sup>st</sup> Conference on Information Sciences and Systems*, Baltimore, MD, March 19-21, 1997, pp. 1-5.
107. P. Reveliotis, **P. Tsakalides**, and C. L. Nikias, "[Scalar Quantization of Alpha-Stable Distributed Random Variables](#)," in *Proc. 31<sup>st</sup> Conference on Information Sciences and Systems*, Baltimore, MD, March 19-21, 1997, pp. 22-27.
108. **P. Tsakalides** and C. L. Nikias, "[Joint Location and Doppler Estimation with Fractional Lower-Order Statistics](#)," in *Proc. IEEE Military Communications Conference (MILCOM '96)*, McLean, VA, October 29-31, 1996, pp. 833-837.

109. **P. Tsakalides** and C. L. Nikias, "[Joint Target Angle and Doppler Estimation with Fractional Lower-Order Statistics for Airborne Radar](#)," in *Proc. 8<sup>th</sup> IEEE Signal Processing Workshop on Statistical Signal and Array Processing*, Corfu, Greece, June 24-26, 1996, pp. 70-73.
110. R. Raspanti, **P. Tsakalides**, C. L. Nikias, and E. Del Re "[Cramer-Rao Bounds for Target Angle and Doppler Estimation for Airborne Radar in Cauchy Interference](#)," in *Proc. 8<sup>th</sup> IEEE Signal Processing Workshop on Statistical Signal and Array Processing*, Corfu, Greece, June 24-26, 1996, pp. 534-537.
111. **P. Tsakalides** and C. L. Nikias, "[Robust Adaptive Beamforming in Alpha-Stable Noise Environments](#)," in *Proc. ICASSP 1996*, Atlanta, GA, May 7-10, 1996, pp. 2884-2887.
112. **P. Tsakalides** and C. L. Nikias, "Mine Detection with the Cauchy Beamforming Signal Processing Approach," *Proc. SPIE Symposium on Aerospace/Defense Sensing and Controls*, Orlando, FL, April 8-12, 1996.
113. **P. Tsakalides**, R. Raspanti, and C. L. Nikias, "[Joint Target Angle and Doppler Estimation in Interference Modeled as a Stable Process](#)," in *Proc. 30<sup>th</sup> Conference on Information Sciences and Systems*, Princeton, NJ, March 20-22, 1996, pp. 797-802.
114. **P. Tsakalides** and C. L. Nikias, "[Wide-band Array Signal Processing with Alpha-Stable Distributions](#)," in *Proc. IEEE Military Communications Conference (MILCOM '95)*, San Diego, CA, November 6-8, 1995, pp. 135-139.
115. G. A. Tsihrintzis, **P. Tsakalides** and C. L. Nikias, "[Signal Detection in Severely Heavy-Tailed Radar Clutter](#)," in *Proc. 29<sup>th</sup> Annual Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, October 1995, pp. 865-869.
116. **P. Tsakalides** and C. L. Nikias, "[Broadband Beamforming with Alpha-Stable Distributions](#)," in *Proc. 29<sup>th</sup> Annual Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, October 1995, pp. 1106-1110.
117. **P. Tsakalides** and C. L. Nikias, "Array Signal Processing in the Alpha-Stable Framework: Detection and Localization of Sources in Impulsive Noise Environments," in *Proc. 1995 IEEE Workshop on Nonlinear Signal and Image Processing*, Neos Marmaras, Greece, June, 1995, pp. 563-566.
118. **P. Tsakalides** and C. L. Nikias, "[Subspace-Based Direction Finding in Alpha-Stable Noise Environments](#)," in *Proc. ICASSP 1995*, Detroit, MI, May 1995, pp. 2092-2095.
119. **P. Tsakalides** and C. L. Nikias, "Direction Finding with Fractional Lower-Order Statistics," in *Proc. 1995 Workshop on Adaptive Sensor Array Processing (ASAP '95)*, MIT Lincoln Laboratory, Lexington, MA, March 1995, pp. 179-203.
120. **P. Tsakalides** and C. L. Nikias, "[Maximum Likelihood Localization of Sources in Noise Modeled as a Cauchy Process](#)," in *Proc. IEEE Military Communications Conference (MILCOM '94)*, Fort Monmouth, NJ, vol. 2, pp. 613-617, October 1994, pp. 613-617.
121. **P. Tsakalides** and C. L. Nikias, "A New Robust Array Processing Method Based on the Cauchy Beamformer," in *Proc. 1994 Workshop on Adaptive Sensor Array Processing (ASAP '94)*, MIT Lincoln Laboratory, Lexington, MA, March 1994.
122. **P. Tsakalides** and C. L. Nikias, "[A New Criterion for Blind Deconvolution of Colored Input Signals](#)," in *Proc. 27<sup>th</sup> Annual Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, vol. 1, pp. 746-750, November 1993, pp. 746-750.

## F. OTHER PUBLICATIONS

1. "[Computational Snapshot Spectral Imaging](#)," *ERCIM News*, no. 108, p. 39, January 2017.
2. "[The CS-ORION Project - Sharper Sensing for Surveillance Systems](#)," *DG Research Success Stories*, July 2016.
3. "[The ASPIRE Project – Novel Signal Processing for Future Sensor Networks](#)," *The Parliament Magazine's Research Review*, no. 13, p. 61, June 2010.
4. "[The ASPIRE Project – Sensor Networks for Immersive Multimedia Environments](#)," *ERCIM News*, no. 78, pp. 38-39, July 2009.
5. "[Integrating WSN into the Fabric of the Future](#)," *e-Strategies Projects*, no. 8, pp. 18- 20, December 2008.
6. "[Σύγκλιση Τηλεπικοινωνιών και Πληροφορικής: Συνδέοντας το Φυσικό Κόσμο με Ασύρματα Δίκτυα Αισθητήρων](#)," *Καθημερινή Economist*, September 2007.