

Panagiotis Tsakalides
www.ics.forth.gr/~tsakalid
<https://spl.ics.forth.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. He served as the Associate Rector for Finance (03/2017-08/2019) and as the Rector of the University of Crete (09/2019-08/2020). Currently, he is the Director of FORTH-ICS, the Vice Chairman of FORTH BoD, and the Head of the Signal Processing Laboratory.

His research interests lie in the field of statistical signal processing and machine learning 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 250 technical publications in these areas, including 68 papers in international peer-reviewed journals, 2 patents, 1 edited book, 6 book chapters, 173 papers in international conferences, and 9 articles in specialized research review magazines. According to Google Scholar, he has more than 7200 citations, an h-index of 38, and an i10-index of 114.

Prof. Tsakalides is deeply committed to mentoring young researchers, having supervised 10 PhD students, 31 MSc students, and 11 postdoctoral fellows. At FORTH-ICS, he founded and leads the [Signal Processing Laboratory](#) (SPL). Established in 2011, SPL emerged naturally from the group's expanding research and innovation efforts that began in 2002. The laboratory was among the first worldwide to apply ground-breaking concepts such as non-Gaussian modeling, multichannel coding, compressed sensing, and matrix completion to fields like multimedia signal processing, wireless sensor networks, positioning, and remote sensing. Today, SPL has grown into a dynamic team of 40 researchers, with a strong presence in European projects.

Prof. Tsakalides is 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 10 European Commission and 13 national projects with a budget in excess of 15 M€ totaling more than 8 M€ in actual funding for the University of Crete and FORTH-ICS. He was the coordinator of the 1.3 M€ FP7 MC-IAPP "[CS-ORION](#)" project conducting research on compressed sensing for remote imaging in aerial and terrestrial surveillance and of the 1 M€ H2020 COMPET project "[PHySIS](#)" conducting research on sparse signal processing technologies for hyperspectral systems. CS-ORION was tagged as a success story by the European Commission. He currently runs a 2.5 M€ Horizon Europe ERA Chair project titled "[TITAN](#): Frugal Artificial Intelligence and Application in Astrophysics," to create a center of excellence in computational science, machine learning and statistics research for data-oriented Astronomy.

Prof. Tsakalides possesses an extensive and successful administrative experience. In March 2017, he was appointed the Vice Rector of Financial Planning, Infrastructure and Development at the University of Crete, overseeing a major investment for upgrading scientific instrumentation infrastructure and for improving the energy efficiency of campus buildings. From September 2019 to August 2020, he was the University Rector. He served two 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 focused 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 (2010-16, 2021-present) 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)
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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
- 9/2019 – 9/2020: University Rector
- 3/2017 – 9/2019: Vice Rector of Financial Planning, Infrastructure and Development
- 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 – 2/2017: Department Associate Chairman

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

- Director, FORTH-ICS (02/2026 – present)
- Vice Chairman, Board of Directors, FORTH (02/2026 – present)
- Deputy Director, FORTH-ICS (06/2021 – 01/2026)
- 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 10 European Commission and 13 national projects with a budget in excess of 15.3 M€ totaling more than 8.3 M€ in actual funding for FORTH-ICS and the University of Crete.

- 01/2023 – 12/2027 “[TITAN: Frugal Artificial Intelligence and Application in Astrophysics](#),” European Commission, Horizon Europe, HORIZON-WIDERA-2022-TALENTS-01 (ERA Chairs), **€2,500,000**. Project coordinator: P. Tsakalides, ERA Chair: Jean-Luc Starck.
- 09/2024 – 08/2027 “[BrainCode: Brain-inspired Intelligence for Semantic Video Compression](#),” European Commission, Horizon Europe, Marie Skłodowska-Curie HORIZON-MSCA-2023-PF-01, **€279,227**. Project PI: E. Doutsis, Project coordinators: P. Tsakalides and I. Katsavounidis (Meta).
- 01/2020 – 12/2022 “[V⁴-ICARUS: On-line and Adaptive Mathematical Signal Processing and Learning for Uncovering the Big Data Universe](#),” Hellenic Foundation for Research and Innovation (HFRI-EΛΙΔΕΚ), Research Projects for the Support of Academic Staff, total FORTH-ICS cost/funding: **€170,000**. Project coordinator: P. Tsakalides.
- 05/2018 – 10/2022 “[FRESQO: Freshness Recording System for Fish Quality Observation](#),” Greek Operational Program for Fisheries and the Sea 2014-2020, total cost/funding: €478,024, FORTH-ICS cost/funding: **€130,137**. PI for FORTH-ICS: P. Tsakalides, Project coordinator: I. Ioannidis (Athina Research Center).
- 11/2019 – 07/2022 “[CALCHAS: Computational Intelligence for Multi-Source Remote Sensing Data Analytics](#),” European Commission, H2020, Marie Skłodowska-Curie MSCA-IF-GF, **€215,492**. Project PI: G. Tsagkatakis, Project coordinators: P. Tsakalides and M. Moghaddam (USC).
- 08/2018 – 12/2020 “[SPARSE-VIEW: Sparse Representations Theory and Techniques for Hyperspectral and Medical Imaging Systems](#),” Greek Operational Program for Human Resources Development, Education and Lifelong Learning, **€65,800**. Project coordinator: P. Tsakalides.
- 12/2017 – 10/2020 “[SMARTWATER2020: Smart Water Distribution Networks for Loss Reduction](#),” European Territorial Cooperation (ETC) Interreg V-A Programme GR-CY 2014-2020, total cost/funding: €907,000/€770,950, FORTH-ICS cost/funding: **€200,000**. PI for FORTH-ICS: P. Tsakalides, Project coordinator: M. Polycarpou (KIOS, University of Cyprus).
- 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).
- 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**. Project coordinator: P. Tsakalides.
- 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: J.L. Starck (CEA/Saclay, France), M. Bousquet (SAGEM Defense Securite, France), and D. Tsigos (V-Trip, 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 *“ASPIRE: 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

- 02/2026 – present Director, FORTH-ICS
- 02/2026 – present Vice Chairman, Board of Directors, FORTH
- 06/2021 – 01/2026 Deputy Director, FORTH-ICS
- 09/2019 – 09/2020 Rector, University of Crete
- 03/2017 – 09/2019 Vice Rector of Financial Planning, Infrastructure and Development, University of Crete
- 10/2010 – 02/2017 Chairman, Technical Council of the University of Crete
- 09/2004 – 08/2006 &
09/2014 – 08/2016 Chairman, Department of Computer Science, University of Crete
- 09/2006 – 08/2008 &
09/2010 – 08/2014 &
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 &
09/2008 – 08/2010 &
09/2012 – 08/2014 &
09/2016 – 08/2018 &
09/2020 – present Member, Graduate Studies Committee, Department of Computer Science, Univ. of Crete

TEACHING EXPERIENCE

Undergraduate courses

Probability Theory (Fall 2002-2012, 2014-2025)
Applied Random Processes (Spring 2005-2012, Fall 2013, Spring 2016, 2021-26)
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. Areti Zervou. "Similarity search in large-scale time series collections" 03/2025 – present.
2. Anastasia Aidini. "Tensor-based models in the deep learning framework for high-dimensional astrophysical data analysis," 06/2023 – present.
3. Effrosyni Doutsis. "Neuro-inspired coding of images and videos" 09/2018 – 12/2024. Now a Marie Curie fellow at Meta.
4. Grigorios Tsagkatakis. "Sparse representations for resource constrained remote imaging systems," 08/2011 – 07/2015. Now an Assistant Professor at the University of Crete.
5. Athanasia Panousopoulou. "Networking and implementation aspects of WSNs for sensing and control of industrial plants," 06/2013 – 09/2018. Now a Senior Back End Engineer at IntelliSense.io, UK.
6. Arsenia Chorti. "Applied physical layer orthogonal frequency division multiplexing encryption," 05/2011 – 11/2013. Now a Professor at ENSEA - University of Cergy-Pontoise – CNRS, FR.
7. Alexandros Friagkiadakis, "Intrusion detection for wireless networks using compressed sensing," 10/2011 – 11/2012. Now a Senior Researcher at FORTH-ICS.
8. Vishwas Lakkundi. "Compressive sensing based ultra-wideband communication systems," 02/2009 – 03/2011. Now a Data Protection Officer at Smarten Spaces, India.
9. Anthony Griffin. "Compressive sensing methods for multichannel audio acquisition, representation, and transmission," 01/2007 – 02/2009. Now a Senior Software Engineer at Fourier Space, NZ.
10. Toni Hirvonen. "Perceptual and modeling studies on spatial sound," 10/2008 – 03/2010. Now an Acoustician at Akukon Ltd, Finland.
11. Athanasios Mouchtaris. "Immersive audio rendering and transmission technologies," 09/2004 – 06/2008. Now a Senior Manager, Applied Science at Amazon Alexa.

Doctoral students

1. Konstantinos Bountrogiannis. "Infusing the age of information to boost the performance of multimodal machine learning and compressive sensing algorithms," 09/2020-present.
2. Areti Zervou. "Graph representation learning with generative adversarial networks for the protein folding problem," 09/2019 – 02/2025. Now a post-doctoral fellow at FORTH-ICS.
3. Eirini Troullinou. "Learning deep generative models for the enhancement of imbalanced signal classification," 03/2018 – 05/2023. Now a post-doctoral fellow at FORTH-IMBB.
4. Anastasia Aidini. "Tensor learning for high-dimensional signal acquisition and analysis," 02/2017 – 05/2023. Now a post-doctoral fellow at FORTH-ICS.
5. Michalis Giannopoulos. "Tensor signal modeling for high-dimensional deep learning systems," 09/2016 – 04/2023. Now a data scientist at HOMLI, Athens, Greece.
6. Anastasia Pentari. "Graph signal processing and recurrence quantification techniques for the analysis of biomedical signal ensembles," 09/2016 – 04/2022. Now a research associate at FORTH-ICS, Heraklion, Greece.
7. Konstantina Fotiadou. "Sparse representations and coupled dictionary learning for the enhancement of computational imaging systems," 10/2014 – 09/2019. Now a solutions architect, Databricks, the Netherlands.

8. Sofia Nikitaki. "Location sensing via sparse and low rank signal models" 10/2009 - 06/2014. Now a data scientist at Deutsche Telekom, Darmstadt, Hesse, Germany.
9. Kallirroé Flouri. "Distributed algorithms for support vector machine training in wireless sensor networks," 09/2006 - 11/2009. Now a solutions manager in asset management at Swiss Re, Zurich, Switzerland.
10. George Tzagkarakis. "Bayesian compressed sensing using alpha-stable distributions" 01/2005 - 11/2009. Now a principal researcher at FORTH-ICS, Heraklion, Greece.

Master's students

1. Eleftherios Polychronakis. "Multi-source uncertainty aware fusion for soil moisture estimation," 09/2024 – 02/2026.
2. Georgios Kotsopoulos. "A U-Net based adversarial framework for global and local feedback in antimicrobial peptide generation," 09/2024 – 02/2026.
3. Andreas Symiakakis. "Application of similarity learning and few-shot learning techniques for percussive sound recognition," 09/2022 – 03/2024.
4. Eleftheria Plevridi. "Decentralized identity management and access control based on blockchain technologies," 09/2022 – 03/2024.
5. Marianna Velessioti. "Autonomous fire front detection in satellite images with deep reinforcement learning," 09/2022 – 11/2023.
6. Eleftheria Lydaki. "Speech rhythm detection and its application in speech perception," 09/2022 – 06/2023.
7. Georgios Drakonakis. "Flood mapping via satellite remote sensing and artificial intelligence," 05/2020 – 03/2021.
8. Konstantinos Bountrogiannis. "Data-driven symbolic representations for high-level time series analysis," 02/2019 – 07/2020.
9. Antonis Tzougkarakis, "Distributed network management for smart water grids," 09/2017 – 07/2019.
10. Areti Zervou. "Distributed motif discovery of human activity based on body sensor networks," 02/2016 – 07/2019.
11. Maria Aspri. "Distributed computing architectures for streaming sensor analytics," 02/2017 – 06/2019.
12. Manthos Stivaktakis. "Deep learning techniques in signal processing," 02/2017 – 02/2019.
13. Eirini Troullinou. "Analysis and modeling of spontaneous neuronal activity using dictionary learning systems," 09/2015 – 02/2018.
14. Katerina Karagiannaki. "Feature selection architectures for human activity recognition," 09/2014 – 06/2017.
15. Sofia Savvaki. "Novel techniques for the estimation of multi-modal missing data in wireless sensor networks," 09/2013 – 10/2016.
16. Kostas Karalas. "Multi-label land cover classification with remotely sensed data," 02/2014 – 11/2015.
17. Konstantina Fotiadou. "Image super-resolution and low light image enhancement via sparse representations," 03/2012 – 10/2014.
18. Pavlos Charalampidis. "Compressed sensing for image and video coding and transmission," 09/2010 – 7/2013.
19. Dimitra Emmanouilidou. "Bayesian compressive sensing for magnetic resonance imaging," 01/2009 – 11/2010.
20. Tanish Agrawal. "Compressed sensing for OFDM-based ultra wideband systems," 09/2009 – 09/2010.
21. Aikaterini Gkirtzou. "Mature miRNA identification via the use of a naive Bayes classifier," 09/2006 – 2/2009.
22. Christos Tzagkarakis. "Sinusoidal modeling for multichannel audio coding," 09/2005 – 09/2007.
23. Hara Stefanou. "DNA microarray image enhancement in a multiresolution framework," 09/2005 – 08/2007.
24. Kyriaki Karadimou. "Multichannel audio coding using the multiband source/filter model," 09/2004 – 11/2005.
25. Anastasia Evangelatou. "DVB-RCT physical layer and implementation of the frame adaptation unit," 01/2004 – 03/2005.
26. George Tzagkarakis. "Content-based image retrieval via alpha-stable modeling of texture information," 01/2003 – 12/2004.

27. Alexia Briassouli. “DCT-domain watermark detection using alpha-stable models” 01/2000 – 09/2000.
28. Ioannis Dages. “Non-Linear Blind Equalization of Noisy Communication Channels” 02/2000 – 05/2001.
29. Filippo Trinci. “Constant False Alarm Rate (CFAR) Radar Detectors in Heavy-Tailed Clutter” 09/1997 – 12/1998.
30. Panagiotis Reveliotis. “Rate-Distortion Theory in the Alpha-Stable Framework” 09/1996 – 12/1997.
31. Raffaele Raspanti. “Space-Time Adaptive Processing for Airborne Radar in Impulsive Clutter Environments” 02/1996 – 12/1996.

Other students advising

1. Has supervised over 120 undergraduate diploma theses over the past 23 years at the University of Crete
2. Has been a member of the PhD examination committee of 50+ doctoral candidates since 2002

EXPERTISE AND GENERAL RESEARCH INTERESTS

1. Mathematical Signal Processing and Machine Learning:
 - Compressed sensing, sparse representations, and applications
 - SAR, radar, and sonar signal processing
 - Hyperspectral imaging systems
 - Biomedical image and signal processing
 - Astrophysical data 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

September 2025	“Stelios Pichoridis” Award for Excellence in University Teaching for the academic year 2024–2025, University of Crete.
February 2018	Best Paper Award for the paper “1-Bit Tensor Completion,” (A. Aidini and G. Tsagkatakis co-authors) in <i>Proc. 2018 IS&T International Symposium on Electronic Imaging, Image Processing: Algorithms and Systems</i> , Burlingame, CA, Jan. 28 – Feb. 2, 2018.
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 <i>Proc. 2016 IS&T International Symposium on Electronic Imaging, Image Sensors and Imaging Systems</i> , 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 <i>Proc. International Conference on Advanced Technologies for Comm. (ATC '13)</i> , 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) <i>IEE Proceedings – Vision, Image and Signal Processing</i> , vol. 147, 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	Greek State Scholarship Foundation (IKY) fellowships for academic excellence throughout undergraduate studies
1985	Greek State Scholarship Foundation (IKY) fellowship for ranking first in the University entry national exam for the Department of Electrical Engineering, University of Thessaloniki

PROFESSIONAL ACTIVITIES

- **Publicity Chair**, 44th *International Geoscience and Remote Sensing Symposium (IGARSS '24)*, Athens, Greece, July 7-12, 2024.
- **Publicity Chair**, 58th *International Conference on Acoustics, Speech, and Signal Processing (ICASSP '23)*, Rhodes Island, Greece, June 4-9, 2023.
- **Special Session Co-organizer**, 29th *IEEE International Conference on Image Processing (ICIP 2022)*, “Neuromorphic and Perception-based Image Acquisition and Analysis,” Bordeaux, France, Oct. 16-19, 2022.
- **Expert Evaluator**, European Commission, Horizon Europe Framework Programme, “HORIZON-EIC-2021-TRANSITIONOPEN-01,” October 2021.
- **Organizing Committee Co-Chair**, *Workshop on Computational Intelligence in Remote Sensing and Astrophysics*, Heraklion, Crete, July 17-19, 2019.
- **Chair**, 4th *International Workshop on Cyber-Physical Systems for Smart Water Networks (CySWater)*, in conjunction with CPS Week 2018, Porto, Portugal, April 10, 2018.
- **Expert Evaluator**, European Commission, H2020 Framework Programme, “H2020-WIDESPREAD-04-2017-TeamingPhase1.”
- **Publicity Chair**, 25th *European Signal Processing Conference (EUSIPCO)*, Kos Island, Greece, August 28 - September 2, 2017.
- **Chair**, 3rd *International Workshop on Cyber-Physical Systems for Smart Water Networks (CySWater)*, in conjunction with CPS Week 2017, Pittsburgh, USA, April 21, 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 21st Century Cosmology (SCCC21)*, in conjunction with the Astronomical Data Analysis Summer School, Chania, Greece, May 22-27, 2016.
- **Chair**, 2nd *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**, 18th *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**, 5th *Astronomical Data Analysis (ADA V) Conference*, Hersonissos, Crete, Greece, May 7-9, 2008.
- **Chairman of the Organizing and Program Committees**, 8th *Biannual FORTH retreat*, October 12-13, 2007.
- **Member of the Organising and Program Committees, Session Chair** (Adaptive Signal Processing), 6th *IEEE International Conference on Electronics, Circuits, and Systems*, Paphos, Cyprus, September 1999.
- **Session Chair** (Signal Processing for Multimedia Communications), 10th *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*, *IEE 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

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A. PHD THESIS

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

B. EDITED BOOKS

1. “[Smart Water Grids: A Cyber-Physical Systems Approach](#),” **P. Tsakalides**, A. Panousopoulou, G. Tsagkatakis, and L. Montestruque Eds., CRC Press, ISBN 9781138197930, April 2018.

C. BOOK CHAPTERS

1. M. Kalaitzakis, **P. Tsakalides**, C. Stephanidis, et al., “[Building a Smart City Ecosystem for Third Party Innovation in the City of Heraklion](#),” in *Mediterranean Cities and Island Communities: Smart, Sustainable, Inclusive and Resilient*, A. Stratigea and D. Kavroudakis Eds., Springer International Publishing, ISBN 978-3-319-99443-7, 2019 pp. 19-56.
2. 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.
3. 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.
4. 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.
5. **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.
6. **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.

D. 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.

E. REFEREED JOURNAL PAPERS

1. A. Gkogkou, V. Bonjean, J.-L. Starck, M. Spinelli, and **P. Tsakalides**, “[Foreground Removal in HI 21 cm Intensity Mapping under Frequency-dependent Beam Distortions](#),” *Astronomy & Astrophysics*, to appear in 2026, DOI: <https://doi.org/10.1051/0004-6361/202557229>.
2. V. Bonjean, A. Gkogkou, J.-L. Starck, and **P. Tsakalides**, “[LCS: A Learnlet-Based Sparse Framework for Blind Source Separation](#),” *Astronomy & Astrophysics*, 705 (2026) A226, DOI: <https://doi.org/10.1051/0004-6361/202556228>.
3. A. Zervou, E. Doutsis, Y. Pantazis, and **P. Tsakalides**, “[Classifier-driven Generative Adversarial Networks for Enhanced Antimicrobial Peptide Design](#),” *Briefings in Bioinformatics*, Volume 26, Issue 5, September 2025, bbaf500, <https://doi.org/10.1093/bib/bbaf500>.

4. C. Kopidaki, G. Tsagkatakis, and **P. Tsakalides**, "[Federated Learning for Remote Sensing Image Classification Using Sparse Image Representations](#)," *IEEE Geoscience and Remote Sensing Letters*, vol. 22, pp. 1-5, 2025, Art no. 6006905, doi: 10.1109/LGRS.2025.3557579.
5. T. Kyriani, E. Doutsis, and **P. Tsakalides**, "[Recurrence Quantification Analysis for Scene Change Detection and Foreground/Background Segmentation in Videos](#)," *MDPI Journal of Imaging*, 2025, 11(4), 113; doi: 10.3390/jimaging11040113.
6. K. Bountrogiannis, A. Ephremides, **P. Tsakalides**, and G. Tzagkarakis, "[Age of Incorrect Information with Hybrid ARQ under a Resource Constraint for N-ary Symmetric Markov Sources](#)," *IEEE Transactions on Networking*, vol. 33, no. 2, pp. 640-653, April 2025, doi: 10.1109/TNET.2024.3499372.
7. M. Giannopoulos, G. Tsagkatakis, and **P. Tsakalides**, "[Higher-Order Convolutional Neural Networks for Essential Climate Variables Forecasting](#)," *MDPI Remote Sensing*, 2024, 16, 2020. <https://doi.org/10.3390/rs16112020>.
8. A. Zervou, E. Doutsis, Y. Pantazis, and **P. Tsakalides**, "[De Novo Antimicrobial Peptide Design with Feedback Generative Adversarial Networks](#)," *International Journal of Molecular Sciences*, Special Issue on Molecular Advances in Bioinformatics Analysis of Protein Properties, 2024, 25, 5506. <https://doi.org/10.3390/ijms25105506>.
9. E. Troullinou, G. Tsagkatakis, A. Losonczy, P. Poirazi, and **P. Tsakalides**, "[A Generative Neighborhood-based Deep Autoencoder for Robust Imbalanced Classification](#)," *IEEE Transactions on Artificial Intelligence*, vol. 5, no. 1, pp. 80-91, Jan. 2024, doi: 10.1109/TAI.2023.3249685.
10. K. Bountrogiannis, G. Tzagkarakis, and **P. Tsakalides**, "[Distribution Agnostic Symbolic Representations for Time Series Dimensionality Reduction and Online Anomaly Detection](#)," *IEEE Transactions on Knowledge and Data Engineering*, vol. 35, no. 6, June 2023, doi: 10.1109/TKDE.2022.3174630.
11. A. Pentari, G. Tzagkarakis, K. Marias, and **P. Tsakalides**, "[Graph Denoising of Impulsive EEG Signals and the Effect of their Graph Representation](#)," *Elsevier Biomedical Signal Processing and Control*, vol. 78, 2022, 103886, ISSN 1746-8094, <https://doi.org/10.1016/j.bspc.2022.103886>.
12. G. Drakonakis, G. Tsagkatakis, K. Fotiadou, and **P. Tsakalides**, "[OmbriaNet - Supervised Flood Mapping via Convolutional Neural Networks Using Multitemporal Sentinel-1 and Sentinel-2 Data Fusion](#)," *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, vol. 15, pp. 2341-2356, 2022, doi: 10.1109/JSTARS.2022.3155559.
13. M. Villia, G. Tsagkatakis, M. Moghaddam, and **P. Tsakalides**, "[Embedded Temporal Convolutional Networks for Essential Climate Variables Forecasting](#)," *MDPI Sensors*, Special Issue on Machine Learning, Signal, and/or Image Processing Methods to Enhance Environmental Sensors, 2022, 22(5), 1851; <https://doi.org/10.3390/s22051851>.
14. M. Giannopoulos, G. Tsagkatakis, and **P. Tsakalides**, "[4D U-Nets for Multi-Temporal Remote Sensing Data Classification](#)," *MDPI Remote Sensing*, Special Issue on Computer Vision and Pattern Recognition for the Analysis of 2D/3D Remote Sensing Data in Geoscience, 2022, 14(3), 634; <https://doi.org/10.3390/rs14030634>.
15. A. Pentari, G. Tzagkarakis, **P. Tsakalides**, P. Simos, G. Bertisias, E. Kavroulakis, K. Marias, N. J. Simos, and E. Papadaki, "[Changes in resting-state functional connectivity in neuropsychiatric Lupus: A dynamic approach based on recurrence quantification analysis](#)," *Elsevier Biomedical Signal Processing and Control*, vol. 72, part A, 2022, pages 103285, ISSN 1746-8094, <https://doi.org/10.1016/j.bspc.2021.103285>.
16. E. Doutsis, L. Fillatre, M. Antonini, and **P. Tsakalides**, "[Dynamic Image Quantization Using Leaky Integrate-and-Fire Neurons](#)," *IEEE Transactions on Image Processing*, vol. 30, pp. 4305-4315, 2021, doi: 10.1109/TIP.2021.30701932021.
17. A. Zervou, E. Doutsis, P. Pavlidis, and **P. Tsakalides**, "[Structural Classification of Proteins Based on the Computationally Efficient Recurrence Quantification Analysis and Horizontal Visibility Graphs](#)," *Bioinformatics*, 2021, bt407, <https://doi.org/10.1093/bioinformatics/bt407>.
18. E. Troullinou, G. Tsagkatakis, S. Chavlis, G. Turi, W.-K. Li, A. Losonczy, **P. Tsakalides**, and P. Poirazi, "[Artificial Neural Networks in Action for an Automated Cell-Type Classification of Biological Neural Networks](#)," *IEEE Transactions on Emerging Topics in Computational Intelligence*, vol. 5, no. 5, pp. 755-767, Oct. 2021, doi: 10.1109/TETCI.2020.3028581.
19. A. Aidini, G. Tsagkatakis, and **P. Tsakalides**, "[Tensor Decomposition Learning for Compression of Multidimensional Signals](#)," *IEEE Journal of Selected Topics in Signal Processing*, vol. 15, no. 3, pp. 476-490, April 2021, doi: 10.1109/JSTSP.2021.3054314.
20. G. Tzagkarakis, J. P. Nolan, and **P. Tsakalides**, "[Robust Nonlinear Compressive Sampling Using Symmetric Alpha-Stable Distributions](#)," *Signal Processing*, vol. 182, May 2021, doi: 10.1016/j.sigpro.2020.107944.
21. T. Geiller, B. Vancura, S. Terada, E. Troullinou, S. Chavlis, G. Tsagkatakis, **P. Tsakalides**, K. Ócsai, P. Poirazi, B. J. Rózsa, and A. Losonczy, "[Large-Scale 3D Two-Photon Imaging of Molecularly Identified CA1 Interneuron Dynamics in Behaving Mice](#)," *Neuron*, vol. 108, issue 5, 2020, pp. 968-983.e9, doi: 10.1016/j.neuron.2020.09.013.
22. R. Stivaktakis, G. Tsagkatakis, B. Moares, F. Abdalla, J. L. Starck, and **P. Tsakalides**, "[Convolutional Neural Networks for Spectroscopic Redshift Estimation on Euclid Data](#)," *IEEE Transactions on Big Data*, vol. 6, no. 3, pp. 460-476, September 2020, doi: 10.1109/TBDATA.2019.2934475.
23. R. Stivaktakis, G. Tsagkatakis, and **P. Tsakalides**, "[Semantic Predictive Coding with Arbitrated Generative Adversarial Networks](#)," *MDPI Machine Learning and Knowledge Extraction*, 2020, 2, 307-326; doi:10.3390/make2030017.

24. M. Aspri, G. Tsagkatakis, and **P. Tsakalides**, "[Distributed Training and Inference of Deep Learning Models for Multi-Modal Land Cover Classification](#)," *MDPI Remote Sensing*, Special Issue on Computer Vision and Deep Learning for Remote Sensing Applications, 2020, 12(17), 2670; doi:10.3390/rs121726702020.
25. G. Tzagkarakis, P. Charalampidis, S. Roubakis, A. Makrogiannakis, and **P. Tsakalides**, "[Quantifying the Computational Efficiency of Compressive Sensing in Smart Water Network Infrastructures](#)," *MDPI Sensors*, 2020, 20(11), 3299; doi.org/10.3390/s20113299.
26. M. Giannopoulos, A. Aidini, A. Pentari, K. Fotiadou, and **P. Tsakalides**, "[Classification of Compressed Remote Sensing Multispectral Images via Convolutional Neural Networks](#)," *MDPI Journal of Imaging*, Special Issue on Multispectral Imaging, 2020, 6, 24; doi:10.3390/jimaging6040024.
27. E. Troullinou, G. Tsagkatakis, G. Palagina, M. Papadopoulou, S. M. Smirnakis, and **P. Tsakalides**, "[Adversarial Dictionary Learning for a Robust Analysis and Modelling of Spontaneous Neuronal Activity](#)," *Neurocomputing*, 2020, doi: <https://doi.org/10.1016/j.neucom.2020.01.041>.
28. K. Fotiadou, G. Tsagkatakis, and **P. Tsakalides**, "[Snapshot High Dynamic Range Imaging via Sparse Representations and Feature Learning](#)," *IEEE Transactions on Multimedia*, vol. 22, no. 3, pp. 688-703, March 2020, doi: 10.1109/TMM.2019.2933333
29. G. Tsagkatakis, A. Aidini, K. Fotiadou, M. Giannopoulos, A. Pentari, and **P. Tsakalides**, "[Survey of Deep-Learning Approaches for Remote Sensing Observation Enhancement](#)," *MDPI Sensors*, 2019, 19, 3929; doi:10.3390/s19183929.
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33. G. Tzagkarakis, J. P. Nolan, and **P. Tsakalides**, "[Compressive Sensing Using Symmetric Alpha-Stable Distributions for Robust Sparse Signal Reconstruction](#)," *IEEE Transactions on Signal Processing*, vol. 67, no. 3, pp. 808-820, Feb. 2019, doi:10.1109/TSP.2018.2887400.
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35. 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.
36. 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.
37. 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*, vol. 54, no. 6, pp. 3548-3563, June 2016, doi: 10.1109/TGRS.2016.2520203.
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