# **Dionysis Kalogerias**

Yale University – Department of Electrical and Computer Engineering 17 Hillhouse Ave, RM 223, New Haven, CT 06511

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## **Research Interests**

Mathematical Optimization, Quantitative Risk, Statistical Learning, Decision under Uncertainty, Signal Processing Resource Allocation and Management, Autonomy, Robustness, Fairness, Trustworthiness

## **Employment**

<b>Yale University</b> Assistant Professor, Department of Electrical & Computer Engineering	<b>New Haven, CT</b> 07/2021 - Present	
Michigan State University Assistant Professor, Department of Electrical & Computer Engineering University of Pennsylvania Postdoctoral Researcher, Department of Electrical & Systems Engineering Hosts: Prof. George I. Pappas and Prof. Alejandro Ribeiro	East Lansing, MI 08/2020 - 06/2021 Philadelphia, PA 06/2019 - 07/2020	
		<b>Princeton University</b> Postdoctoral Research Associate, Department of Operations Research & Financial Engineering Host: Prof. Warren B. Powell
Education		
<b>Rutgers, The State University of New Jersey</b> PhD in Electrical & Computer Engineering (Double Distinction) Thesis Advisor: Prof. Athina Petropulu	Piscataway, NJ 05/2017	
University of Patras MS in Signal Processing & Communications, Graduate Program "SPCOMS" Thesis Advisor: Prof. Emmanouil Z. Psarakis	Patras, Greece 09/2012	
<b>University of Patras</b> Diploma (BS & MEng) in Computer Engineering & Informatics Thesis Advisor: Prof. Emmanouil Z. Psarakis	<b>Patras, Greece</b> 09/2010	
Selected Honors & Awards		
ICASSP Best Paper Award (sole winner)	2020	
Rutgers SOE Outstanding Graduate Student Award (PhD Distinction)	2017	
Rutgers ECE Graduate Program Academic Achievement Award (PhD Distinction)	2017	
Nominee for ICASSP Best Student Paper Award (16 nominees in total)	2016	
ICASSP Best Student Paper of the Special Sessions	2016	
Rutgers SOE TA/GA Professional Development Fund Award	2015	
Rutgers ECE Student Development Award	2015	
Gerondens Foundation Fellowship, Gerondens Foundation, Inc.	2014 - 2015	
Rutgers Leeds Fellowship	2013 2012 - 2013	

#### **Papers under Review or Preparation**

- [**T10**] S. Pougkakiotis, H. Hashmi, and **D. Kalogerias**, "*Data-Driven Learning of Two-Stage Beamformers in Passive IRS-Assisted Systems with Inexact Oracles*," October 2024 (under review).
- [T9] B. Saglam and D. Kalogerias, "Compatible Gradient Approximations for Actor-Critic Algorithms," May 2024 (under review).
- [T8] B. Saglam, Z. Yang, D. Kalogerias, and A. Karbasi, "Learning Task Representations from In-Context Learning," May 2024 (under review).

- [T7] N. Koumpis and D. Kalogerias, "A Distributionally Robust Estimator that Dominates the Empirical Average," June 2024 (to be submitted).
- [T6] S. Pougkakiotis, J. Gondzio and D. Kalogerias, "An Efficient Active-Set Method with Applications to Sparse Approximations and Risk Minimization," May 2024 (under review).
- [T5] K. Nikolakakis, G. Chantzialexiou, and D. Kalogerias, "FEDSTR: Money-In AI-Out | A Decentralized Marketplace for Federated Learning and LLM Training on the NOSTR Protocol," April 2024 (to be submitted).
- [T4] D. Kalogerias and S. Pougkakiotis, "Strong Duality in Risk-Constrained Nonconvex Functional Programming," September 2023 (under review).
- [T3] K. E. Nikolakakis, A. Karbasi, and D. Kalogerias, "Select without Fear: Almost All Mini-Batch Schedules Generalize Optimally," May 2023 (under review).
- **[T2] D. Kalogerias**, "*Risk-Aware Bayesian Hypothesis Testing*," under preparation.
- [T1] D. Kalogerias, "Noisy Linear Convergence of Stochastic Gradient Descent for CV@R Statistical Learning under Polyak-Lojasiewicz Conditions," under preparation.

#### **Journal Publications**

- [J16] K. E. Nikolakakis, A. Karbasi, and D. Kalogerias, "Select without Fear: Almost All Mini-Batch Schedules Generalize Optimally," SIAM Journal on Mathematics of Data Science (SIMODS), to appear in 2025.
- [J15] M. P. Chapman and D. Kalogerias, "Risk-Aware Stability of Linear Systems," IEEE Transactions on Automatic Control, vol. 70, no. 2, pp. 861 - 876, February 2025.
- [J14] A. Tsiamis, D. Kalogerias, A. Ribeiro, and G. J. Pappas, "Linear Quadratic Control with Risk Constraints," Automatica, vol. 174, January 2025.
- [J13] H. Hashmi, S. Pougkakiotis, and D. Kalogerias, "Model-Free Learning of Two-Stage Beamformers for Passive IRS-Aided Network Design," IEEE Transactions on Signal Processing, vol. 72, pp. 652 - 669, December 2023.
- [**J12**] S. Pougkakiotis and **D. Kalogerias**, "*A Zeroth-order Proximal Stochastic Gradient Method for Weakly Convex Stochastic Optimization*," SIAM Journal on Scientific Computing, vol. 45, no. 5, pp. A2679-A2702, 2023.
- [J11] S. Evmorfos, D. Kalogerias, and A. P. Petropulu, "Adaptive Discrete Motion Control for Mobile Relay Networks," Frontiers in Signal Processing, July 2022.
- [J10] D. Kalogerias and W. B. Powell, "Zeroth-order Stochastic Compositional Algorithms for Risk-Aware Learning," SIAM Journal on Optimization, vol. 32, no. 2, pp. 386-416, April 2022.
- [J9] K. E. Nikolakakis, D. Kalogerias, O. Sheffet, and A. D. Sarwate, "Quantile Multi-Armed Bandits: Optimal Best-Arm Identification and a Differentially Private Scheme," IEEE Journal on Selected Areas in Information Theory (JSAIT), Special Issue on Sequential, Active and Reinforcement Learning, vol. 2, no. 2, pp. 534-548, June 2021.
- [J8] K. E. Nikolakakis, D. Kalogerias, and A. D. Sarwate, "Predictive Learning on Hidden Tree-Structured Ising Models," Journal of Machine Learning Research (JMLR), vol. 22, no. 59, pp. 1-82, 2021.
- [J7] D. Kalogerias, M. Eisen, G. J. Pappas, and A. Ribeiro, "Model-Free Learning of Optimal Ergodic Policies in Wireless Systems," IEEE Transactions on Signal Processing, vol. 68, pp. 6272-6286, 2020.
- [J6] A. Dimas, D. Kalogerias, and A. P. Petropulu, "Cooperative Beamforming with Predictive Relay Selection for Urban mmWave Communications," IEEE Access, vol. 7, pp. 157057-157071, November 2019 (Patent Pending).
- [J5] D. Kalogerias and A. P. Petropulu, "Spatially Controlled Relay Beamforming," IEEE Transactions on Signal Processing, vol. 66, no. 24, pp. 6418 6433, December 2018.
- [J4] D. Kalogerias and A. P. Petropulu, "Uniform ε-Stability of Distributed Nonlinear Filtering over DNAs: Gaussian-Finite HMMs," IEEE Transactions on Signal & Information Processing over Networks (Special Issue on Inference & Learning over Networks), vol. 2, no. 4, pp. 461 - 476, December 2016.
- [J3] D. Kalogerias and A. P. Petropulu, "Grid-Based Filtering of Markov Processes Revisited: Recursive Estimation & Asymptotic Optimality," IEEE Transactions on Signal Processing, vol. 64, no. 16, pp. 4244 4259, July 2016.

- [J2] D. Kalogerias and A. P. Petropulu, "Asymptotically Optimal Discrete Time Nonlinear Filters From Stochastically Convergent State Process Approximations," IEEE Transactions on Signal Processing, vol. 63, no. 13, pp. 3522 – 3536, July 2015.
- [J1] D. Kalogerias and A. P. Petropulu, "Matrix Completion in Colocated MIMO Radar: Recoverability, Bounds & Theoretical Guarantees," IEEE Transactions on Signal Processing, vol. 62, no. 2, pp. 309 321, January 2014.

#### **Conference Publications (peer-reviewed)**

- [C32] P. Promponas, V. Valls, K. Nikolakakis, D. Kalogerias, and L. Tassiulas, "Throughput-Optimal Scheduling via Rate Learning," 63rd IEEE Conference on Decision and Control (CDC 2024), Milan, Italy, December 2024.
- [C31] G. Yaylali and D. Kalogerias, "Distributionally Robust Power Policies for Wireless Systems under Power Fluctuation Risk," 57th Asilomar Conference on Signals, Systems, and Computers (Asilomar 2024), Pacific Grove, CA, USA, October 2024.
- [C30] P. Okanovic, R. Waleffe, V. Mageirakos, K. E. Nikolakakis, A. Karbasi, D. Kalogerias, N. M. Gurel, and T. Rekatsinas, "Repeated Random Sampling for Minimizing the Time-to-Accuracy of Learning," 12th International Conference on Learning Representations (ICLR 2024), Vienna, Austria, May 2024.
- [C29] D. Kalogerias and S. Pougkakiotis, "Strong Duality Relations in Nonconvex Risk-Constrained Learning," 58th Conference on Information Sciences and Systems (CISS 2024), Princeton, NJ, USA, March 2024.
- [C28] G. Yaylali and D. Kalogerias, "Stochastic Resource Allocation via Dual Tail Waterfilling," 58th Conference on Information Sciences and Systems (CISS 2024), Princeton, NJ, USA, March 2024.
- [C27] P. Theodoropoulos, K. E. Nikolakakis, and D. Kalogerias, "Federated Learning under Restricted User Availability," 49th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2024), Seoul, Korea, April 2024.
- [C26] G. Yaylali and D. Kalogerias, "Robust and Reliable Resource Allocation via Tail Waterfilling," 24th IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC 2023), Shanghai, China, September 2023.
- [C25] H. Hashmi, S. Pougkakiotis, and D. Kalogerias, "Model-Free Learning of Optimal Beamformers for Passive IRS-Assisted Sumrate Maximization," 48th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2023), Rhodes, Greece, June 2023.
- [C24] K. E. Nikolakakis, F. Haddadpour, A. Karbasi, D. Kalogerias, "Beyond Lipschitz: Sharp Generalization and Excess Risk Bounds for Full-Batch GD," 11th International Conference on Learning Representations (ICLR 2023), Kigali, Rwanda, May 2023.
- [C23] K. E. Nikolakakis, F. Haddadpour, D. Kalogerias, A. Karbasi, "Black Box Generalization: Stability of Zeroth-order Learning," 36th Annual Conference on Neural Information Processing Systems (NeurIPS 2022), New Orleans, LA, USA, December 2022.
- [C22] N. Koumpis, A. Tsiamis, D. Kalogerias, "State-Output Risk-Constrained Quadratic Control of Partially Observed Linear Systems," 61st IEEE Conference on Decision and Control (CDC 2022), Cancun, Mexico, December 2022.
- [C21] D. Kalogerias, "Fast and Stable Convergence of Online SGD for CV@R-Based Risk-Aware Learning," 47th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2022), Singapore, May 2022.
- [C20] H. Hashmi, D. Kalogerias, "Model-Free Learning of Optimal Deterministic Resource Allocations in Wireless Systems via Action-Space Exploration," 31st IEEE International Workshop on Machine Learning for Signal Processing (MLSP 2021), Gold Coast, Queensland, Australia, November 2021.
- [C19] N. Koumpis, D. Kalogerias, "Uncertainty Principles in Risk-Aware Statistical Estimation," 60th IEEE Conference on Decision and Control (CDC 2021), Austin, TX, USA, December 2021.
- [C18] H. Kumar, D. Kalogerias, G. J. Pappas, and A. Ribeiro, "Actor-Only Deterministic Policy Gradient via Zerothorder Gradient Oracles in Action Space," IEEE International Symposium on Information Theory (ISIT 2021), Melbourne, Victoria, Australia, July 2021.
- [C17] A. Tsiamis, D. Kalogerias, L. F. O. Chamon, A. Ribeiro, and G. J. Pappas, "Risk-Constrained Linear-Quadratic Regulators," 59th IEEE Conference on Decision and Control (CDC 2020), Jeju Island, Republic of Korea, December 2020.

- [C16] D. Kalogerias, M. Eisen, G. J. Pappas, and A. Ribeiro, "Almost-Zero Duality Gaps in Model-Free Resource Allocation for Wireless Systems," 28th European Signal Processing Conference (EUSIPCO 2020), Amsterdam, Netherlands, January 2021.
- [C15] D. Kalogerias, L. F. O. Chamon, G. J. Pappas, and A. Ribeiro, "Better Safe than Sorry: Risk-Aware Nonlinear Bayesian Estimation," 45th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2020), Barcelona, Spain, May 2020 ("Best Paper Award").
- [C14] D. Kalogerias, M. Eisen, G. J. Pappas, and A. Ribeiro, "A Zeroth-order Learning Algorithm for Ergodic Optimization of Wireless Systems with No Models and No Gradients," 45th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2020), Barcelona, Spain, May 2020.
- [C13] K. E. Nikolakakis, D. Kalogerias, and A. D. Sarwate, "Learning Tree Structures from Noisy Data," 22nd International Conference on Artificial Intelligence and Statistics (AISTATS 2019), Naha, Okinawa, Japan, April 2019.
- [C12] A. Dimas, D. Kalogerias, C. Koumpouzi, and A. P. Petropulu, "Parameter Estimation for Hierarchical Channel Profiling," 5th IEEE Global Conference on Signal and Information Processing (GlobalSIP 2017), Montreal, Canada, November 2017.
- [C11] D. Kalogerias and A. P. Petropulu, "Enhancing QoS in Spatially Controlled Beamforming Networks via Distributed Stochastic Programming," 42nd IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2017), New Orleans, LA, USA, March 2017.
- [C10] D. Kalogerias and A. P. Petropulu, "Mobile Beamforming & Spatially Controlled Relay Communications," 41st IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2016), Shanghai, China, March 2016 ("Best Paper of the Special Sessions").
- [C9] D. Kalogerias and A. P. Petropulu, "Distributed Nonlinear Filtering of Partially Observed Markov Chains over WSNs: Truncating the ADMM," 49th Asilomar Conference on Signals, Systems & Computers (Asilomar 2015), Asilomar Hotel & Conference Grounds, Pacific Grove, CA, USA, November 2015.
- [C8] D. Kalogerias and A. P. Petropulu, "On Pathwise Convergence of Particle & Grid Based Nonlinear Filters: Feller vs Conditional Regularity," 53rd Annual Allerton Conference on Communication, Control, and Computing (Allerton 2015), Monticello, Illinois, September 29 - October 2, 2015.
- [C7] D. Kalogerias and A. P. Petropulu, "Nonlinear SpatioTemporal Channel Gain Map Tracking in Mobile Cooperative Networks," 16th IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC 2015), Stockholm, Sweden, June/July 2015.
- [C6] D. Kalogerias and A. P. Petropulu, "Mobi-Cliques for Improving Ergodic Secrecy in Fading Wiretap Channels under Power Constraints," 39th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2014), Florence, Italy, May 2014.
- [C5] D. Kalogerias and A. P. Petropulu, "RIP Bounds for Naively Subsampled Scrambled Fourier Sensing Matrices," 48th Annual Conference on Information Sciences & Systems (CISS 2014), Princeton, NJ, USA, March 2014.
- [C4] D. Kalogerias and A. P. Petropulu, "MC-MIMO Radar: Recoverability and Performance Bounds," 1st IEEE Global Conference on Signal and Information Processing (GlobalSIP 2013), Austin, TX, USA, December 2013.
- [C3] D. Kalogerias, S. Sun and A. P. Petropulu, "Sparse Sensing in Colocated MIMO Radar: A Matrix Completion Approach," 13th IEEE International Symposium on Signal Processing and Information Technology (ISSPIT 2013), Athens, Greece, December 2013 (invited).
- [C2] D. Kalogerias and A. P. Petropulu, "On the Coherence Properties of Random Euclidean Distance Matrices," 14th IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC 2013), Darmstadt, Germany, June 2013.
- [C1] D. Kalogerias, N. Chatzipanagiotis, M. M. Zavlanos and A. P. Petropulu, "Mobile Jammers for Secrecy Rate Maximization in Cooperative Networks," 38th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2013), Vancouver, Canada, May 2013.

## **Blogs, Preprints, Reports and Other Publications**

[**O7**] S. Pougkakiotis, J. Gondzio and **D. Kalogerias**, "An Active-Set Method for Sparse Approximations, Part II: General *Piecewise-Linear Terms*," technical report, available on *arXiv*, 2023.

- **[O6]** S. Pougkakiotis, J. Gondzio and **D. Kalogerias**, "An Active-Set Method for Sparse Approximations, Part I: Separable  $\ell_1$  Terms," technical report, available on arXiv, 2023.
- [**O5**] H. Kumar, **D. Kalogerias**, G. J. Pappas, and A. Ribeiro, "*Zeroth-order Deterministic Policy Gradient*," extended preprint, available on *arXiv*, 2020.
- [O4] D. Kalogerias, H. Kumar, G. J. Pappas, and A. Ribeiro, "Connections between Policy Gradient and Zeroth-order *Methods*," Blog Article: *https://www.dkalogerias.org/connections-aug2020/*, August 2020.
- [O3] K. E. Nikolakakis, D. Kalogerias, and A. D. Sarwate, "Optimal Rates for Learning Hidden Tree Structures," technical report, available on *arXiv*, 2019.
- [O2] D. Kalogerias and A. P. Petropulu, "Spatially Controlled Relay Beamforming: 2-Stage Optimal Policies," extended preprint, available on *arXiv*, 2017.
- [O1] D. Kalogerias and A. P. Petropulu, "Sequential Channel State Tracking & Spatiotemporal Channel Prediction in Mobile Wireless Sensor Networks," technical report, available on *arXiv*, 2015.

#### **Research Grants/Funding**

**AFRL/Carillon Technologies**, "Next Generation Small Satellite Technology Program" 09/2024 - 08/2026 | **\$300K** | PI: **D. Kalogerias** 

NSF CCF 2242215, "Risk-Aware Resource Allocation for Robust Wireless Autonomy"

08/2023 - 07/2026 | **\$600K** | PI: **D. Kalogerias** 

Microsoft Corporation, "Optimal Control under Uncertainly for Computer Systems"

04/2022 - 03/2023 | **\$150K** | PI: **D. Kalogerias** 

MSU Axia Institute/Dow Chemical Company, "AI-Inspired Supply Chain Network Analysis"

01/2021 - 12/2021 | \$81K | PI: D. Kalogerias

**NSF CCF 1526908**, "Spatiotemporally Varying Channel Map Estimation and Tracking in Wireless Networks" 09/01/ 2015 - 12/31/2020 | **\$516K**. | PI: A. P. Petropulu PI, Co-PI: W. Trappe (role: contribution as PhD student).

#### **Patents**

<b>US Patent 11,943,038</b> "Relay Beamforming with Predictive Relay Selection for Millimeter Wave Communications"	Issued 03/2024
Talks and Presentations	
Compatible Gradient Approximations for Actor-Critic Algorithms ICML, Workshop on Foundations of RL and Control (FoRLaC) Vienna, Austria	07/2024
Learning Task Representations from In-Context Learning ICML, Workshop on In-Context Learning (ICL) Vienna, Austria	07/2024
Strong Duality in Risk-Constrained Nonconvex Functional Programming International Symposium on Mathematical Programming (ISMP) Montreal, Canada Colloquium, College of Nanoscale, Science and Engineering, University at Albany, SUNY, NY, USA Seminar, Yale Institute for the Foundations of Data Science (FDS) Yale University, New Haven, CT, USA	07/2024 03/2024 11/2022
An Efficient Active-Set Method with Applications to Sparse Approximations and Risk Minimization International Symposium on Mathematical Programming (ISMP) Montreal, Canada	07/2024
Federated Learning Under Restricted User Availability IEEE ICASSP (regular session) Seoul, Korea IEEE ICASSP, (2nd) Workshop on Signal Processing for Autonomous Systems (SPAS) Seoul, Korea	04/2024 04/2024

Strong Duality Relations in Nonconvex Risk-Constrained Learning	
Princeton University, Princeton, NJ, USA	03/2024
Select without Fear: Almost All Mini-Batch Schedules Generalize Optimally Yale FDS, Workshop on Theory and Practice of Foundation Models Yale University, New Haven, CT, USA	10/2023
Reward-Based Reinforcement Learning with Risk Constraints ICML, Workshop on Duality Principles for Modern Machine Learning Honolulu, HI, USA	07/2023
Repeated Random Sampling for Minimizing the Time-to-Accuracy of Learning <b>ICML, Workshop on Data-centric Machine Learning Research (DMLR)</b> Honolulu, HI, USA	07/2023
Risk-Constrained Statistical Estimation and Control <b>RSS, Workshop on Risk-Aware Decision Making: From Optimal Control to RL</b> Columbia University, New York City, NY, USA	06/2022
Achieving Noisy Linear Convergence in CV@R Statistical Learning CWIT, Invited Session on Data Science and Information Theory, Ottawa, Ontario, Canada IEEE CDC, Workshop on Aware-Learning: How to Benefit from Priors, Austin, TX, USA	6/2022 12/2021
Risk-Aware Optimization for Statistical Estimation and Control <b>Seminar, Department of EE, Yale University</b>	02/2021
Almost-Zero Duality Gaps in Model-Free Resource Allocation for Wireless Systems EUSIPCO Amsterdam, Netherlands	1/2021
Risk-Aware MMSE Estimation	
INFORMS Annual Meeting, Virtual Online	11/2020
Better Safe than Sorry: Risk-Aware Nonlinear Bayesian Estimation IEEE ICASSP Barcelona, Spain	5/2020
Model-Free Learning of Resource Allocation Policies for Wireless Autonomy Seminar, Department of EE, Yale University Seminar, Department of ECE, Michigan State University	3/2020 1/2020
Zeroth-order Algorithms for Risk-Averse Optimization INFORMS Annual Meeting Seattle, WA, USA	10/2019
Zeroth-order Recursive Optimization of Mean-Semideviation Risk Measures The XV International Conference on Stochastic Programming Trondheim Norway	8/2019
Gradient-Based Recursive Risk-Averse Optimization Pappas Group Seminar, Department of ESE, University of Pennsylvania Alelab Seminar, Department of ESE, University of Pennsylvania	3/2019 3/2019
Recursive Optimization of Convex Risk Measures: Mean-Semideviation Models INFORMS Annual Meeting Phoenix, AZ, USA	11/2018
Recursive Optimization of Mean-Semideviation Risk Measures Workshop on Risk Management Approaches in Engineering Applications University of Florida, Gainesville, FL, USA Autonomous Systems and Control Research Group, Siemens, Princeton, NJ, USA	10/2018 6/2018
Spatially Controlled Relay Beamforming Seminar, Department of ECE, Stevens Institute of Technology Information Theory and Applications (ITA) Workshop (Graduation Day), San Diego, CA, USA	5/2017 2/2017
Enhancing QoS in Beamforming Networks: Mobile Beamformers and Optimal Motion Policies Workshop on Comm-Aware Control and Robotics IEEE CDC	
Las Vegas, NV, USA	12/2016

Mobile Beamforming & Spatially Controlled Relay Communications IEEE ICASSP Shanghai, China	3/2016
Distributed Nonlinear Filtering of Partially Observed Markov Chains over WSNs: Truncating the ADMM Asilomar Conference on Signals, Systems and Computers Pacific Grove, CA, USA	11/2015
On Pathwise Convergence of Particle & Grid Based Nonlinear Filters: Feller vs Conditional Regularity Allerton Conference on Communication, Control, and Computing Urbana, IL, USA	10/2015
Mobi-Cliques for Improving Ergodic Secrecy in Fading Wiretap Channels under Power Constraints IEEE ICASSP Florence, Italy	5/2014
On the Coherence Pronerties of Random Fuclidean Distance Matrices	.,
IFFE/ACM Workshop on Signal Processing Advances in Sensor Networks	
Philadelphia, PA, USA	4/2013
Teaching Experience	
Vale University Department of FCF	
"Detection and Estimation" (graduate)	Eall 2022 2023
Yale University Department of FCF	1 111 2022-2023
"Signals and Systems" (undergraduate)	Spring 2022-2024
Michigan State University Department of FCF	<i>Spring</i> 2022 2024
"Detection and Estimation" (graduate)	Spring 2021
Rutgers. The State University of New Jersey. Department of ECE	000000000000000000000000000000000000000
"Linear Systems and Signals" (head Teaching Assistant (TA), undergraduate)	Fall 2015
"Probability and Random Processes" (TA, undergraduate)	Spring 2015
"Stochastic Signals and Systems" (TA, graduate)	Fall 2013
University of Patras, Greece, Department of Computer Engineering & Informatics	
"Digital Signal Processing" (TA, undergraduate)	Spring 2012
"Digital Communications" (TA, undergraduate)	Fall 2011
Memberships, Technical Activities and Service	
Professional Organizations	
Senior Member, IEEE –Signal Processing Society, Control Systems Society– Member, Mathematical Optimization Society (MOS)	
External Service (Editorial, Conferences, etc.)	
Program Committee, AAAI 2025	08/2024
<b>Chair, ISMP 2024</b> , session "Continuous Stochastic Programming 2"	07/2024
Lead Guest Editor, Frontiers in Signal Processing—Signal Processing for Communications Sec Article Collection on "Emerging Optimization, Learning and Signal Processing for Next Comparison Wireless Communications and Networking"	etion
Mentor ICASSP 2024 Micro Montoring Experience Program (MiME)	00/2024
Chair ICASSP 2024, Incromentating Experience Program (Winvil)	04/2024
Chair, ICASSP 2024, nectore session "Robust and Sustainable Machine Learning"	04/2024
Chair, ICASSP 2022, poster session "Divergences and Ontimization"	05/2024
NSF Panel/Reviewer Service	2023 - Present
<b>Co-organizer &amp; Chair. CDC 2022.</b> invited session on "Risk-Aware Learning. Verification and Control	l" 12/2022
<b>Doctoral Committee:</b> P. Theodoropoulos, University of Patras (PhD advisor: K. Berberidis)	0.9/2024
Dissertation Exam Committees:	,2021
S. Evmorfos, Rutgers University (PhD advisor: A. Petropulu)	10/2024
K. Nikolakakis, Rutgers University (PhD advisor: A. Sarwate)	04/2021

Departmental/School Service	
Faculty Search Committees	2021 - Present
Undergraduate Curriculum Committee	2023 - 2024
Dissertation Exam Committees:	
G. Velegkas (PhD Advisor: A. Karbasi)	03/2025
A. Mudvari (PhD Advisor: L. Tassiulas)	12/2024
Area Exam Committees:	
G. Yaylali (as PhD advisor/chair)	02/2025
I. Panitsas (PhD Advisor: L. Tassiulas)	12/2024
N. Almani (PhD Advisor: S. Saxena)	11/2024
H. Hahsmi (as PhD advisor/chair)	01/2024
P. Promponas (PhD Advisor: L. Tassiulas)	12/2022
G. Velegkas (PhD Advisor: A. Karbasi)	07/2022
Formal/Informal Mentoring: More than ten (10) PhD students and postdocs from Yale ECE/CS	2021 - Present

# Reviewing

#### **Journal Reviewer Activity** (nonexhaustive list):

SIAM Journal on Optimization (SIOPT), IEEE Transactions on Signal Processing (TSP), IEEE Signal Processing Magazine (SPM), IEEE Transactions on Automatic Control (TAC), IEEE Journal on Selected Areas in Information Theory (JSAIT), IEEE Transactions on Signal & Information Processing over Networks (TSIPN), IEEE Transactions on Wireless Communications (TWC), Proceedings of the IEEE, IEEE Signal Processing Letters (SPL), IEEE Control Systems Letters, IEEE Sensors Journal, MDPI Entropy, IET Signal Processing, EURASIP Journal on Wireless Communications and Networking

#### Conference Reviewer Activity (nonexhaustive list):

IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), IEEE Conference on Decision and Control (CDC), Conference on Neural Information Processing Systems (NeurIPS), International Conference on Machine Learning (ICML), IEEE International Symposium on Information Theory (ISIT), American Control Conference (ACC), IEEE International Workshop on Machine Learning for Signal Processing (IEEE MLSP), Conference on Information Sciences and Systems (CISS), IEEE Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP), IEEE Global Communications Conference (GLOBECOM), IEEE Wireless Communications & Networking Conference (WCNC), European Signal Processing Conference (EUSIPCO)

#### **Current and Former Trainees**

PhD Students		
Hassaan Hashmi ( <b>post-</b> candidacy)	2021 - Present	
Gokberk Yaylali (pre-candidacy)	2022 - Present	
Baturay Saglam (pre-candidacy)	2023 - Present	
Seyed Abolfazl Rahimi (pre-candidacy)	2023 - Present	
Alumni		
Konstantinos Nikolakakis, Postdoc	07/2021 - 09/2024	
Current Position: Machine Learning Scientist, SES AI, Boston, MA, USA		
Spyridon Pougkakiotis, Postdoc	04/2022 - 03/2023	
<b>Current Position:</b> <i>Lecturer in Mathematics</i> (equiv. to assistant professor)		
Department of Mathematics, King's College London, UK		
Periklis Theodoropoulos, Postgraduate Associate	10/2021 - 10/2023	
Current Position: PhD Student		
Department of Computer Engineering and Informatics		
University of Patras, Greece		

# Languages

English (Fluent), Greek (Native)

# **Citizenships** (and related)

Hellenic (Citizen of Greece), US Permanent Resident (Green Card Holder)