



Panayotis Mertikopoulos

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PERSONAL INFORMATION

Name / Surname Panayotis Mertikopoulos
Place of Birth Athens, Greece
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RESEARCH INTERESTS

Game theory; learning; optimization; networks; artificial intelligence

EDUCATION

2019 **Université Grenoble Alpes** Grenoble, FR
Habilitation à Diriger des Recherches (HDR) in Computer Science and Applied Mathematics
Thesis: [Online Optimization and Learning in Games: Theory and Applications](#)

2007–2010 **University of Athens, Department of Physics** Athens, GR
Doctorate of Philosophy
Thesis: [Stochastic Perturbations in Game Theory and Applications to Networks](#)

2003–2006 **Brown University, Department of Mathematics** Providence, RI, USA
Master of Science in Mathematics (May 2005) with a GPA of 4.0/4.0 (*summa cum laude*)
Admitted to Candidacy for the Ph.D. degree in Mathematics (M.Phil. equivalent; Sept. 2005)

1998–2003 **University of Athens, Department of Physics** Athens, GR
Ptychion degree in Physics (July 2003) with a GPA of 9.1/10 (*summa cum laude*)
Dissertation: [Gauss's law and Residue Calculus in the Framework of de Rham Cohomology](#)

PROFESSIONAL EXPERIENCE

2011–present **CNRS – French National Center for Scientific Research** Grenoble, FR
Tenured researcher (*chargé de recherche*) in the Laboratoire d'Informatique de Grenoble

2019, fall **École Polytechnique Fédérale de Lausanne (EPFL)** Lausanne, CH
Visiting professor at the Laboratory for Information and Inference Systems

2018, spring **UC Berkeley** Berkeley, CA, USA
Visiting scientist at the Simons Institute for the Theory of Computing

2016, fall **LUISS Guido Carli University** Rome, IT
Visiting professor

2010–2011 **École Polytechnique, Department of Economics** Paris, FR
Post-doctoral researcher in game theory

DISTINCTIONS, GRANTS, AND FELLOWSHIPS

DISTINCTIONS AND AWARDS

2020 Spotlight talk at ICLR 2020 for [45]

2018 Outstanding reviewer award at NIPS 2018

2017 INFORMS George Nicholson and Applied Probability Society award finalist for [7]

2012 Best paper award at NETGCOOP 2012 for [87]

2003 Valedictorian in the Physics Department of the University of Athens

GRANTS

2016–2020	ORACLESS – <i>Online resource allocation for unpredictable large-scale wireless systems</i> French National Research Agency starting grant (ANR JCJC), principal investigator (PI)
2017–2020	GAMENET – <i>European Network for Game Theory</i> EU COST action; working group chair
2017–2018	ULTRON – <i>Ultra-low latency scheduling via online learning</i> Huawei FLAGSHIP grant, PI
2018	MixedGAN – <i>Mixed-strategy generative adversarial networks</i> CNRS exploratory grant (PEPS I3A); co-PI
2014–2017	GAGA – <i>Geometric aspects of games</i> ANR grant; co-PI
2017	HEAVY.NET – <i>Optimization and analysis of heavily congested networks</i> PGMO/PRMO grant; PI
2016	REAL.net – <i>Resource allocation in dynamic network environments</i> CNRS exploratory grant (PEPS JCJC); PI
2014–2015	GATHERING – <i>Game theory, evolution and randomness in networks and graphs</i> CNRS exploratory grant (PEPS HuMaIn); PI
2012–2013	LACODS – <i>Learning algorithms for control and optimization in distributed systems</i> MSTIC (French competitiveness pole) career development grant; PI

FELLOWSHIPS

2003–2004	Brown University Providence, RI, USA <i>Dean's Fellow</i> (fellowship awarded to meritorious incoming graduate students)
2003–2006	Embeirikeion Foundation Athens, Greece Three-year fellowship in support of mathematical studies abroad
2003	Greek State Scholarship Foundation Athens, Greece Honorary fellowship for graduating valedictorian in 2003

ADVISING AND TEACHING

Post-docs	<ul style="list-style-type: none"> • Olivier Bilenne (2018–present): MIMO system optimization (ANR ORACLESS) • Amélie Héliou (2017–2018): learning for congestion games (ULTRON) • Luigi Vigneri (2017–2018): scalable latency minimization (ULTRON) • Ioannis Stiakogiannakis (2014–2015): game theory for MIMO (ANR NETLEARN) • Nof Abuzainab (2014–2015): cognitive system optimization (funded by Inria)
Ph.D. students	<ul style="list-style-type: none"> • Benjamin Roussillon (2018–present; co-supervised with P. Loiseau) Topic: “<i>Classification en présence de données adverses : modèles et solutions</i>” • Kimon Antonakopoulos (2017–present; co-supervised with E. V. Belmega) Topic: “<i>Online learning in variational inequality problems</i>” • Bruno Donassolo (2017–present; co-supervised with A. Legrand and I. Fajjari) Topic: “<i>Decentralized management of applications in Fog computing environments</i>” • Alexandre Marcstel (2015–2019; co-supervised with E. V. Belmega) Topic: “<i>Allocation de puissance en ligne dans un réseau IoT dynamique et non-prédictible</i>”
Graduate level	Game theory, learning, optimization (ENS Lyon)
Undergraduate level	Probability theory, stochastic processes; advanced algorithms (U. Athens)
Seminars/Schools	Trinity College Dublin (2019): Summer school on online optimization for wireless systems UC Berkeley (2018): Tutorial course on real-time decision-making RESCOM (2012): Summer school on the applications of game theory to data networks

COMMITTEES, SERVICES AND RESEARCH NETWORKS

EDITORIAL ACTIVITIES AND TECHNICAL CHAIRING

Associate editor	Journal on Dynamics and Games (JDG) Methodology and Computing in Applied Probability (MCAP)
Guest editor	Dynamic Games and Applications (DGAA)
Reviewer	<i>Advances in Applied Probability, Annals of Operations Research, Dynamic Games and Applications, Games and Economic Behavior, IEEE Access, IEEE Journal on Selected Areas in Communications, IEEE Transactions on Information Theory / Signal Processing / Communications / Wireless Communications, IEEE/ACM Transactions on Networking, Journal of Economic Theory, Journal of Optimization Theory and Applications, Mathematics of Operations Research, Mathematical Programming, Operations Research, SIAM Journal on Control and Optimization, SIAM Journal on Optimization, Theoretical Economics, ...</i>
PC chair	Area chair for <i>NeurIPS 2019</i> TPC co-chair for <i>WiOpt 2014</i>
PC member	NeurIPS, COLT, ICML, AAAI, SODA, ...

COMMITTEES AND SERVICES

2017–present	Working group coordinator of the European Network for Game Theory (GAMENET).
2014–present	Member of the steering committee (<i>comité de liaison</i>) of the optimization and decision theory group of the French Society for Industrial and Applied Mathematics (SMAI–MODE)
2011–present	Graduate students liaison (<i>chargé de mission doctorants</i>) for the Laboratoire d'Informatique de Grenoble

CONFERENCE ORGANIZATION

2019, Chania (GR)	Co-organizer of the workshop “Twenty years of the Price of Anarchy” (20PoA)
2018, Paris (FR)	Co-organizer of the 2018 Paris Symposium on Game Theory
2018, Grenoble (FR)	General co-chair of the 2018 French Days on Optimization and Decision Science (“ <i>Journées SMAI–MODE 2018</i> ”)
2018, Vienna (AT)	Co-organizer of the 2018 Workshop on Games, Dynamics and Optimization (GDO 2018)
2016, Luchon (FR)	General co-chair of the GEL 2016 workshop on “ <i>Geometry, Evolution and Learning in Games</i> ”
2015, Seignosse (FR)	Organizer of the mini-symposium “ <i>Games, Learning and Applications</i> ” in SMAI 2015
2014, Barcelona (ES)	Co-organizer of the track “ <i>Dynamics and Learning in Games</i> ” in IFORS 2014
2013, Grenoble (FR)	General co-chair of the 2013 Intl. Workshop on Algorithmic Game Theory (AlgoGT 2013)
2013, Tsukuba (JP)	Publications chair of the 11th Intl. Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt 2013)
2012, Cargèse (FR)	Publications chair of the 7th Intl. Conference on Performance Evaluation, Methodologies and Tools (Valuetools 2013)

PARTICIPATION IN RESEARCH PROJECTS AND NETWORKS

2016–2018	LEARN – <i>Learning algorithms for games and applications</i> Franco-Chilean Network of Excellence, co-financed by ECOS-Sud and CONICYT
2013–2017	NETLEARN – <i>Learning algorithms orchestration for mobile networks resource management</i> Research project financed by the French National Research Agency (ANR)
2012–2015	NEWCOM# – <i>Network of excellence in wireless communications</i> Network of Excellence formed under FP7
2012–2016	ADGO – <i>Algorithms and dynamics in games and optimization</i> Franco-Chilean network funded by the Chilean National Research Agency (CONICYT)
2012–2016	CROWN – <i>Optimal control of self-organized wireless networks</i> Research project co-financed by EU and Greek national funds under the THALES initiative

2006–2009 **NET-REFOUND** – *Network research foundations and trends*
Specific Targeted Research Project funded by the EU under FP6

INVITED TALKS AND TUTORIALS (PAST 3 YEARS ONLY)

2019	LUISS Guido Carli University “From Hannan to Nash: cycles, learning, and equilibrium”	Rome, Italy
2019	CONNECT Summer School on Machine Learning for Communications “Online learning and optimization for wireless systems”	Dublin, Ireland
2019	NPCG 2019 – Network, Population and Congestion Games “No-regret learning in games”	Paris, France
2019	GDO 2019 – Games, Dynamics and Optimization “Hessian barrier algorithms for linearly constrained optimization problems”	Cluj-Napoca, Romania
2019	OSL 2019 – Optimization and Statistical Learning “Extra-gradient methods for variational inequalities”	Les Houches, France
2019	École polytechnique fédérale de Lausanne (EPFL) “Going the extra (gradient) mile in GAN training”	Lausanne, Switzerland
2019	Criteo AI Lab “Applications of multi-agent learning to computational advertising”	Paris, France
2018	PGMO Days 2018 “Learning dynamics for routing problems”	Paris, France
2018	Trinity College “Efficient network utility maximization algorithms”	Dublin, Ireland
2018	National Technical University of Athens (Athens Polytechnic) “Traffic in congested networks: Equilibrium, efficiency, and dynamics”	Athens, Greece
2018	GDO 2018 – Games, Dynamics and Optimization “Bandit learning in concave N -person games”	Vienna, Austria
2018	Google Inc. “Accelerated and optimistic methods for learning”	Mountain View, CA, USA
2018	UC Berkeley – Simons Institute for the Theory of Computing “Online learning in games”	Berkeley, CA, USA
2017	University of Aix–Marseille “Convergence and non-convergence in game-theoretic learning”	Marseille, France
2017	PGMO Days 2017 “The price of anarchy in high and low traffic”	Paris, France
2017	GDR ISIS workshop on Game Theory, Optimization and Learning “Game theory meets signal processing (and feels no regret)”	Paris, France
2017	Emergent and Self-Adaptive Systems Workshop – panelist “Design and validation of future computer systems: Theory and practice”	Lancaster, UK
2017	Lancaster University “Multi-agent online learning: Game theory meets machine learning”	Lancaster, UK
2017	Paris Game Theory Seminar (Institut Henri Poincaré) “No-regret learning in games”	Paris, France
2017	Erice 2017 – Stochastic Methods in Game Theory “How bad is selfish routing in highly congested networks?”	Erice, Italy
2017	Stanford University “Learning in games via reinforcement and regularization”	Stanford, CA, USA

PUBLICATIONS AND SCIENTIFIC OUTPUT

SOFTWARE (1)

- [1] P. Mertikopoulos, “GameSeer: visualization software for game dynamics.” Available under the GNU public license at: <http://polaris.imag.fr/panayotis.mertikopoulos/files/GameSeer.zip>, 2014.

DISSERTATIONS (3)

- [2] P. Mertikopoulos, *Online Optimization and Learning in Games: Theory and Applications*. Habilitation à Diriger des Recherches (HDR) en Informatique et Mathématiques Appliquées, Université Grenoble-Alpes, December 2019.
- [3] P. Mertikopoulos, *Stochastic Perturbations in Game Theory and Applications to Networks*. PhD thesis, National and Kapodistrian University of Athens, November 2010.
- [4] P. Mertikopoulos, *Gauss’s Law and Residue Calculus in the Framework of de Rham Cohomology*. Major thesis, National and Kapodistrian University of Athens, May 2003.

WORKING/SUBMITTED PAPERS (8)

- [5] P. Mertikopoulos, H. H. Nax, and B. S. R. Pradelski, “Quick or cheap? Breaking points in dynamic markets.” <https://arxiv.org/abs>, 2020.
- [6] R. I. Boş, P. Mertikopoulos, M. Staudigl, and P. T. Vuong, “Forward-backward-forward methods with variance reduction for stochastic variational inequalities.” <https://arxiv.org/abs/1902.03355>, 2019.
- [7] Z. Zhou, P. Mertikopoulos, N. Bambos, P. W. Glynn, and C. Tomlin, “Multi-agent online learning with imperfect information.” Under review, 2018.
- [8] B. Duvocelle, P. Mertikopoulos, M. Staudigl, and D. Vermeulen, “Learning in time-varying games.” <https://arxiv.org/abs/1809.03066>, 2018.
- [9] Z. Zhou, P. Mertikopoulos, N. Bambos, P. W. Glynn, and Y. Ye, “Distributed stochastic optimization with large delays.” Under review, 2018.
- [10] E. V. Belmega, P. Mertikopoulos, R. Negrel, and L. Sanguinetti, “Online convex optimization and no-regret learning: Algorithms, guarantees and applications.” <https://arxiv.org/abs/1804.04529>, 2018.
- [11] I. Stiakogiannakis, P. Mertikopoulos, and C. Touati, “Power control via online learning in non-stationary MIMO networks.” <http://arxiv.org/abs/1503.02155>, 2018.
- [12] P. Mertikopoulos, A. L. Moustakas, and A. Tzanakaki, “Boltzmann meets Nash: Energy-efficient routing in optical networks under uncertainty.” <https://arxiv.org/abs/1605.01451>, 2016.

JOURNAL PAPERS (32)

- [13] Z. Zhou, P. Mertikopoulos, N. Bambos, S. Boyd, and P. W. Glynn, “On the convergence of mirror descent beyond stochastic convex programming,” *SIAM Journal on Optimization*, forthcoming.
- [14] Z. Zhou, P. Mertikopoulos, A. L. Moustakas, N. Bambos, and P. W. Glynn, “Robust power management via learning and game design,” *Operations Research*, forthcoming.
- [15] R. Colini-Baldeschi, R. Cominetti, P. Mertikopoulos, and M. Scarsini, “When is selfish routing bad? The price of anarchy in light and heavy traffic,” *Operations Research*, forthcoming.
- [16] A. Marcastel, E. V. Belmega, P. Mertikopoulos, and I. Fijalkow, “Online power optimization in feedback-limited, dynamic and unpredictable IoT networks,” *IEEE Trans. Signal Process.*, vol. 67, pp. 2987–3000, June 2019.
- [17] I. M. Bomze, P. Mertikopoulos, W. Schachinger, and M. Staudigl, “Hessian barrier algorithms for linearly constrained optimization problems,” *SIAM Journal on Optimization*, vol. 29, no. 3, pp. 2100–2127, 2019.
- [18] P. Mertikopoulos and Z. Zhou, “Learning in games with continuous action sets and unknown payoff functions,” *Mathematical Programming*, vol. 173, pp. 465–507, January 2019.
- [19] P. Mertikopoulos and M. Staudigl, “Stochastic mirror descent dynamics and their convergence in monotone variational inequalities,” *Journal of Optimization Theory and Applications*, vol. 179, pp. 838–867, December 2018.
- [20] P. Mertikopoulos and W. H. Sandholm, “Riemannian game dynamics,” *Journal of Economic Theory*, vol. 177, pp. 315–364, September 2018.
- [21] P. Mertikopoulos and M. Staudigl, “On the convergence of gradient-like flows with noisy gradient input,” *SIAM Journal on Optimization*, vol. 28, pp. 163–197, January 2018.
- [22] M. Bravo and P. Mertikopoulos, “On the robustness of learning in games with stochastically perturbed payoff observations,” *Games and Economic Behavior*, vol. 103, John Nash Memorial issue, pp. 41–66, May 2017.

- [23] P. Mertikopoulos, E. V. Belmega, R. Negrel, and L. Sanguinetti, "Distributed stochastic optimization via matrix exponential learning," *IEEE Trans. Signal Process.*, vol. 65, pp. 2277–2290, May 2017.
- [24] J. Kwon and P. Mertikopoulos, "A continuous-time approach to online optimization," *Journal of Dynamics and Games*, vol. 4, pp. 125–148, April 2017.
- [25] A. S. Shafiq, P. Mertikopoulos, S. Glisic, and Y. M. Fang, "Semi-cognitive radio networks: A novel dynamic spectrum sharing mechanism," *IEEE Trans. on Cogn. Commun. Netw.*, vol. 3, pp. 97–111, March 2017.
- [26] S. D'Oro, L. Galluccio, P. Mertikopoulos, G. Morabito, and S. Palazzo, "Auction-based resource allocation in OpenFlow multi-tenant networks," *Computer Networks*, vol. 115, pp. 29–41, March 2017.
- [27] S. Perkins, P. Mertikopoulos, and D. S. Leslie, "Mixed-strategy learning with continuous action sets," *IEEE Trans. Autom. Control*, vol. 62, pp. 379–384, January 2017.
- [28] P. Mertikopoulos and W. H. Sandholm, "Learning in games via reinforcement and regularization," *Mathematics of Operations Research*, vol. 41, pp. 1297–1324, November 2016.
- [29] A. L. Moustakas, P. Mertikopoulos, and N. Bambos, "Power optimization in random wireless networks," *IEEE Trans. Inf. Theory*, vol. 62, pp. 5030–5058, September 2016.
- [30] B. Gaujal and P. Mertikopoulos, "A stochastic approximation algorithm for stochastic semidefinite programming," *Probability in the Engineering and Informational Sciences*, vol. 30, pp. 431–454, July 2016.
- [31] P. Mertikopoulos and Y. Viosat, "Imitation dynamics with payoff shocks," *International Journal of Game Theory*, vol. 45, pp. 291–320, March 2016.
- [32] P. Mertikopoulos and E. V. Belmega, "Learning to be green: Robust energy efficiency maximization in dynamic MIMO-OFDM systems," *IEEE J. Sel. Areas Commun.*, vol. 34, pp. 743 – 757, April 2016.
- [33] P. Mertikopoulos and A. L. Moustakas, "Learning in an uncertain world: MIMO covariance matrix optimization with imperfect feedback," *IEEE Trans. Signal Process.*, vol. 64, pp. 5–18, January 2016.
- [34] R. Laraki and P. Mertikopoulos, "Inertial game dynamics and applications to constrained optimization," *SIAM Journal on Control and Optimization*, vol. 53, pp. 3141–3170, October 2015.
- [35] S. D'Oro, P. Mertikopoulos, A. L. Moustakas, and S. Palazzo, "Interference-based pricing for opportunistic multi-carrier cognitive radio systems," *IEEE Trans. Wireless Commun.*, vol. 14, pp. 6536–6549, December 2015.
- [36] G. Bacci, E. V. Belmega, P. Mertikopoulos, and L. Sanguinetti, "Energy-aware competitive power allocation for heterogeneous networks under QoS constraints," *IEEE Trans. Wireless Commun.*, vol. 14, pp. 4728–4742, September 2015.
- [37] P. Coucheney, B. Gaujal, and P. Mertikopoulos, "Penalty-regulated dynamics and robust learning procedures in games," *Mathematics of Operations Research*, vol. 40, pp. 611–633, August 2015.
- [38] P. Mertikopoulos and E. V. Belmega, "Transmit without regrets: online optimization in MIMO-OFDM cognitive radio systems," *IEEE J. Sel. Areas Commun.*, vol. 32, pp. 1987–1999, November 2014.
- [39] R. Laraki and P. Mertikopoulos, "Higher order game dynamics," *Journal of Economic Theory*, vol. 148, pp. 2666–2695, November 2013.
- [40] P. Mertikopoulos, E. V. Belmega, A. L. Moustakas, and S. Lasaulce, "Distributed learning policies for power allocation in multiple access channels," *IEEE J. Sel. Areas Commun.*, vol. 30, pp. 96–106, January 2012.
- [41] C. Pawlowitsch, P. Mertikopoulos, and N. Ritt, "Neutral stability, drift, and the diversification of languages," *Journal of Theoretical Biology*, vol. 287, pp. 1–12, July 2011.
- [42] P. Kazakopoulos, P. Mertikopoulos, A. L. Moustakas, and G. Caire, "Living at the edge: a large deviations approach to the outage MIMO capacity," *IEEE Trans. Inf. Theory*, vol. 57, pp. 1984–2007, April 2011.
- [43] P. Mertikopoulos and A. L. Moustakas, "The emergence of rational behavior in the presence of stochastic perturbations," *The Annals of Applied Probability*, vol. 20, pp. 1359–1388, July 2010.
- [44] P. Mertikopoulos and A. L. Moustakas, "Correlated anarchy in overlapping wireless networks," *IEEE J. Sel. Areas Commun.*, vol. 26, pp. 1160–1169, September 2008.

CONFERENCE PAPERS (51)

- [45] K. Antonakopoulos, E. V. Belmega, and P. Mertikopoulos, "Online and stochastic optimization beyond Lipschitz continuity: A Riemannian approach," in *ICLR '20: Proceedings of the 2020 International Conference on Learning Representations*, 2020.
- [46] K. Antonakopoulos, E. V. Belmega, and P. Mertikopoulos, "An adaptive mirror-prox algorithm for variational inequalities with singular operators," in *NeurIPS '19: Proceedings of the 33rd International Conference on Neural Information Processing Systems*, 2019.
- [47] Y.-G. Hsieh, F. Iutzeler, J. Malick, and P. Mertikopoulos, "On the convergence of single-call stochastic extra-gradient meth-

- ods,” in *NeurIPS '19: Proceedings of the 33rd International Conference on Neural Information Processing Systems*, 2019.
- [48] N. Liakopoulos, A. Destounis, G. Paschos, T. Spyropoulos, and P. Mertikopoulos, “Cautious regret minimization: Online optimization with long-term budget constraints,” in *ICML '19: Proceedings of the 36th International Conference on Machine Learning*, 2019.
- [49] P. Mertikopoulos, B. Lecouat, H. Zenati, C.-S. Foo, V. Chandrasekhar, and G. Piliouras, “Optimistic mirror descent in saddle-point problems: Going the extra (gradient) mile,” in *ICLR '19: Proceedings of the 2019 International Conference on Learning Representations*, 2019.
- [50] A. Marcastel, E. V. Belmega, P. Mertikopoulos, and I. Fijalkow, “Gradient-free online resource allocation algorithms for dynamic wireless networks,” in *SPAWC '19: Proceedings of the 2019 IEEE International Workshop on Signal Processing Advances in Wireless Communications*, 2019.
- [51] M. Staudigl and P. Mertikopoulos, “Convergent noisy forward-backward-forward algorithms in non-monotone variational inequalities,” in *LSS '19: Proceedings of the 15th IFAC Symposium on Large Scale Complex Systems*, 2019.
- [52] L. Vigneri, G. Paschos, and P. Mertikopoulos, “Large-scale network utility maximization: Countering exponential growth with exponentiated gradients,” in *INFOCOM '19: Proceedings of the 38th IEEE International Conference on Computer Communications*, 2019.
- [53] I. Fajjari, B. Donassolo, A. Legrand, and P. Mertikopoulos, “Load-aware provisioning of IoT services on fog computing platform,” in *ICC '19: Proceedings of the 2019 IEEE International Conference on Communications*, 2019.
- [54] B. Donassolo, I. Fajjari, A. Legrand, and P. Mertikopoulos, “A fog-based framework for IoT service provisioning,” in *CCNC '19: Proceedings of the 16th IEEE International Conference on Consumer Communications & Networking*, 2019.
- [55] M. Bravo, D. S. Leslie, and P. Mertikopoulos, “Bandit learning in concave N -person games,” in *NIPS '18: Proceedings of the 32nd International Conference on Neural Information Processing Systems*, 2018.
- [56] Z. Zhou, P. Mertikopoulos, S. Athey, N. Bambos, P. W. Glynn, and Y. Ye, “Learning in games with lossy feedback,” in *NIPS '18: Proceedings of the 32nd International Conference on Neural Information Processing Systems*, 2018.
- [57] R. I. Boş, P. Mertikopoulos, M. Staudigl, and P. T. Vuong, “On the convergence of stochastic forward-backward-forward algorithms with variance reduction in pseudo-monotone variational inequalities,” in *NIPS' 18: Workshop on Smooth Games, Optimization and Machine Learning (SGO&ML)*, 2018.
- [58] A. Ward, Z. Zhou, P. Mertikopoulos, and N. Bambos, “Power control with random delays: Robust feedback averaging,” in *CDC '18: Proceedings of the 57th IEEE Annual Conference on Decision and Control*, 2018.
- [59] Z. Zhou, P. Mertikopoulos, N. Bambos, P. W. Glynn, Y. Ye, J. Li, and F.-F. Li, “Distributed asynchronous optimization with unbounded delays: How slow can you go?,” in *ICML '18: Proceedings of the 35th International Conference on Machine Learning*, 2018.
- [60] M. Leconte, G. Paschos, P. Mertikopoulos, and U. Kozat, “A resource allocation framework for network slicing,” in *INFOCOM '18: Proceedings of the 37th IEEE International Conference on Computer Communications*, 2018.
- [61] P. Mertikopoulos, C. H. Papadimitriou, and G. Piliouras, “Cycles in adversarial regularized learning,” in *SODA '18: Proceedings of the 29th annual ACM-SIAM Symposium on Discrete Algorithms*, 2018.
- [62] R. Colini-Baldeschi, R. Cominetti, P. Mertikopoulos, and M. Scarsini, “The asymptotic behavior of the price of anarchy,” in *WINE 2017: Proceedings of the 13th Conference on Web and Internet Economics*, 2017.
- [63] J. Cohen, A. Héliou, and P. Mertikopoulos, “Learning with bandit feedback in potential games,” in *NIPS '17: Proceedings of the 31st International Conference on Neural Information Processing Systems*, 2017.
- [64] Z. Zhou, P. Mertikopoulos, N. Bambos, S. Boyd, and P. W. Glynn, “Stochastic mirror descent for variationally coherent optimization problems,” in *NIPS '17: Proceedings of the 31st International Conference on Neural Information Processing Systems*, 2017.
- [65] Z. Zhou, P. Mertikopoulos, N. Bambos, P. W. Glynn, and C. Tomlin, “Countering feedback delays in multi-agent learning,” in *NIPS '17: Proceedings of the 31st International Conference on Neural Information Processing Systems*, 2017.
- [66] J. Cohen, A. Héliou, and P. Mertikopoulos, “Hedging under uncertainty: Regret minimization meets exponentially fast convergence,” in *SAGT '17: Proceedings of the 10th International Symposium on Algorithmic Game Theory*, 2017.
- [67] A. L. Moustakas, P. Mertikopoulos, Z. Zhou, and N. Bambos, “Least action routing: Identifying the optimal path in a wireless relay network,” in *PIMRC'17: 28th annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, 2017.
- [68] P. Mertikopoulos and M. Staudigl, “Convergence to Nash equilibrium in continuous games with noisy first-order feedback,” in *CDC '17: Proceedings of the 56th IEEE Annual Conference on Decision and Control*, 2017.
- [69] Z. Zhou, P. Mertikopoulos, A. L. Moustakas, N. Bambos, and P. W. Glynn, “Mirror descent learning in continuous games,” in *CDC '17: Proceedings of the 56th IEEE Annual Conference on Decision and Control*, 2017.
- [70] Z. Zhou, P. Mertikopoulos, A. L. Moustakas, S. Mehdian, N. Bambos, and P. W. Glynn, “Power control in wireless networks

- via dual averaging,” in *GLOBECOM '17: Proceedings of the 2017 IEEE Global Telecommunications Conference*, 2017.
- [71] P. Mertikopoulos, E. V. Belmega, and L. Sanguinetti, “Distributed learning for resource allocation under uncertainty,” in *GlobalSIP '16: Proceedings of the 2016 IEEE Global Conference on Signal and Information Processing*, 2016.
- [72] A. Marcastel, E. V. Belmega, P. Mertikopoulos, and I. Fijalkow, “Online power allocation for opportunistic radio access in dynamic OFDM networks,” in *VTC '16-Fall: Proceedings of the 2016 IEEE Vehicular Technology Conference*, 2016.
- [73] A. Marcastel, E. V. Belmega, P. Mertikopoulos, and I. Fijalkow, “Online interference mitigation via learning in dynamic IoT environments,” in *GLOBECOM '16: Proceedings of the 2016 IEEE Global Telecommunications Conference*, 2016.
- [74] A. Marcastel, E. V. Belmega, P. Mertikopoulos, and I. Fijalkow, “Interference mitigation via pricing in time-varying cognitive radio systems,” in *NetGCoop '16: Proceedings of the 2016 International Conference on Network Games, Control and Optimization*, 2016.
- [75] A. S. Shafiq, P. Mertikopoulos, and S. Glisic, “A novel dynamic network architecture model based on stochastic geometry and game theory,” in *ICC '16: Proceedings of the 2016 IEEE International Conference on Communications*, 2016.
- [76] S. D’Oro, P. Mertikopoulos, A. L. Moustakas, and S. Palazzo, “Cost-efficient power allocation in OFDMA cognitive radio networks,” in *EUCNC '15: Proceedings of the 2015 European Conference on Networks and Communications*, 2015.
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