Arya Akhavan

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EXPERIENCE

- **University of Oxford**
  Postdoctoral researcher — *Sept. 2024 – present*

- **École Polytechnique de Paris**
  Postdoctoral researcher — *Mar. 2023 – Jul. 2024*

- **Research Fellow at Istituto Italiano di Tecnologia (IIT)-Genova**
  Advisors: Alexandre B. Tsybakov and Massimiliano Pontil — *Apr. 2019 – Aug. 2019*

- **Internship at ENSAE, IP, Paris**
  Advisor: Alexandre B. Tsybakov — *Apr. 2018 – Dec. 2018*

EDUCATION

- **ENSAE, Institut Polytechnique de Paris and IIT-Genova**
  PhD Candidate, Theoretical Statistics — *Sep. 2019 – Feb. 2023*
  - **Advisors**: Alexandre B. Tsybakov and Massimiliano Pontil

- **Paris Dauphine University and École Normale Supérieure Paris-Saclay**
  Master M2 MASH Learning and Applications; Mention: Très Bien — *Sep. 2017 – Dec. 2018*

- **Sharif University of Technology**
  First year of Master in Mathematics; Mention: Très Bien — *Sep. 2016 – Jul. 2017*

- **University of Tehran**
  B.Sc. in Mathematics — *Sep. 2011 – Jul. 2016*

TEACHING EXPERIENCE

- **Reinforcement Learning**, 21 hours, developed and instructed by myself
  at Paris Dauphine University. — *Feb. 2023, Oct. 2023*

- **Tutorial on Bandit Algorithms**, 5 hours, developed and instructed by myself
  at École Polytechnique de Paris. — *Feb. 2023, Oct. 2023*

- **High Dimensional Statistics**, 12 hours, instructed by Evgenii Chzhen at ENSAE, IP, Paris. — *Oct. 2023*

- **Online Learning**, 12 hours, instructed by Alexandre B. Tsybakov at ENSAE, IP, Paris. — *Feb. 2023*

- **Number Theory**, 32 hours, instructed by Amir Ghadermarzi at University of Tehran. — *Aug. 2017*

- **Topology**, 32 hours, instructed by Hadi Zare at University of Tehran. — *Sep. 2016*

- **Linear Algebra**, 32 hours, instructed by Hadi Zare at University of Tehran. — *Sep. 2016*

RESEARCH INTERESTS

- **Optimization**
- **Online Learning**
- **Non-parametric Statistics**
- **Stochastic Process**

Academic Services

- **Co-organizer**
  Re-thinking high dimensional statistics, Oberwolfach, Germany   *May 2022*
- **Instructor of Problem Solving Sessions for the Team of University of Tehran**
  To prepare for 40th Iranian Mathematical Society Competition   *May 2016*
- **Co-head of the Mathematical Olympiad Team of University of Tehran**
  In 40th Iranian Mathematical Society Competition, Iran University of Science and Technology.   *Aug. 2016*

Publications and Preprints

- A. Akhavan, K. Lounici, M. Pontil, and A. B. Tsybakov (2024). "Contextual Continuum Bandits: Static Versus Dynamic Regret". In: *arXiv preprint arXiv:2406.05714*

- A. Akhavan, D. Gogolashvili, and A. B. Tsybakov (2024). "Estimating the minimizer and the minimum value of a regression function under passive design". In: *Journal of Machine Learning Research (JMLR)*

- A. Akhavan, E. Chzhen, Massimiliano Pontil, and A. B. Tsybakov (2023). "Zero order optimization of highly smooth functions: improved analysis and new algorithm". In: *Journal of Machine Learning Research (JMLR)*

- A. Akhavan, E. Chzhen, M. Pontil, and A. B. Tsybakov (2022). "A gradient estimator via L1-randomization for online zero-order optimization with two point feedback". In: *Advances in Neural Information Processing Systems 35*

- R. Grazzi, A. Akhavan, J. Falk, L. Cella, and M. Pontil (2022). "Group Meritocratic Fairness in Linear Contextual Bandits". In: *Advances in Neural Information Processing Systems 35*

- A. Akhavan, M. Pontil, and A. Tsybakov (2021). "Distributed Zero-Order Optimization under Adversarial Noise". In: *Advances in Neural Information Processing Systems 34*

- A. Akhavan, M. Pontil, and A.B. Tsybakov (2020). "Exploiting higher order smoothness in derivative-free optimization and continuous bandits". In: *Advances in Neural Information Processing Systems 33*

Honors and Awards

- **Top 10% of Reviewers**, thirty-fifth Neural Information Processing Systems (NeurIPS)   *2022*

- **Top 10% of Reviewers**, thirty-ninth International Conference on Machine Learning (ICML)   *2022*

- **Ranked 1st**, evaluation of the master's thesis by the committee of Master M2 MASH in Paris Dauphine University   *2018*

- **Ranked 3rd**, overall coursework in Master M2 MASH   *2018*

- **Granted by Fondation Sciences Mathématiques de Paris**   *2017*

- **Silver Medal**, in 39th Iranian Mathematical Society Competition.   *2015*

Research talks

- **Université de Lille**, Scool, CRSItAL, Lille, France.   *Feb. 2024*

- **École Normale Superiéure de Paris**, Sierra, DI ENS, Paris, France.   *Jan. 2024*

- **Université Paris-Saclay**, Mathematics Orsay, Orsay, France.   *Jan. 2024*

- **Yerevan State University**, Summer school in learning theory, Tsaghkadzor, Armenia.   *Jul. 2023*

- **Centre Igesa Porquerolles**, New trends in statistical learning III, Porquerolles, France. *Jun. 2023*

- **Mathematisches Forschungsinstitut Oberwolfach (MFO, Oberwolfach Research Institute for Mathematics)**, Re-thinking high dimensional statistics, Oberwolfach, Germany. *May 2022*

- **Centre International de Rencontres Mathématiques (CIRM)**, Machine Learning and Nonparametric Statistics, Marseille, France. *Dec. 2021*

- **PGMO Days**, Annual Meeting of the Gaspard Monge Program for Optimization and Operations Research and Their Interactions with Data Sciences, Paris, France. *Dec. 2021*

Programming Skills

- **Languages**: Python, R, C++

Languages

- **Persian**: native

- **Armenian**: native

- **English**: fluent

- **French**: working proficiency