Arya Akhavan
https://aryaakhavan.github.io
Email : aryaakhavanf@gmail.com
Mobile : +33-7-49-03-07-83

Experience

- **École Polytechnique de Paris**
  Postdoctoral researcher, member of CMAP team — *Dec. 2022 – present*
- **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

- **Online Learning**, 12 hours, instructed by Alexandre B. Tsybakov at ENSAE, IP, Paris. *Feb. 2023*
- **Reinforcement Learning**, 21 hours, developed and instructed by myself at Paris Dauphine University. *Feb. 2023*
- **Tutorial on bandit algorithms**, 5 hours, developed and instructed by myself at École Polytechnique de 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, D. Gogolashvili, and A. B. Tsybakov (2022). "Estimating the minimizer and the minimum value of a regression function under passive design". In: *arXiv preprint arXiv:2211.16457*
- A. Akhavan, E. Chzhen, M. Pontil, and A. B. Tsybakov (2023). *Zero order optimization of highly smooth functions: improved analysis and new algorithm (Upcoming Paper)*
- 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: *arXiv preprint arXiv:2205.13910, NeurIPS 2022*
- R. Grazzi, A. Akhavan, J. Falk, L. Cella, and M. Pontil (2022). "Group Meritocratic Fairness in Linear Contextual Bandits". In: *arXiv preprint arXiv:2206.03150, NeurIPS 2022*
- 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

- **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