Arya Akhavan

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EDUCATION

ENSAE, Institut Polytechnique de Paris and IIT-Genova
PhD Candidate, Theoretical Statistics — *Sep. 2019 – Present*
  ○ **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, Tehran, Iran
First year of Master in Mathematics; Mention: Très Bien — *Sep. 2016 – Jul. 2017*

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

EXPERIENCE

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*

RESEARCH INTERESTS

- **Optimization**
- **High-dimensional Statistics**
- **Non-parametric Statistics**
- **Stochastic Process**

PUBLICATIONS AND PREPRINTS

- D. Gogolashvili, A. Akhavan, and A. B. Tsybakov (2023). *Zero order optimization of smooth functions in passive schemes (Upcoming Paper)*

- 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, to appear in 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, to appear in 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*

REVIEWING

- **Conference**: NeurIPS, ICML;

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 (short talk). *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*

Teaching Experience

- **Number Theory**, instructed by Amir Ghadermarzi at University of Tehran, Tehran, Iran. *Aug. 2017*
- **Topology**, instructed by Hadi Zare at University of Tehran, Tehran, Iran. *Sep. 2016*
- **Linear Algebra**, instructed by Hadi Zare at University of Tehran, Tehran, Iran. *Sep. 2016*

Academic Services

- **Video conference assistant and reporter**
  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 team of University of Tehran**
  In 40th Iranian Mathematical Society Competition, Iran University of Science and Technology. *Aug. 2016*

Programming Skills

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

Languages

- **Persian**: native
- **Armenian**: native
- **English**: fluent
- **French**: working proficiency