

# Arya Akhavan

aryaakhavanF@gmail.com • + (33) 7 49 03 07 83

## EDUCATION

### PhD Candidate, Theoretical Statistics,

- ENSAE IP, Paris, and Istituto Italiano di Tecnologia-Genova (IIT)

September 2019 – Present

Supervisors: Alexandre B. Tsybakov and Massimiliano Pontil

### Research Fellow, Computational Machine Learning,

- Istituto Italiano di Tecnologia-Genova (IIT)

April 2019 – September 2019

Supervisor: Massimiliano Pontil

### Master M2 MASH Learning and Applications,

- Paris Dauphine University and École Normale Supérieure Paris-Saclay

2017 – December 2018

Mention: Très Bien

### First year of Master in Mathematics,

- Sharif University of Technology

2016 – 2017

Mention: Très Bien

### B.Sc. in Mathematics,

- Department of Mathematics, Statistics and Computer Sciences, University of Tehran

2011 – 2016

### High School Diploma in Mathematics and Physics Discipline,

- Rahyar High School, Tehran, Iran

2007 – 2011

## INTERESTS

**Optimization**

**High-dimensional Statistics**

**Non-parametric Statistics**

**Statistical Learning Theory**

**Stochastic Process**

## WORK EXPERIENCE

### Research Fellow at Istituto Italiano di Tecnologia-Genova (IIT)

2019 – Present

- Supervisors: Alexandre B. Tsybakov and Massimiliano Pontil

### Internship at CREST-ENSAE

Spring and Fall 2018

- Supervisor: Alexandre B. Tsybakov

## PUBLICATIONS AND PREPRINTS

A. Akhavan, M. Pontil, A. B. Tsybakov. **Distributed Zero-order Optimization under Adversarial Noise**, Advances in Neural Information Processing Systems (NeurIPS). 2021

A. Akhavan, M. Pontil, A. B. Tsybakov. **Exploiting Higher Order Smoothness in Derivative-free Optimization and Continuous Bandits**, Advances in Neural Information Processing Systems (NeurIPS). 2020

## HONORS AND AWARDS

**Granted by Fondation Sciences Mathématiques de Paris**

2017

**Ranked 13th**, in 21st National Scientific Olympiad in Mathematics, held by NOET (National Organization for Educational Testing). July 2016

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

May 2015

**Ranked 1st**, University of Tehran IMC 2017 (International Society Competition for University Students) in Team Selection Contest. April 2015

<b>TEACHING</b>	<p>Teaching assistance of following courses in Department of Mathematics, Statistics, and Computer Science, University of Tehran:</p> <ul style="list-style-type: none"> <li>▪ <b>Linear Algebra</b>, Instructor: Prof. Yassemi <span style="float: right;">Fall 2017</span></li> <li>▪ <b>Topology</b>, Instructor: Dr. Hadi Zare <span style="float: right;">Spring 2016</span></li> <li>▪ <b>Elementary Number Theory</b>, Instructor: Dr. Ghadermarzi <span style="float: right;">Spring 2016</span></li> </ul>
<b>ACADEMIC SERVICE</b>	<ul style="list-style-type: none"> <li>▪ Instructor of Problem Solving Sessions for the team of University of Tehran to prepare for 40th Iranian Mathematical Society Competition, Department of Mathematics, Statistics, and Computer Science, University of Tehran. <span style="float: right;">Spring 2016</span></li> <li>▪ Co-Head of the team of University of Tehran in 40th Iranian Mathematical Society Competition, Iran University of Science and Technology, Tehran, Iran. <span style="float: right;">Aug 2016</span></li> </ul>
<b>ATTENDED ACADEMIC ACTIVITIES</b>	<ul style="list-style-type: none"> <li>▪ Participation in <b>Metastability Phenomenon, Tunnelling Effect and Condensation</b> Short Course, Instructor: Prof. Fraydoun Rezakhanlou (University of California, Berkeley), Sharif University of Technology <span style="float: right;">May 2017</span></li> <li>▪ Participation in <b>Algebraic Geometry</b> Short Course, Instructor: Prof. Francois Loesser (Institut Mathématique de Jussieu), University of Tehran <span style="float: right;">October 2016</span></li> <li>▪ Participation in First Mathematics Summer School for Undergraduate Students, Institute for Advanced Studies in Basic Sciences, Zanzan, Iran <span style="float: right;">Aug 2016</span> <ul style="list-style-type: none"> <li>• <b>Stochastic Processes</b>, Instructors: Dr. Ksra Alishahi, Dr. Erfan Salavati</li> <li>• <b>Algebraic Topology</b>, Instructors: Dr. Eaman Eftekhari, Dr. Ali Kamalinejad</li> </ul> </li> <li>▪ Associate member of Iranian Mathematical Society <span style="float: right;">Sep 2015 – present</span></li> <li>▪ Reading project on Modular Elliptic Curves <span style="float: right;">Summer 2015</span> <ul style="list-style-type: none"> <li>• Description: Under supervision of Dr. Amir Ghadermarzi, some talks on modular forms and elliptic curves has been given, based on Serre’s ”A first course in arithmetic” and Koblitz’s ”Introduction to elliptic curves and modular forms,” regarding Wile’s modularity theorem.</li> </ul> </li> </ul>
<b>COMPUTER SKILLS</b>	R, MATLAB, Python, $\text{\LaTeX}$
<b>LANGUAGES</b>	<ul style="list-style-type: none"> <li>▪ Persian (native)</li> <li>▪ Armenian (native)</li> <li>▪ English (fluent)</li> <li>▪ French (intermediate)</li> </ul>
<b>INTERESTS</b>	Rock climbing, traveling, martial arts, reading Sci-fi and fiction novels.