

Avetik KARAGULYAN

PERSONAL DATA

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WORK EXPERIENCE

CURRENT | Postdoctoral fellow at KAUST
Nov 2021 | *Optimization and Machine Learning Lab supervised by [Peter Richtarik](#)*

SEPT 2018 - MAY 2021 | ENSAE
Teaching Associate of Probability theory, Statistics, Functional analysis, Measure theory and Intro to ML courses

APR - SEPT 2018 | Research intern at ENSAE/CREST
Supervised by [Arnak Dalalyan](#)

JUN - AUG 2017 | Innovative Solutions and Technologies Center
Math trainer for high-school students

SEPT 2016 - MAY 2017 | American University of Armenia
Teaching Associate of Probability theory and Statistics courses

EDUCATION

JUNE 2021 | Ph.D. in Applied Mathematics
Institut Polytechnique de Paris, ENSAE, CREST
Supervised by [Arnak Dalalyan](#)

SEPT 2018 | Master 2 - MVA (Mathematics, Vision, Learning)
École normale supérieure Paris-Saclay, Cachan, France
Mention: Très bien

JULY 2017 | Bachelor in Mathematics
Yerevan State University, Yerevan, Armenia
GPA: 20/20

JUNE 2013 | High-school degree
PhysMath school after A.Shahinyan, Yerevan, Armenia

PUBLICATIONS

| Sampling with the Langevin Monte-Carlo, Avetik Karagulyan | [Ph.D. thesis defended in Institut Polytechnique de Paris](#)

| Penalized Langevin dynamics with vanishing penalty for smooth and log-concave targets, Avetik Karagulyan, Arnak Dalalyan | [Accepted to NeurIPS 2020.](#)

| Bounding the error of discretized Langevin algorithms for non-strongly log-concave targets, Arnak Dalalyan, Avetik Karagulyan and Lionel Riou-Durand | arxiv.org/abs/1906.08530

| Non-Asymptotic Guarantees For Sampling by Stochastic Gradient Descent, Avetik G. Karagulyan | [Journal of Contemporary Mathematical Analysis \(Armenian Academy of Sciences\) 54.2 \(2019\): 71-78](#)

User-friendly guarantees for the Langevin Monte Carlo with inaccurate gradient,
 Arnak S. Dalalyan, Avetik G. Karagulyan | [Stochastic Processes and their Applications 129.12 \(2019\): 5278-5311.](#)

Existence of positive solutions for an approximation of stationary mean-field games,
 Diogo Gomes et al. | [Involve, a Journal of Mathematics Vol. 10 \(2017\), No. 3, 473-493](#)

TALKS AND CONFERENCES

2021 November	Journées MAS 2020 Talk
2021 June	Ph.D. defense in ENSAE
2020 December	Meeting in Mathematical Statistics Talk
2020 December	33-rd Neural Information Processing Systems Poster
2020 July	Joint Structures and Common Foundations of Statistical Physics, Information Geometry and Inference for Learning (SPIGL'20) , Les Houches, France Poster
2020 March	Optimization for Machine Learning, Luminy, France
2019 December	Meeting in Mathematical Statistics, Luminy, France
2019 April	Seminar at Télécom ParisTech, Paris, France Talk
2019 April	8èmes Rencontres des Jeunes Statisticiens (RJS 2019), Porquerolles France Talk
2019 March	YES X : "Understanding Deep Learning: Generalization, Approximation and Optimization", Eindhoven, Netherlands, Poster
2016 July	3 rd Summer school "Mathematics and Applications", Tsaghkadzor, Armenia
2015 Aug	Visiting Student Research Program "Applied Differential Equations", KAUST
2015 July	2nd Summer school "Mathematics and Applications", Tsaghkadzor, Armenia
2014 July	1st Summer school "Mathematics and Applications", Tsaghkadzor, Armenia

AWARDS AND PRIZES

Silver Medal	IMC 2017 Blagoevgrad, Bulgaria
Bronze Medal	IMC 2016 Blagoevgrad, Bulgaria
Silver Medal	IMC 2015 Blagoevgrad, Bulgaria
Gold Medal	2017, Awarded by Yerevan State University <i>For high academic performance and participation in olympiads</i>
"Best Student of Faculty"	2015, Awarded by Yerevan State University
Honourable Mention	IMO 2013 Santa Marta, Colombia
Honourable Mention	IMO 2012 Mar del Plata, Argentina
Semi-finalist	ACM-ICPC 2015 Tbilisi, Georgia
Semi-finalist	ACM-ICPC 2014 Tbilisi, Georgia
Semi-finalist	ACM-ICPC 2013 Tbilisi, Georgia
2nd Prize	Mirror of William Lowell Putnam Mathematical Competition 2016
2nd Prize	Mirror of William Lowell Putnam Mathematical Competition 2013

LANGUAGES

ARMENIAN:	Mother tongue
RUSSIAN:	Full professional
ENGLISH:	Full professional
FRENCH:	Full professional