

Avetik KARAGULYAN

CONTACTS

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EDUCATION

SEPTEMBER 2018 Ph.D. under supervision of prof. Arnak Dalalyan
ENSAE/CREST, Palaiseau, France
2017/2018 M2 - MVA
École normale supérieure Paris-Saclay, Cachan, France
MENTION: Très bien
JUNE 2017 Degree in MATHEMATICS
Yerevan State University, Yerevan, Armenia
GPA: 20/20
JUNE 2013 High-school degree
PhysMath school after A.Shahinyan, Yerevan, Armenia

CONFERENCES, TALKS, WORKSHOPS

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 3rd Summer school "Mathematics and Applications", Tsaghkadzor, Armenia
2015 AUG Visiting Student Research Program "Applied Differential Equations"
KAUST, Saudi Arabia
2015 JULY 2nd Summer school "Mathematics and Applications", Tsaghkadzor, Armenia
2014 JULY 1st Summer school "Mathematics and Applications", Tsaghkadzor, Armenia

WORK EXPERIENCE

APR 2018 - SEPT 2018 | ENSAE/CREST
Research intern supervised by A.Dalalyan
JUN 2017 - AUG 2017 | INNOVATIVE SOLUTIONS AND TECHNOLOGIES CENTER - ISTC
Math trainer
SEPT 2016 - MAY 2017 | AMERICAN UNIVERSITY OF ARMENIA
Teaching Associate
APR 2016 - JUL 2016 | MER SOFT LLC.
Internship in Medical Data Analysis

RESEARCH, ARTICLES

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 | <https://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](#)

ACHIEVEMENTS AND AWARDS

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
"BEST STUDENT OF FACULTY"	For high academic performance and participation in olympiads 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
2 ND PRIZE	Mirror of William Lowell Putnam Mathematical Competition 2016
2 ND PRIZE	Mirror of William Lowell Putnam Mathematical Competition 2013

LANGUAGES

ARMENIAN:	Native or bilingual proficiency
ENGLISH:	Full professional proficiency
RUSSIAN:	Full professional proficiency
FRENCH:	Professional working proficiency