# Avetik Karagulyan

#### **CONTACTS**

Address: Office 3012

5 Avenue Henry Le Châtelier | Palaiseau France | 91120

PHONE: +33 6 41 87 05 77

EMAIL: auavetik@gmail.com

### **EDUCATION**

SEPTEMBER 2018 Ph.D. under superivision of prof. Arnak Dalalyan

ENSAE/CREST, Palaiseau, France

2017/2018 M2 - MVA

École normale supérieure Paris-Saclay, Cachan, France

MENTION: Très bien Degree in MATHEMATICS

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

JULY 2016 3<sup>rd</sup>Summer school "Mathematics and Applications" held by YSU

AUG-SEPT 2015 Visiting Student Research Program "Applied Differential Equations"

KAUST, Saudi Arabia

JULY 2015 2<sup>nd</sup> Summer school "Mathematics and Applications" held by YSU JULY 2014 1<sup>st</sup> Summer school "Mathematics and Applications" held by YSU

JULY 2011 Summer school held by Higher School of Economics

Dilijan, Armenia

## **WORK EXPERIENCE**

	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.

APR 2018 - SEPT 2018 | ENSAE/CREST

Internship in Medical Data Analysis

## RESEARCH, ARTICLES

Penalized Langevin dynamics with vanishing penalty for smooth and log-concave targets, Avetik Karagulyan, Arnak Dalalyan | https://arxiv.org/abs/2006.13998

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 Bronze Medal	IMC 2017 Blagoevgrad, Bulgaria 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 <sup>ND</sup> PRIZE	Mirror of William Lowell Putnam Mathematical Competition 2016
2 <sup>ND</sup> PRIZE	Mirror of William Lowell Putnam Mathematical Competition 2013

## LANGUAGES

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