# Parsa Rangriz

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CONTACT
INFORMATION

Department of Mathematics,
University of California, San Diego,
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EDUCATION

**University of California, San Diego** (Sep 2025 - Present)
Ph.D. in Mathematics

**University of Waterloo** (Sep 2023 - Apr 2025)
M.Sc. in Statistics (*Advisor*: Aukosh Jagannath)

**Sharif University of Technology** (Sep 2018 - Feb 2023)
B.Sc. in Physics w/ Minor in Mathematics

INTERESTS

**Probability & High-Dimensional Statistics**: stochastic analysis, random matrices,
learning theory, statistical physics, combinatorial optimization.

PUBLICATIONS

P. Rangriz, **Limit theorems for stochastic gradient descent in high-dimensional
single-layer networks**, arXiv:2511.02258 (Nov 2025)

P. Rangriz, **High-dimensional scaling limits of online stochastic gradient descent in single-index models**, M.Sc. Thesis, University of Waterloo (Apr 2025)

RESEARCH
EXPERIENCES

**Graduate Research Student**
University of Waterloo (Sep 2023 - Apr 2025)
Supervisor: Aukosh Jagannath

**Research Intern – Summer@EPFL**
Statistical Physics of Computation Lab, EPFL (July 2022 - Sep 2022)
Supervisor: Lenka Zdeborova

AWARDS
& HONORS

**Department of Mathematics Fellowship**, UC San Diego, 2025

**UW Graduate Scholarship**, University of Waterloo, 2025

**Graduate Research Studentship**, University of Waterloo, 2023-2025

**International Master's Award of Excellence**, University of Waterloo, 2023

**Master of Mathematics Entrance Scholarship**, University of Waterloo, 2023

**Summer@EPFL Fellowship**, EPFL, 2022

**Silver Medal** in the **30th Iran National Physics Olympiad**, 2017

TA EXPERIENCES

**UC San Diego** (2025-Present)
MATH 20B: Calculus 2 (Winter '26), MATH 11: Probability and Statistics (Fall '25)

**University of Waterloo** (2023-2025)
STAT 333: Stochastic Processes 1 (Winter '25, Winter '24), STAT 833: Stochastic
Processes 2 (Fall '24), STAT 330: Mathematical Statistics (Spring '24, Fall '23), STAT
231: Probability (Spring '24), STAT 230: Statistics (Spring '24), STAT 202: Introductory Statistics for Scientists (Fall '23)

**Sharif University of Technology** (2019-2022)
Advanced Statistical Mechanics (Fall '22, Fall '21, Spring '21), Statistical Mechanics
(Spring '21), Thermodynamics (Fall '20), General Physics 3 (Fall '19), Fundamentals
of C Programming (Fall '19)