
Curriculum Vitae

Alp Uzman

Last Revised: 2025-10-12 20:30:58-06:00

Personal & Contact Information

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<https://www.youtube.com/@alpuzman>

Work Experience

- University of Utah (UU) Postdoctoral Researcher July 2023 – June 2026

Education

- Pennsylvania State University, Univ. Park (PSU) Sep. 2016 – May 2023
Ph.D. in Mathematics
Advisor: Federico Rodriguez Hertz
Dissertation: Arithmeticity for Smooth Maximal Rank Positive Entropy Actions of \mathbb{R}^k
(<https://etda.libraries.psu.edu/catalog/20180azu4>)
- Koç University, Istanbul (KU) B.Sc. in Mathematics Sep. 2011 – Jun. 2016
Summa Cum Laude
- KU B.A. in Philosophy Sep. 2012 – Jun. 2016
- University of California, Irvine Exchange Program Jan. 2015 – Jun. 2015
- Kabataş Erkek Lisesi, Istanbul Lycee Diploma Sep. 2006 – Jun. 2011

Teaching Experience

University of Utah

- MATH 3220 (Foundations of Analysis II) Fall 2025
https://www.youtube.com/playlist?list=PL40ydqvvyXfOkGMhOrz6AID_HcpwxnzaW
https://github.com/AlpUzman/MATH_3220_002_FALL_2025
- MATH 3210 (Foundations of Analysis I) Spring 2025
https://www.youtube.com/playlist?list=PL40ydqvvyXfPGbwcE1wT2_dHvYgykxsLo
https://github.com/AlpUzman/MATH_3210_001_SPRING_2025
- MATH 4800 (Undergrad. Research in Mathematics: Fractal Geom. and Dynamics) Fall 2024
<https://www.youtube.com/playlist?list=PL40ydqvvyXfMdJMim52HXA0amgWJ0ajUM>
https://github.com/AlpUzman/MATH_4800_001_FALL_2024

- MATH 2270 (Linear Algebra) Spring 2024
<https://www.youtube.com/playlist?list=PL40ydvvyXf0BtKE5ZbyvjE0Ff0oreeUF>
https://github.com/AlpUzman/MATH_2270_002_SPRING_2024
- MATH 2250 (Differential Equations and Linear Algebra) Fall 2023
https://github.com/AlpUzman/MATH_2250_001_FALL_2023

Penn State

- MATH 435 (Basic Abstract Algebra), grader Spring 2022
- MATH 597 (Rigidity), cameraman, digital lecture facilitator and video editor Spring 2021
<https://www.youtube.com/playlist?list=PL40ydvvyXf0x9BqlxcbpEZMxq6RevBgY>
- MATH 251 (Ordinary and Partial Differential Equations) Fall 2021
- MATH 513 (Partial Differential Equations I), grader Fall 2021
- MATH 21 (College Algebra I), two sections Fall 2020
- MATH 230 (Calculus and Vector Analysis) Spring 2020
- MATH 231 (Calculus of Several Variables) Spring 2020
- MATH 251 (Ordinary and Partial Differential Equations) Fall 2019
- MATH 251 (Ordinary and Partial Differential Equations), two sections Fall 2018
- MATH 36 (Insights into Mathematics), two sections Fall 2017
- MATH 22 (College Algebra II) Summer 2017
- MATH 220 (Matrices) Spring 2017
- MATH 34 (Mathematics of Money), assistant Fall 2016

Koç University Work & Study Program Teaching Assistant (Selected)

- MATH 203 (Multivariable Calculus) Fall 2014
- EQUR 121 (Symbolic Logic) Spring 2014
- EQUR 121 (Symbolic Logic) Fall 2013
- MATH 103 (Introduction to Abstract Mathematics) Fall 2013
- MATH 204 (Differential Equations) Spring 2013
- MATH 107 (Linear Algebra) Fall 2012
- MATH 106 (Single Variable Calculus) Fall 2012

Koç University Office of Learning & Teaching (KOLT) Tutor

- MATH 103 (Introduction to Abstract Mathematics) Fall 2013
- PHIL 101 (Freshman Seminar) Fall 2013
- MATH 106 (Single Variable Calculus) Spring 2013
- MATH 203 (Multivariable Calculus) Spring 2013
- MATH 107 (Linear Algebra) Fall 2012

Service

- **Turkish Mathematical Society (TMS) DRP Turkey 2025**, Co-organizer June-Aug. 2025
- **UU Introduction to Research**, Mentor Spring 2025
- **Institut Henri Poincaré (IHP) Group Actions and Rigidity Weekly Informal Seminar**, Co-organizer May-June 2024
- **TMS DRP Turkey 2023**, Mentor Jul.-Aug. 2023
- **TMS DRP Turkey 2022**, Mentor Jul.-Aug. 2022
- **PSU Dynamics Student Seminar**, Leading Organizer Fall 2017 – Spring 2021

Certifications

- **UU Graduate Teaching Institute** May 2025
- **Adult Mental Health First Aid USA** Oct. 2023
- **Heartsaver First Aid CPR AED** Oct. 2023

Publications

- **Higher Rank Plante Alternative** *joint with Kurt Vinhage, in preparation*
- **Fragility of Rank One Factors** *joint with Kurt Vinhage, in preparation*
- **Fried Average Entropy for Actions of Nilpotent Groups**, *in preparation*
- **Arithmeticity for Smooth Maximal Rank Positive Entropy Actions of \mathbb{R}^k** , *submitted to the Journal of Modern Dynamics, under review*
(<https://arxiv.org/abs/2307.09433>)

Research Talks & Poster Sessions

- **Florida State University Rigidity of Smooth Actions of \mathbb{R}^k** Oct. 2024
- **IHP, Actions of Large Groups, Geometric Structures, and the Zimmer Program Arithmeticity for Smooth Maximal Rank Positive Entropy Actions of \mathbb{R}^k** Jun. 2024
- **Utah Dynamics Mini-Workshop Arithmeticity for Smooth Maximal Rank Positive Entropy Actions of \mathbb{R}^k** Dec. 2023
- **University of California, Riverside Arithmeticity for Smooth Maximal Rank Positive Entropy Actions of \mathbb{R}^k** Oct. 2023
- **UU Arithmeticity for Smooth Maximal Rank Positive Entropy Actions of \mathbb{R}^k** Nov. 2022
- **PSU Semi-annual Workshop in Dynamical Systems and Related Topics Katok-Rodriguez Hertz Arithmeticity for Maximal Rank Positive Entropy Actions of \mathbb{R}^k** Oct. 2021
- **Simons Center Flexibility and Rigidity in Dynamical Systems Poster Session Katok-Rodriguez Hertz Arithmeticity for Maximal Rank Positive Entropy Actions of \mathbb{R}^k** Mar. 2021

Honors & Scholarships

- UU C.R. Wiley Instructorship July 2023 – June 2026
- PSU Raymond and Christine Ayoub Award May 2023
- PSU Pettit Scholarship in Science Aug. 2016, Jan. 2017, Aug. 2017, Aug. 2018
- KU 1st Ranking Graduate in the College of Sciences Jun. 2016
- KU 2nd Ranking Graduate in the Department of Philosophy Jun. 2016
- KU Exchange Program Grant Jan. 2015
- **Turkish Foundation of Education** Eclat Scholarship Sep. 2012 – Jun. 2015
- KU Tuition Scholarship Sep. 2011 – Jun. 2016