Curriculum Vitae
Peyam Ryan Tabrizian

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Education

2010−2016	Ph.D. Univ. of California, Berkeley, Mathematics (Advisor: Lawrence C. Evans)
2006−2010	B.A. Univ. of California, Berkeley, Mathematics (Highest Honors in Math)

Employment

2022−Now	Brown University, Lecturer of Applied Mathematics
2022−2022	Columbia University, Summer Session Instructor
2021−2022	Texas A&M University, Instructional Assistant Professor of Mathematics
2020−2021	Arizona State University, Assistant Teaching Professor of Mathematics
2017−2020	University of California, Irvine, Visiting Assistant Professor of Mathematics
2016−2017	Williams College, Visiting Assistant Professor of Mathematics

Awards

2021	**YouTube Silver Creator Award**, awarded to YouTube video producers who have surpassed 100,000 subscribers, as a way of recognizing the extraordinary effort creators put into their growing channels and to build thriving communities, responsibly.
2019	**Outstanding Contributions to Undergraduate Education**, awarded yearly to a faculty member from each department who has excelled in undergraduate education (School of Physical Sciences, UC Irvine)
2016	**Nikki Kose Memorial Teaching Prize**, awarded to the top Graduate Student Instructor (GSI) of the 2016 Mathematics graduating class for truly exceptional teaching performance (Department of Mathematics, UC Berkeley)
2013	**Teaching Effectiveness Award** University-wide prize designed to award 12 GSIs per year who have identified a particular teaching problem and have developed an effective response (Graduate Student Teaching and Achievement Center, UC Berkeley)
2012	**Outstanding GSI Award** Honors 200 GSIs per year for their work in the teaching of undergraduates (Graduate Student Teaching and Achievement Center, UC Berkeley)
2010	**Dorothea Klumpke Roberts Undergraduate Prize**: Awarded to a small number of mathematics undergraduates for their exceptional performance in their undergraduate studies (Department of Mathematics, UC Berkeley)

Research interests

Partial Differential Equations (PDE), Calculus of Variations

Publications

2020	*Asymptotics for scaled Kramers-Smoluchowski equations in several dimensions with general potentials* (joint paper with Insuk Seo, *Calculus of Variations and PDE*, Vol. 59, Article 11, 2020)
2016	*Asymptotics for the Kramers-Smoluchowski Equation* (joint paper with Prof. Lawrence C. Evans, *SIAM Journal of Analysis*, Vol. 48 Issue 4, 2944-2961, 2016)
2016	*Asymptotic PDE Models for Chemical Reactions* (PhD Thesis, UC Berkeley)

Teaching Experience

Brown University (Instructor)

Spring 2023	Applied Ordinary Differential Equations (APMA 0350)
Spring 2023	Applied Partial Differential Equations (APMA 0360)
Fall 2022	Applied Ordinary Differential Equations (APMA 0350)
Fall 2022	Operations Research: Deterministic Models (APMA 1210)

Columbia University (Instructor)

Summer 2022	Introduction to Modern Analysis 2 (Math S4602)

Texas A&M University (Instructor)

Spring 2022	Differential Equations (Math 308)
Fall 2021	Real Analysis (Math 409)
Fall 2021	Multivariable Calculus (Math 251)

Arizona State University (Instructor)

Spring 2021	Multivariable Calculus (MAT 276)
Spring 2021	Elementary Linear Algebra (MAT 242, online course)
Fall 2020	College Algebra (MAT 117)
Fall 2020	Precalculus (MAT 170, online course)

UC Irvine (Instructor)

Spring 2020	Reading course: Partial Differential Equations (Math 199C)
Spring 2020	Real Analysis (Math 140A)
Winter 2020	Vector Calculus (Math 2E)
Fall 2019	Partial Differential Equations (Math 112A)
Fall 2019	Elementary Linear Algebra (Math 3A)
Spring 2019	Reading course: Partial Differential Equations (Math 199C)
Spring 2019	Proof-Based Linear Algebra (Math 121A)
Winter 2019	Elementary Linear Algebra (Math 3A)

Fall 2018   Vector Calculus (Math 2E)
Fall 2018   Integral Calculus (Math 2B)
Spring 2018 Multivariable Calculus (Math 2D)
Winter 2018 Integral Calculus (Math 2B)
Fall 2017   Integral Calculus (Math 2B)

Williams College (Instructor)

Spring 2017 Partial Differential Equations (Math 453)
Spring 2017 Discrete Mathematics (Math 200)
Fall 2016   Asymptotic Analysis in Differential Equations (Math 379)
Fall 2016   Discrete Mathematics (Math 200)

UC Berkeley (Instructor/TA)

Spring 2016 Teaching Workshop (Math 375, Instructor)
Fall 2015   Teaching Workshop (Math 375, TA)
Spring 2015 Elementary Linear Algebra and Differential Equations (Math 54, TA)
Fall 2014   Elementary Linear Algebra and Differential Equations (Math 54, TA)
Fall 2013   Differential Calculus (Math 1A, TA)
Spring 2013 Proof-Based Linear Algebra (Math 110, TA)
Sum. 2012   Elementary Linear Algebra and Differential Equations (Math 54, Instructor)
Fall 2011   Elementary Linear Algebra and Differential Equations (Math 54, TA)
Sum. 2011   Differential Calculus (Math 1A, Instructor)
Spring 2011 Differential Calculus (Math 1A, TA)
Fall 2010   Differential Calculus (Math 1A, TA)

Additional Pedagogical Activities

2017 − Now **Dr Peyam Youtube Channel** Created a YouTube channel, where I regularly post mathematics videos ranging from Calculus all the way to Partial Differential Equations. It currently has over 148,000 subscribers and 980 videos. Prior to Zoom, I used my channel to hold Virtual Office Hours with my students, and to have virtual review sessions. In addition, my Real Analysis course in Spring 2020 was taught entirely through YouTube.

2020 − 2022 **Morning Star Institute Instructor** In cooperation with the Morning Star Institute in Irvine, I was teaching a group of 8 grade 5 students how to solve math competition problems, taken from the AMC 8/10 competitions. Responsible for designing weekly lessons, homework assignments, and typing up course notes. The course was held online, via Zoom. In 2020, I taught a similar course, but with Kangaroo competition problems, and geared to grade 1 students.

2021 − 2022 **TAMU Math Teaching Seminar** I created and co-organized a *Teaching Trail Mix Table* Seminar in the math department at TAMU, where anyone interested in teaching meets on a monthly basis and shares their teaching ideas. Each meeting started with a 20 min presentation, followed by an open discussion of the seminar topic, or of general teaching topics. Some seminar topics were *Visualizations in Multivariable Calculus* and *Preparing for finals*.

2019 − 2020 **Reading course in PDE**. Led a reading course with 7 advanced undergraduates in Spring 2019, where we read through Chapter 2 of Evans' classic graduate PDE book. During the weekly meetings, we went through the main points of the reading and I answered students' questions. I led a similar reading course in Spring 2020, but with 20 undergraduates, and online via Zoom

Fall 2019 **UCI Teaching Lunches** Created an informal teaching seminar at UCI, where faculty and graduate students meet on a weekly basis and share their teaching experience and teaching strategies. It consisted of 6 people and we discussed topics such as *How to increase student participation* and *How to write a good exam*

Outreach

2021−2022 **TAMU Math Circle Coordinator** Responsible for recruiting leaders for the three levels of the Discovery portion of the TAMU Math Circle. In addition, I was co-teaching the Beginner Level of the Problem Solving part of the Math Circle. I presented four 90-minute sessions per semester, where I taught effective problem-solving strategies to a group of 20 pre-algebra students. The problems were taken from the Art of Problem Solving textbook.

Fall 2021 **TAMU Math Diversity Reading Group** Formerly a member of the *Diversity Reading Group* in the TAMU math department, where a group of graduate students and affiliates met monthly to discuss a reading on diversity issues. For example we discussed the article *Requiem for a Dream,* which underlines the challenges faced by a former DACA Dreamer. In addition, I was actively recruiting speakers for the panel *Collaborating Across Diverse Backgrounds,* organized by the Math Graduate Student Diversity Committee.

2021−Now **TAMU Aggie Ally** Attended a workshop at TAMU and became certified as an Aggy Ally. Allies include staff, faculty, and students at TAMU, who are willing and certified to provide a safe haven, a listening ear, and support for lesbian, gay, bisexual, and transgender people or anyone dealing with sexual orientation issues.

2017 − 2020 **UCI Math Circle Level 1 Coordinator and Webmaster**. Responsible for recruiting math circle leaders and providing feedback on class materials. Designed and led 4 math circle sessions, on the following topics: *The Towers of Hanoi, The Fibonacci sequence, Mission to Mars*, and *Numbers and Divisibility*. In charge of the Math Circle website and making sure all the information is up-to-date

Winter 2020 **Diversity Talks Co-organizer** In cooperation with the AWM at UCI, I helped organize a series of talks in Winter 2020, where a faculty member of an underrepresented minority would speak about their experience in math academia. On February 5, Prof. Ron Buckmire from Occidental College spoke about *The nonempty intersection between LGBT and Mathematics*, and on February 20, Prof. Susan Friedlander from USC spoke about *Women in Applied Mathematics*

Talks

2022   Texas A&M Teaching Seminar: Using YouTube to promote student learning

2022   JMM Session on Math in New Media: Using YouTube to promote student learning (cancelled, prerecorded talk)

2022	UC Irvine Special Colloquium: Using YouTube to promote student learning
2021	UC Irvine Science Communication Series: Spreading the Math: Using YouTube to communicate with the rest of the world
2021	UC Berkeley Math Advising Talk: How I Learned to Love Real Analysis
2020	SUNY Albany Math Teachers Workshop: Joy of Fractional Derivatives
2020	Fall 2020 ArizMATYC Conference: Using YouTube to promote student learning
2020	UChicago Undergraduate Math Club Talk: It's all about Chemistry!
2020	ASU Undergraduate Math Seminar: Using YouTube to promote student learning
2020	CSUSM Mathematics Undergraduate Colloquium: It's all about Chemistry!
2020	UWyoming Teaching Colloquium: Examples, Engagement, and YouTube
2020	KU Teaching Colloquium: Examples, YouTube, and Chain Rule
2020	CMU Undergraduate Math Club Talk: It's all about Chemistry!
2020	JMM MAA General Contributed Paper Session on Math and Technology, History, and Logic: Using YouTube to promote student learning
2019	UCI Nonlinear PDE Seminar: Chemical Reactions and Diffusions
2019	UCI Undergraduate Math Association: Chemical Reactions and Diffusions
2019	Fall 2019 SoCal-Nevada MAA Section Meeting Contributed Paper Session: Using YouTube to promote learning inside and outside the classroom
2019	CSULB Colloquium: Chemical Reactions and Diffusions
2017	Williams College Math/Stat Faculty Seminar: Chemical Reactions and Diffusions
2016	UCB Student PDE Seminar: Chemical Reactions and Diffusions
2016	UCB Student PDE Seminar: Admissible speeds of transition fronts for nonautonomous monostable equations
2016	UCB Student PDE Seminar: A homogenization approach for motor proteins
2015	UCB Student PDE Seminar: Reaction-Diffusion and Propag. in Inhom. Media
2015	UCB Student PDE Seminar: Introduction to Degree Theory
2015	UCB Student PDE Seminar: Periodic Sol. of the Forced Relativistic Pendulum
2014	UCB Student PDE Seminar: Chemical Reactions and Diffusions
2013	UCB Student PDE Seminar: Chemical Reactions and Diffusions
2013	UCB Student PDE Seminar: De Giorgi-Moser-Nash Estimates
2012	UCB Student PDE Seminar: Chemical Reactions and Diffusions

Conferences attended

2023	Joint Mathematics Meetings 2023, Boston, MA
2022	Houston-LSU-Tamu Undergrad Math Research Conference, UH, Houston, TX
2022	Celebration of Women in Mathematics, Arizona State University, Tempe, AZ
2021	LGBTQ+ Math Day, Fields Institute for Mathematical Research, Toronto, ON
2020	LGBTQ+ Math Day, Fields Institute for Mathematical Research, Toronto, ON
2020	Fall 2020 ArizMATYC Conference, AZ
2020	Joint Mathematics Meetings 2020, Denver, CO
2019	Fall 2019 SoCal-Nevada MAA Section Meeting, UNLV, Las Vegas, NV
2019	SCAPDE Conference: Reaction, Diffusion, and Homogenization, UCI, Irvine, CA
2018	IPAM Summer School: Mean Field Games and Apps., UCLA, Los Angeles, CA

2017	CIME Summer School: Geometry of PDE and Related Problems, Cetraro, Italy
2016	PIRE-CNA Summer School: New Frontiers in the Nonlinear Analysis of Materials, Carnegie-Mellon University, Pittsburgh, PA
2015	Eighth Summer School in Analysis and Applied Mathematics, Università di Roma, Rome, Italy
2015	Thirteenth Workshop on Interactions between Dynamical Systems and PDE, Universitat Politècnica de Catalunya, Barcelona, Spain
2014	CIME Summer School:PDE and Geometric Measure Theory, Cetraro, Italy
2013	CNA Summer School: Topics in Nonlinear PDE and Calculus of Variations, with Applications in Material Science, CMU, Pittsburgh, PA, USA
2009	Princeton Summer Program in Analysis and Geometry, Princeton, NJ, USA

Languages Spoken

German (mother-tongue)
Farsi (mother-tongue)
French (native speaker)
English (native speaker)
Spanish (2 years experience)
Arabic (2 years experience)

References

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