

# DORSA GHOREISHI

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## EDUCATION

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### **Ph.D., Mathematics**

May 2020

University of Missouri, Columbia, MO

- Dissertation: *Phase Retrieval with Projections*
- Advisor: Dr. Peter Casazza

### **M.A., Mathematics**

May 2019

University of Missouri, Columbia, MO

- Thesis: *Weak Phase Retrieval and Phaseless Reconstruction*

### **Bachelor's Degree, Math and Applications**

July 2014

Khajeh Nasir Toosi University of Technology, Tehran, Iran

## EXPERIENCE

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### **Graduate Research Assistant**

August 2015 - Present

University of Missouri, Columbia, MO

- Present an innovative approach to define phases in matrix forms which leads to find new methods in phase retrieval
- Collaborate with members of Frame Research Center to create a new area in phase retrieval called weak phase retrieval which opened a new field of research
- Adapt different methods in geometry and convex bodies to study many problems in norm retrieval
- Provide a complete classification of norm retrieval and phase retrieval to make it more accessible for applications in applied physics and engineering

### **Graduate Teaching Assistant**

January 2015 - Present

University of Missouri, Columbia, MO

- Experience teaching and instructing different courses including Differential Equations, Calc I, Calc II, Calc III, Calculus for Social Sciences and College Algebra both as a teaching assistant and a main instructor. Each semester more than 60 students
- Design, write and implement curriculum for calculus courses. Supervise and coordinate recitation instructors
- Construct and manage online courses for summer classes

### **Graduate Student Mentor**

August 2017 - Present

University of Missouri, MO

- Observe graduate teaching assistants to evaluate their teaching skills
- Provide teaching strategies, communication skills development and use of technology in teaching

### **Undergraduate Research Mentor**

June 2019 - Present

University of Missouri, MO

- Introducing a project to an undergraduate student and guiding them through research by discussing their step by step progress and providing background information

### **Academic Tutor**

June 2018 - August 2018

Mizzou Made Academic Tutoring, Columbia, MO

- Mathematics and Statistics tutor for athletic students in both private and group sessions

## GRANTS AND AWARDS

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- Excellence in Teaching Award, May 2018, University of Missouri
- Certificate of Recognition for Outstanding GPA, May 2013, K.N.Toosi University of Technology

## PUBLICATIONS

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1. Casazza, P.G., Ghoreishi, D., Jose, S. and Tremain, J.C., 2017. *Norm retrieval and phase retrieval by projections*. Axioms, 6(1), p.6.
2. Botello-Andrade, S., Casazza, P.G., Ghoreishi, D., Jose, S. and Tremain, J.C., 2016. *Weak phase retrieval and phaseless reconstruction*. arXiv preprint arXiv:1612.08018.
3. Botelho-Andrade, S., Casazza, P.G., Ghoreishi, D., Jose, S. and Tremain, J.C., 2017. *Weak Phase Retrieval*. In Compressed Sensing and its Applications (pp. 221-234). Birkhäuser, Cham.

## SERVICES

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- Graduate Analysis Seminar organizer, August 2019- present, University of Missouri
- President and one term vice president of the AWM Student Chapter, August 2018 - May 2020, University of Missouri
- Vice president of the AMS Student Chapter, August 2017 - May 2019, University of Missouri
- Active member of the Graduate Professional Council, University of Missouri

## CONFERENCES, TALKS AND WORKSHOP PARTICIPATIONS

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- Talks
  - "Phase Retrieval", September 2019, 43rd annual meeting of the SIAM-SEAS Southeastern Atlantic Section, University of Tennessee-Knoxville, TN
  - "Weak Phase Retrieval and Phaseless Reconstruction", April 2019, 7th Women in Mathematics Symposium, University of Iowa, IA
  - "Introduction to Frame Theory" at the Analysis Seminar, May 2018, University of Missouri
  - "Phase Retrieval" at the AMS Student Chapter Seminar, April 2017, University of Missouri
  - "Weak Phase Retrieval" at the Graduate Analysis Seminar, October 2016, University of Missouri
- Attended Workshops
  - 43rd annual meeting of the SIAM-SEAS Southeastern Atlantic Section, University of Tennessee-Knoxville, TN
  - Analysis in Missouri: a Midwestern Symposium, September 2019, University of Missouri, MO
  - Spring Opportunities Workshop, April 2019, American Institute of Mathematics, San Jose, CA
  - 7th Women in Mathematics Symposium, April 2019, University of Iowa, IA
  - 7th International Conference on Computational Harmonic Analysis in conjunction with the 33rd annual Shanks Lecture, May 2018, Vanderbilt University, TN
  - 6th Midwest Women in Mathematics Symposium, April 2018, Purdue University, IN
  - NSF Decoding Science Communication and Training Program, August 2017, University of Missouri, MO
  - NSF/CBMS Conference on Sparse Approximation and Signal Recovery Algorithms, May 2017, New Mexico State University, NM