

Dorsa Ghoreishi

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EDUCATION

Ph.D., Mathematics

May 2020

University of Missouri, Columbia, MO

- Dissertation: *Phase Retrieval in Frame Theory*
- Advisor: Prof. Peter Casazza

B.S., Applied Mathematics

May 2014

K.N.Toosi University of Technology, Tehran, Iran

PROFESSIONAL APPOINTMENTS

Assistant Professor

July 2023 - Present

Department of Mathematics and Statistics
Saint Louis University, St. Louis, MO

Visiting Assistant Professor

August 2020 - June 2023

Department of Mathematics and Statistics
Saint Louis University, St. Louis, MO
Mentor: Dr. Daniel Freeman

GRANTS AND AWARDS

- National Science Foundation Research Grant, “Frame theory and phase retrieval”, DMS-2154931, \$332,696, June 2022 - May 2025.
- Stolle Award (faculty development award), Saint Louis University, March 2020, September 2021, and September 2022.
- MO Project NExT fellow, October 2020 - present.
- Excellence in Teaching Award, University of Missouri, May 2018

PUBLICATIONS

- Alharbi, W., Alshabhi, S., Freeman, D., Ghoreishi, D., and Johnson, B. *Saturation recovery*, in preparation.
- Alharbi, W., Freeman, D., Ghoreishi, D., Lois, C., and Sebastian, S. (2022), *Stable phase retrieval and perturbations of frames*, arXiv:2212.13681, submitted. to be appear on the Proceedings of the American Mathematical Society.
- Alharbi, W., Alshabhi, S., Freeman, D. and Ghoreishi, D. (2022), *Locality and stability for phase retrieval*, arXiv:2210.03886, submitted.
- Freeman, D., and Ghoreishi, D. (2021), *Discretizing L_P norms and frame theory*, JMAA, Volume 519, Issue 2
- Casazza, P.G., and Ghoreishi, D. (2020), *Phase retrieval by projections in R^n requires $2n - 2$ projections*, arXiv:2012.10738.

- Casazza, P.G., Ghoreishi, D., Jose, S. and Tremain, J.C. (2017), *Norm retrieval and phase retrieval by projections*, Axioms, 6(1), p.6.
- Botelho-Andrade, S., Casazza, P.G., Ghoreishi, D., Jose, S. and Tremain, J.C. (2017), *Weak Phase Retrieval*, Compressed Sensing and its Applications (pp. 221-234). Birkhäuser, Cham.

MENTORSHIP EXPERIENCE

- Co-advising
- Research mentor for an undergraduate student at Denver University, through AWM Mentor Network Program, January 2022 - present
- Faculty advisor for AWM student chapter, Saint Louis University, September 2021 - present
- Teaching development mentor for new graduate teaching assistants, University of Missouri, August 2017 - May 2020.
- Research mentor for an undergraduate student, Frame Research Center, University of Missouri, June 2018 - May 2019.

TEACHING EXPERIENCE

- Saint Louis University:
 - Math1400: Precalculus
 - Math1510: Calculus I
 - Math1520: Calculus II
 - Math3110: Linear Algebra for Engineers
 - Math3270: Advanced Math for Engineers
 - Math3550: Differential Equations
 - Math4550: Non-linear Dynamics and Chaos
- University of Missouri-Columbia:
 - MATH2300: Calculus III
 - MATH1700: Calculus II (Recitation sessions)
 - MATH4100/7100: Ordinary Differential Equations
 - MATH1500: Analytical Geometry and Calculus
 - MATH1100: College Algebra
 - MATH2320: Discrete Mathematical Structures
 - MATH1400: Calculus I (Recitation sessions)

SERVICES

- Faculty advisor for AWM student chapter, Saint Louis University, September 2021 - present
- Colloquium committee member, Saint Louis University, August 2021 - present
- Program and assessment committee member, Saint Louis University, August 2021 - May 2022.
- Graduate analysis seminar organizer, University of Missouri, August 2019 - May 2020
- President of the AWM student chapter, University of Missouri, August 2018 - May 2020
- Vice president of the AMS Student Chapter, University of Missouri, August 2017 - May 2019
- Active member of the Graduate Professional Council, University of Missouri

CONFERENCES, TALKS AND WORKSHOP PARTICIPATION

- Talks
 - “Stable Phase Retrieval under Perturbations”, International Conference on Approximation Theory and Beyond, Vanderbilt University, May 2023, Nashville, TN
 - “Stable Phase Retrieval and Perturbations of Frames”, AMS Spring Central Sectional Meeting, April 2023, Cincinnati, OH
 - “Stable Phase Retrieval and Norm Discretization”, 8th International Conference in Computational Harmonic Analysis(ICCHA22), September 2022, Ingolstadt, Germany
 - “Discretizing L_p Norms and Frame Theory”, MSRI Special Session on Frame Theory and Applications, April 2022, Virtual Joint Mathematics Meetings
 - “Discretizing L_p Norms and Frame Theory”, March 2022, Vanderbilt University, Virtual
 - “Discretizing L_p Norms”, TWIMS, Rice University, February 2022, Houston, TX
 - “Introduction to Weak Phase Retrieval”, 45th Annual New York State Regional Graduate Mathematics Conference, March 2020, Syracuse University, NY
 - “Phase Retrieval”, 43rd annual meeting of the SIAM-SEAS Southeastern Atlantic Section, September 2019, University of Tennessee-Knoxville, TN
 - “Weak Phase Retrieval and Phaseless Reconstruction”, 7th Women in Mathematics Symposium, April 2019, 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 conferences and workshops
 - International Conference on Computational Harmonic Analysis (ICCHA21), September 2021, Virtual
 - Joint Mathematics Meetings, January 2020, Denver, CO

- 43rd annual meeting of the SIAM-SEAS Southeastern Atlantic Section, September 2019, University of Tennessee, 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 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