

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

M.A., Mathematics

May 2019

University of Missouri, Columbia, MO

- Thesis: *Weak Phase Retrieval and Phaseless Reconstruction*

B.S., Applied Mathematics

May 2014

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

PROFESSIONAL APPOINTMENTS

Visiting Assistant Professor

August 2020 - Present

Department of Mathematics and Statistics

Saint Louis University, St. Louis, MO

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 and September 2021
- Missouri section of MAA Project NExT fellow, 2020-present.
- Dissertation Research Travel Award, University of Missouri, October 2019
- 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. and Sebastian, S. *Perturbations of frames which do stable phase retrieval*, in preparation.
- Alharbi, W., Alshabhi, S., Freeman, D. and Ghoreishi, D., 2022, *Locality and stability for phase retrieval*. arXiv:2210.03886, submitted.
- Ghoreishi, D. and Valettas, P., *Invertibility and robustness of phase retrieval*, in preparation.
- Freeman, D. and Ghoreishi, D., 2021 *Discretizing L_P norms and frame theory*. arXiv:2109.14454, to appear in J. Math. Anal. and Appl.
- Casazza, P.G., 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

- 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
- 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 - present

- 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 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