

Debdeep Bhattacharya

CONTACT INFORMATION	Department of Mathematics The George Washington University 2115 G Street, NW Washington, DC, 20037	Email: debdeepbh@gwu.edu Website: http://debdeepbh.github.io																																	
RESEARCH INTERESTS	Analysis of Partial Differential Equations, especially nonlinear dispersive equations, Scientific Computing, Signal Processing, Applied Mathematics																																		
EDUCATION	Department of Mathematics, The George Washington University Graduate Student, Mathematics (Ph.D. expected in May 2020) Advisors: Prof. Frank Baginski and Prof. Svetlana Roudenko Tata Institute of Fundamental Research Centre for Applicable Mathematics, Bengaluru, India Master of Science (MSc) in Mathematics, May 2014 Indian Statistical Institute, Bengaluru, India Bachelor in Mathematics, May 2012																																		
SUMMER RESEARCH EXPERIENCE	University of Hawaii at Manoa Visiting Scholar, Summer 2018 Supervisor: Prof. Peter Gorham Oak Ridge National Laboratory Mathematical Sciences Graduate Internship (MSGI), National Science Foundation (NSF), Summer 2019 Supervisor: Dr. Pablo Seleson																																		
PUBLICATIONS	<ul style="list-style-type: none">• Global well-posedness for low regularity data in the 2d modified Zakharov-Kuznetsov equation with Luiz Gustavo Farah and Svetlana Roudenko (Submitted) (link)• Generalized ForWaRD algorithm for multi-antenna model (In preparation)																																		
TEACHING EXPERIENCE	<table><tr><td>Fall</td><td>2019</td><td>Teaching assistant, Calculus III</td></tr><tr><td>Spring</td><td>2019</td><td>Teaching assistant, Calculus I</td></tr><tr><td>Fall</td><td>2018</td><td>Teaching assistant, Calculus II</td></tr><tr><td>Spring</td><td>2018</td><td>Teaching assistant, Calculus I</td></tr><tr><td>Fall</td><td>2017</td><td>Teaching assistant, Calculus with Pre-calculus I</td></tr><tr><td>Summer</td><td>2017</td><td>Instructor, Linear Algebra</td></tr><tr><td>Spring</td><td>2017</td><td>Grader, Partial Differential Equation</td></tr><tr><td>Fall</td><td>2016</td><td>Teaching Assistant, Calculus I</td></tr><tr><td>Summer</td><td>2016</td><td>Instructor, Calculus with Pre-calculus - I</td></tr><tr><td>Spring</td><td>2016</td><td>Teaching Assistant, Calculus for Social and Management Sciences</td></tr><tr><td>Fall</td><td>2015</td><td>Teaching Assistant, Calculus with Pre-calculus - I</td></tr></table>		Fall	2019	Teaching assistant, Calculus III	Spring	2019	Teaching assistant, Calculus I	Fall	2018	Teaching assistant, Calculus II	Spring	2018	Teaching assistant, Calculus I	Fall	2017	Teaching assistant, Calculus with Pre-calculus I	Summer	2017	Instructor, Linear Algebra	Spring	2017	Grader, Partial Differential Equation	Fall	2016	Teaching Assistant, Calculus I	Summer	2016	Instructor, Calculus with Pre-calculus - I	Spring	2016	Teaching Assistant, Calculus for Social and Management Sciences	Fall	2015	Teaching Assistant, Calculus with Pre-calculus - I
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HONORS AND AWARDS

- Dean's Conference Travel Grant, The George Washington University, 2017
- Columbian College of Arts and Sciences Fellowship, The George Washington University, 2015 – present
- Junior Research Fellowship from Tata Institute of Fundamental Research, India, 2012–2014
- INSPIRE Scholarship from Department of Science and Technology, Government of India, 2010-2012
- Student Fellowship from Indian Statistical Institute, 2009-2012

TALKS

- *Reduction of 3D axisymmetric models to 2D in peridynamics*, Computational and Applied Math (CAM) seminar, Computer Science and Mathematics Division, Oak Ridge National Laboratory, August 8, 2019
- *Fourier-Wavelet Regularized deconvolution (ForWaRD) in multi-antenna setup*, RIT in Applied Harmonic Analysis, Norbert Weiner Center, University of Maryland, May 13, 2019
- *Global Well-posedness of 2d Modified Zakharov-Kuznetsov Equation for Low-regularity Data*, Spring 2019 conference on Applied Mathematics, George Washington University, May 4, 2019
- *Deconvolution in a multi-antenna setup and application to ANITA data*, Antarctic Impulse Transient Antennae (ANITA) collaboration, December 10, 2018
- *Deconvolution problem and its application to ANITA data*, University of Hawaii at Manoa, June 28, 2018
- *The I-method and its applications*, Graduate Student Seminar, The George Washington University, October 27, 2017

POSTER PRESENTATIONS

- *Fracture modeling in axisymmetric problems using peridynamics*, Oak Ridge Postdoctoral Association (ORPA) Research Symposium, Oak Ridge National Laboratory, August 6, 2019
- *Global Well-posedness of 2d Modified Zakharov-Kuznetsov Equation for Low-regularity Data*, 2019 Workshop on Nonlinear Dispersive Partial Differential Equations and Inverse Scattering, The Fields Institute, Toronto, Canada, May 21 - 24, 2019
- *Global Well-posedness of 2d Modified Zakharov-Kuznetsov Equation for Low-regularity Data*, GW Research Days, George Washington University, April 9, 2019

RESPONSIBILITIES

- Organized GWU-SIAM conference on Applied Mathematics, April 29, 2017 with Eric Shehadi and Chong Wang
- Vice president of the SIAM chapter at the George Washington University, January 2016 - 2018

CONFERENCES, WORKSHOPS AND PROJECTS

- IAS/PCMI 2018 Summer Graduate School on Harmonic Analysis, July 1-21, 2018, Park City, Utah, USA
- February Fourier Talks, February 15-16, 2018, University of Maryland, USA
- Dispersive Equations, Solitons, and Blow-up, September 4 - 8, 2017, Hausdorff Center of Mathematics, Bonn, Germany
- French-American Conference on Nonlinear Dispersive PDEs, June 12 - 16, 2017, Centre International de Rencontres Mathématiques (CIRM), Luminy, Marseille, France
- Research School on 'Random Structures in Statistical Mechanics and Mathematical Physics', March 6 -10, 2017, Centre International de Rencontres Mathématiques (CIRM), Luminy, Marseille, France
- PDE/Analysis Mini School on 'Dynamics of the energy critical wave equations' by Thomas Duyckaerts, University of North Carolina, Chapel Hill, 13-15 February, 2017

- PDE/Analysis Mini School on ‘Random Schrödinger operators: Basic properties, localization, and spectral statistics’ by Peter Hislop, University of North Carolina, Chapel Hill, 27-28 October 2016
- Workshop on ‘Getting Started with PDEs’, The Hebrew University, Jerusalem, Israel, September 11 - September 15, 2016
- Third Chicago Summer School In Analysis, University of Chicago, June 13 - June 24, 2016
- PIRE-CNA 2016 Summer School on ‘New Frontiers in Nonlinear Analysis for Materials’, Carnegie Mellon University, Pittsburgh, June 2-10, 2016
- Workshop on Finite Element Method on Navier Stokes Equations, Indian Institute of Science, September, 2014
- Compact Course on Navier Stokes Equations, Tata Institute of Fundamental Research Centre for Applicable Mathematics (TIFRCAM), Bangaluru, India, June, 2014
- Completed a semester-long course on Mathematical Modelling at TIFRCAM, Bangaluru, India, August – December, 2012
- Advanced Instructional School on Analysis and Geometry, July, 2013, TIFRCAM, India
- ATM Workshop on Riemannian Geometry, 16th-28th July, 2012, TIFRCAM, India.
- Summer Research Programme at Indian Institute of Science Education and Research (IISER), Mohali, under the guidance of Prof. Kapil Hari Paranjape in 2011 on Differential Geometry

REFERENCES

- **Prof. Frank Baginski**, Chair, Department of Mathematics, The George Washington University, Email: baginski@gwu.edu
- **Prof. Svetlana Roudenko**, Professor, Department of Mathematics and Statistics, Florida International University, Email: sroudenko@fiu.edu