

CONTACT INFORMATION	Department of Mathematics Purdue University 150 North University Street West Lafayette, Indiana 47907-2067	<i>Mobile:</i> (937) 657-2060 <i>E-mail:</i> shapiroj@purdue.edu <i>Office:</i> MATH 1027 <i>Website:</i> jzshapiro.weebly.com
RESEARCH INTERESTS	Partial differential equations, microlocal analysis, and scattering resonances.	
EDUCATION	PhD, Purdue University, Mathematics Advisor: Prof. Kiril Datchev.	May 2018 (anticipated)
	MA, Mathematics, Miami University	August 2012
	BA, Mathematics and Physics, Denison University <i>Summa Cum Laude</i>	May 2010
PUBLICATIONS AND PREPRINTS	<ol style="list-style-type: none"> <li>1. <i>Semiclassical resolvent bounds in dimension two</i>, accepted to <i>Proc. Amer. Math. Soc.</i></li> <li>2. <i>Local energy decay for Lipschitz wavespeeds</i>, in progress</li> <li>3. <i>Electron Affinity of Arsenic and the Fine Structure of <math>As^-</math> Measured using Infrared Photodetachment Threshold Spectroscopy</i>, with C.W. Walter, N.D. Gibson, R.L. Field III, A.P. Snedden, C.M. Janczak, D. Hanstorp, <i>Physical Review A</i> <b>80</b>, 014501 (2009)</li> </ol>	
GRANTS AND FUNDING	Bilsland Dissertation fellowship Purdue Research Foundation grant	Fall 2017 2016-2017
TEACHING EXPERIENCE	Purdue University MA 161 Active Learning Calculus I    Recitation instructor    Fall 2015 MA 162 Calculus II    Co-instructor    Summer 2015 MA 161 Calculus I    Recitation instructor    Fall 2014  Miami University MTH 151 Calculus I    Instructor    Spring 2012 MTH 123 Precalculus    Instructor    Fall 2011 MTH 104 Precalculus with Algebra    Instructor    Fall 2010	
RESEARCH TALKS	<ol style="list-style-type: none"> <li>1. <i>Local energy decay for Lipschitz wavespeeds</i> June 2017    Great Lakes Mathematical Physics Meeting, Michigan State University</li> <li>2. <i>Semiclassical resolvent bounds in dimension two</i> November 2016    Graduate research day, Purdue University June 2016    Great Lakes Mathematical Physics Meeting, Michigan State University April 2016    AMS sectional meeting, North Dakota State University March 2016    6th Ohio River Analysis Meeting, University of Kentucky February 2016    15th New Mexico Analysis Seminar, University of New Mexico</li> <li>3. <i>Scattering resonances with applications to wave decay</i> January 2016    Graduate student colloquium, Purdue University</li> <li>4. <i>Improving performance of investment portfolio optimization</i> October 2016    Mathematics department seminar, Rose-Hulman Institute of Technology</li> <li>5. <i>Exploring mathematical opportunities in industry: Math-to-Industry Boot Camp II</i> January 2017    Graduate student colloquium, Purdue University</li> </ol>	

6. *Knot mosaics 101: an introduction to knot mosaics*  
 May 2010 MathFest, Pittsburgh, PA

POSTER  
 PRESENTATIONS

1. *An introduction to knot mosaics* (with J. Paat)  
 January 2010 Joint Mathematics Meetings, San Francisco, CA
2. *Photodetachment of  $As^-$*  (with R. Field, A. Snedden)  
 October 2007 American Physical Society sectional meeting, Miami University

SCHOOLS AND  
 CONFERENCES  
 ATTENDED  
 (INCLUDING  
 UPCOMING)

Math-to-Industry Boot Camp June-July 2016  
 Institute for Mathematics and its Applications, University of Minnesota  
 19th Applied Management Principles program May 2016  
 Purdue University Krannert School of Management  
 77th midwest PDE seminar May 2016  
 University of Cincinnati  
 Mini-school, *Long time estimates of solutions to Hamiltonian nonlinear PDEs* February 2016  
 University of North Carolina  
 NSF-CBMS Conference on Inverse Scattering and Transmission Eigenvalues May 2014  
 University of Texas at Arlington  
 AMS sectional meeting September 2011  
 Wake Forest University

AWARDS

*Andrews Assistantship*, Purdue University August 2012  
 Two year fellowship awarded to advanced students entering PhD program  
*Zoltners Scholarship*, Purdue University August 2012  
*Faculty Prize*, Miami University May 2012  
 Recognition of outstanding academic achievement as a masters student  
*John L. Gilpatrick Mathematics Award*, Denison University May 2010  
 Presented to most outstanding senior major  
 Prize winning presentation, MathFest May 2010  
 Prize winning poster, Joint Mathematics Meetings January 2010

WORK EXPERIENCE

Research intern, Air Force Research Lab Summer 2017  
 Undergraduate researcher, Denison University Summer 2007, Summer 2008  
 Performed laser photodetachment experiments to reduce  
 uncertainty in electron affinity measurement by a factor of two.

SERVICE

Graduate student representative 2016-2017  
 Co-organizer for graduate research day  
 Co-organizer for graduate student recruitment weekend  
 Co-organizer for Pi-Day educational outreach  
 New student mentor, Association for Women in Mathematics 2015-2016  
 New student mentor, Purdue College of Science Fall 2016

EXTRAMURAL  
 ACTIVITIES

Treasurer for Purdue Salsa Dance Club 2013-2014  
 Purdue Mathematics department intramural softball captain 2012-2015

TECHNICAL  
 PROFICIENCIES

C, Java, LaTeX, Matlab, Mathematica, Python, R.