

# Robert A. Bridges

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## Purdue University

Department of Mathematics  
150 North University Street  
West Lafayette, IN 47907  
(765)494-5954

### Education

- Ph.D. Mathematics, Purdue University, GPA 3.96/4.00 Summer 2012
- B.S. Mathematics, Summa Cum Laude, Creighton University, GPA 3.99/4.00 May 2005

### Grants, Fellowships, Scholarships

- Research supported by Dr. Bell's NSF Analysis and Cyber-enabled Discovery Initiative Programs, grant number DMS-1001701 Spring 2011
- Purdue University Graduate Student Summer Research Grant Summer 2009, 2010
- VIGRE Fellowship, Purdue University 01/2007 - 08/2007
- Ross Fellowship, Purdue University 08/2005 - 08/2006
- Creighton Academic Scholarship 08/2001 - 05/2005
- John Murphy Endowed Scholarship, Creighton University 08/2001 - 05/2005
- John and Charlotte Endowed Scholarship, Creighton University 08/2003 - 08/2005

### Awards

- Purdue University Outstanding Graduate T. A. award April 2009
- Purdue University Math Department Excellence in Teaching award November 2008
- Earned Purdue University Math Department title of "Outstanding T.A." August 2008
- Creighton University Philosophy Department Ratio award May 2005

### Mathematical Consultation

- I worked as a math consultant for Ogre Industries using techniques of numerical linear algebra to accurately measure parts with a CMM. Summer 2010

### Publications

- *Schroeder's Equation in Several Variables* submitted. <http://arxiv.org/abs/1106.3370>.

### Teaching

- Thirteen of the courses I have taught provided a student evaluation of my teaching. For brevity, listed are the median response on a scale of 1 to 5 to the question "Overall I would rate this instructor as \_\_\_\_." Scores: 4.1, 4.2, 4.3, 4.4, 4.4, 4.5, 4.8, 4.8, 4.8, 4.8, 4.9, 4.9, 5.0.

#### ◊ PURDUE UNIVERSITY

- Ordinary differential equations, instructor Spring 2012
- Graduate analysis recitation/problem session, instructor Fall 2011, 2009, 2008
- Graduate real analysis qualifying exam preparatory course, instructor Summer 2011, 2008
- First calculus course for biology students, instructor Fall 2010
- Second calculus course for technology students, instructor Spring 2010
- Emergency substitute math T.A. Spring 2012, 2010, Fall 2009, 2008
- Third math course for elementary education students, instructor Spring 2009, Fall 2007
- First calculus course for agriculture students, instructor Spring 2008
- First calculus course for engineering students, recitation instructor Fall 2006

#### ◊ CREIGHTON UNIVERSITY

- Math tutor 2002-2005

### Grading

- Graduate complex analysis Spring 2012
- Graduate real analysis Fall 2011, 2009, 2008

- Undergraduate real analysis Spring 2010, 2009
- Calculus midterm exams Spring 2010
- Undergraduate complex analysis Fall 2009
- Undergraduate differential equations Spring 2008

### Activities

- Purdue University Graduate Senator Fall 2010- Spring 2011
- Purdue University Graduate Student Affairs Committee member Fall 2010- Spring 2011
- Purdue University Campus Appeals Board Fall 2010- Spring 2011
- Purdue Mathematics Department Graduate Representative Fall 2007- Spring 2008
- REU at California Polytechnic State University Summer 2004

### Seminar Presentations

- “The Model for Iteration & Schroeder’s Equation in Several Variables” Purdue University Geometric Analysis Seminar November 4, 2011
- “Invest in Yourself- Information about Math Grad School” Purdue University Undergraduate Math Seminar (by invitation) October 13, 2011
- “An Exciting and Fun Introduction to Composition Operators” Purdue University Graduate Student Colloquium October 5, 2011
- “Schroeder’s Equation in Several Variables” University of Toledo Complex Analysis Seminar (by invitation) September 8, 2011
- “A Solution to Schroeder’s Equation in Several Variables” IUPUI Operator Theory Seminar (by invitation) April 20, 2011

#### ◊ PURDUE UNIVERSITY STUDENT ANALYSIS SEMINAR

- “A Riemann Surfaces of Germs, and Complete Analytic Functions” Spring 2009
- “Hyperbolic Geometry on the Disk” Spring 2009
- During Summer 2009 I gave approximately 2 talks each week covering most major topics in an introductory functional analysis course.
- “The Riesz Representation Theorem for  $C(K)$ ” Fall 2008
- “Nets, generalized sequences” Fall 2007

#### ◊ CREIGHTON UNIVERSITY

- “REU topic: Closed Geodesics on 2-Orbifolds of Revolution” Fall 2004

### Conferences

#### ◊ PRESENTATIONS

- “Schroeder’s Equation in Several Variables” Joint Meetings of the MAA-AMS in the Several Complex Variables and Multivariable Operator Theory Special Session (by invitation) January 4-7, 2012
- “Schroeder’s Equation on the Ball in  $\mathbb{C}^n$ ” Southeast Analysis Meetings in honor of John Conway, University of Florida, Gainesville March 2011

#### ◊ ATTENDANCE

- Conference on Complex Analysis for D. Drasin and L. Sons, University of Illinois, Urbana 2010
- Modern Complex Analysis and Operator Theory and Application, IV, El Escorial, Spain 2009
- 6<sup>th</sup> Advanced Course in Operator Theory and Complex Analysis, University of Seville, Spain 2009

### Graduate Advisors

The Purdue Math Department address, found at the top of this CV, applies to all advisors.

Prof. Carl Cowen	Prof. Steven Bell	Dr. Rita Saerens	Prof. Laszlo Lempert
Thesis Advisor	Department Chair	Teaching Supervisor	Department Head
(317)278 – 8846	(765)494 – 1967	(765)494 – 1906	(765)494 – 1908
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