JARED SPECK

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RESEARCH INTERESTS

Nonlinear PDEs, Analysis, General Relativity, Relativistic Field Theories, Mathematical Physics, Fluid Mechanics

EMPLOYMENT

Princeton University, Princeton, NJ
Lecturer, Mathematics Department, *September 2008 - present*

Rutgers University, Piscataway, NJ
Lecturer and Teaching Assistant, Department of Mathematics, *January 2007 - May 2008*

Rutgers University, Piscataway, NJ
Research Assistant, Department of Mathematics, *September 2004 – December 2006*

EDUCATION

Rutgers University, Piscataway, NJ
PhD, Mathematics, *May 2008*
PhD advisors: Michael Kiessling and Shadi Tahvildar-Zadeh
Dissertation: On the Questions of Local and Global Well-Posedness for the Hyperbolic PDEs Occurring in Some Relativistic Theories of Gravity and Electromagnetism

University of Maryland, College Park, MD
BS, Mathematics, *May 2002*, *Summa Cum Laude*

PUBLICATIONS

On the Variational Principle in Relativistic Fluid Mechanics, in preparation.

The Non-Relativistic Limit of the Euler-Nordström System with Cosmological Constant, arXiv reference number: 0810.2369v2. Passed first review for publication in Reviews in Mathematical Physics, 2008.

Well-Posedness for the Euler-Nordström System with Cosmological Constant, arXiv reference number: 0802.2090v3. Accepted for publication in Journal of Hyperbolic Differential Equations, 2008.

An Analysis of the Euler-Nordström System via the Method of Energy Currents, *Proceedings of the Conference on Nonlinear Evolution Equations*, (K. Ecker, J. Shatah, and M. Struwe, ed.), vol. 27, Mathematisches Forschungsinstitut Oberwolfach, 2008, pp. 49-52.

On the Questions of Local and Global Well-Posedness for the Hyperbolic PDEs Occurring in Some Relativistic Theories of Gravity and Electromagnetism, PhD thesis, Rutgers University, Piscataway, NJ, May 2008, 144 pages.

HONORS AND AWARDS

TA Teaching Excellence Award, *Spring 2007*

Graduate Student Seminar Award*, Spring 2005*

GAANN Fellowship, Rutgers University, *2003-2005*

INVITED TALKS

Local Existence for the Euler-Nordström System via the Method of Energy Currents, MFO, Olberwolfach, Germany, *June 2008*

Local Existence for the Euler-Nordström System via the Method of Energy Currents, Princeton Analysis Seminar, Princeton, NJ *March 2008*

Relativistic Fluids, Rutgers Mathematical Physics Seminar, New Brunswick, NJ, *April 2007*

Special Relativity and Minkowski Spacetime, Rutgers Graduate Student Seminar, New Brunswick, NJ, *January 2005*

TEACHING EXPERIENCE

Princeton University
Lecturer
Calculus II, *Fall 2008 and Spring 2009*
Junior Math Seminar Coordinator, *Spring 2009*

Rutgers University
Lecturer
Ordinary Differential Equations, *2006*
Introduction to Linear Algebra, *2007*

Teaching Assistant
Vector Calculus, *2007*
Calculus I, *2008*

SERVICE

Directed Reading Program, Rutgers University, *2004 – 2007*
Met one-on-one with two talented undergraduate math students over the course of several semesters. Introduced them to graduate level topics, guided their course selection, and encouraged them to apply to graduate school.

CONFERENCES AND RESEARCH PROGRAMS ATTENDED

Geometric Analysis: Present and Future (In honor of Shing-Tung Yau), Harvard University, *August 2008*
Clay Mathematics Institute Summer School on Evolution Equations, ETH Zurich, *July 2008*
Conference on Nonlinear Evolution Equations, MFO, *June 2008*
Conference on Nonlinear Waves (In honor of Walter Strauss), Brown University, *May 2008*
AMS Fall Eastern Sectional Meeting, Rutgers University, *October 2007*
"Shellyfest" (In honor of Shelly Goldstein), Rutgers University, *September 2007*
98th Statistical Mechanics Conference, Rutgers University, *December 2007*

REFERENCES

Michael Kiessling	miki@math.rutgers.edu
Shadi Tahvildar-Zadeh	shadi@math.rutgers.edu
Sergiu Klainerman	seri@math.princeton.edu
Igor Rodnianski	irod@math.princeton.edu