

**Employment**

- **Lehigh University**, Assistant Professor, 2009–present.
- **Columbia University**, NSF Postdoctoral Research Fellow, 2006–2009.
- **Columbia University**, Ritt Assistant Professor, 2005–2006.

**Education**

- **Harvard University**, Ph.D. Mathematics, June 2005.  
Thesis: *The behavior of the heat kernel at the cut locus*.  
Adviser: Daniel Stroock.
- **Stanford University**, B.S. Mathematics with honors and distinction (minor in Philosophy), June 1999.  
Undergraduate Thesis Adviser: Robert Finn.

**Publications**

- *Small time heat kernel asymptotics at the sub-Riemannian cut locus* (with D. Barilari and U. Boscain), arXiv:1201.3023v2.
- *Stochastic methods for minimal surfaces*, accepted to the proceedings volume of the Santaló Summer School to be published in the AMS Contemporary Mathematics series.
- *On parabolicity and area growth of minimal surfaces*, accepted to the Journal of Geometric Analysis.
- *Brownian motion and the Dirichlet problem at infinity on two-dimensional Cartan-Hadamard manifolds*, arXiv:0912.0330v1.
- *Brownian motion and the parabolicity of minimal graphs*, arXiv:0810.0669v1.
- *A martingale approach to minimal surfaces*, J. Funct. Anal. **256** (2009), no. 8, 2440–2472.
- *The small-time asymptotics of the heat kernel at the cut locus*, Comm. Anal. Geom. **15** (2007), no. 4, 845–890.
- *Analysis of the cut locus via the heat kernel* (with D. Stroock), Surveys in Differential Geometry, Vol. 9, International Press, Boston (2004), 337–349.
- *Equilibrium configurations for a floating drop* (with A. Elcrat and D. Siegel), J. Math. Fluid Mech. **6** (2004), no. 4, 405–429.
- *C-singular solutions of the capillary problem* (with R. Finn), J. Reine Angew. Math. **512** (1999), 1–25.

**Awards**

- NSF Postdoctoral Research Fellowship, 2006–2009.
- Clay Mathematics Institute Liftoff Fellowship, 2005.
- Certificate of Distinction in Teaching, Harvard University, Fall 2002, Fall 2003, and Spring 2005.
- NSF Graduate Research Fellowship, 2000–2003.
- Fulbright Grant to study at the University of Leipzig, 1999–2000.

**Talks**

- Probability Seminar, NYU/Courant, Spring 2012.
- Stochastics Seminar, Georgia Tech, Spring 2012.
- Probability/Geometry Seminar, UT–Austin, Fall 2011.
- Geometric Analysis Seminar, MIT, Spring 2011.
- Math Department Seminar, University of Padua (Italy), Spring 2011.
- Geometric Analysis Seminar, SISSA (Trieste, Italy), Spring 2011.
- CMAP Seminar, École Polytechnique, Spring 2011.
- Probability Seminar, UT–Austin, Fall 2010.
- Probability Seminar, Cornell University, Fall 2010.
- Math Department Colloquium, Purdue University, Fall 2010.
- Santaló Summer School on Geometric Analysis, University of Granada, Summer 2010.
- Minimal Surfaces Arbeitsgemeinschaft, Oberwolfach, Fall 2009.
- Geometric Analysis Seminar, MIT, Spring 2009.
- Math Department Colloquium, Lehigh University, Spring 2009.
- Analysis and PDE Seminar, Johns Hopkins University, Fall 2008.
- Geometry and Topology Seminar, University of Massachusetts at Amherst, Fall 2008.
- Stochastics Seminar, Georgia Tech, Spring 2008.
- Probability Seminar, NYU/Courant, Fall 2006.
- Analysis and Geometry Seminar, Columbia University, Fall 2006.
- Summer School: Probabilistic and Analytic Perspectives on Contemporary PDEs, Carnegie Mellon University, Summer 2006.
- CUNY Differential Geometry Seminar, Spring 2006.
- Columbia-Princeton Probability Day, Spring 2006.
- Probability Seminar, Columbia University, Fall 2005.
- Probability Seminar, Northwestern University, Spring 2005.
- Stochastic Analysis Seminar, University of Illinois, Fall 2004.
- Analysis Seminar, MIT, Fall 2004.

**Teaching****Lehigh University**

- *Math 23: Calculus III*, Spring 2012.
- *Math 231: Probability and Statistics*, Spring 2012.
- *Math 205: Linear Methods*, Fall 2011.
- *Math 231: Probability and Statistics*, Spring 2011.
- *Math 301: Principles of Analysis I*, Fall 2010.
- *Math 205: Linear Methods*, Fall 2010.
- *Math 23: Calculus III*, Spring 2010.

- *Math 463: Advanced Probability*, Spring 2010.
- *Math 23: Calculus III*, Fall 2009.

**Columbia University**

- *Math W4155: Probability Theory*, Spring 2009.
- *Math V1202: Calculus IV*, Fall 2008.
- *Math W4155: Probability Theory*, Spring 2008.
- *Math V1202: Calculus IV*, Fall 2007.
- *Math V1201: Calculus III*, Spring 2006.
- *Math V2010: Linear Algebra*, Fall 2005.
- *Math V1101: Calculus I*, Fall 2005.

**Harvard University**

- *Quantitative Reasoning 28: The Magic of Numbers*, Head Teaching Fellow, Spring 2005.
- *Quantitative Reasoning 28: The Magic of Numbers*, Fall 2003.
- *Quantitative Reasoning 28: The Magic of Numbers*, Fall 2002.
- *Math Xa: Calculus and Functions*, Fall 2001.
- *Math 23a: Multivariable Calculus*, Fall 2000.

**Service**

- Organizer of math department's colloquium, Lehigh University, 2010–present.
- Half-time member of math department's strategic planning committee, Lehigh University, 2011.
- Member of the hiring committee for the math department's stochastic analysis position, 2010–2011.
- Member of the local organizing committee for the International Symposium on Geometry and Topology at Lehigh University, 2010.
- Have refereed for *Mathematische Zeitschrift*, the *Journal of Geometric Analysis*, *Geometria Dedicata*, and the *Journal of Functional Analysis*.
- Member of the organizing committee for the 31st Midwest Probability Colloquium, 2008–2009.
- Co-organizer of probability seminar, Columbia University, 2008–2009.
- Calculus IV coordinator, Columbia University, Fall 2007.
- Co-organizer of weekly departmental social hour, Harvard University, 2004–2005.
- Co-organizer of graduate student seminar, Harvard University, 2001–2002.

**Address**

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***Robert W. Neel***

***Curriculum Vitae***

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