

**Curriculum Vitae****Betul Orcan-Ekmekci**

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Rice University  
 Department of Mathematics  
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**Academic  
Positions**

**Fall 2011-Current** *G.C. Evans Instructor*  
**Rice University**, Houston, Texas USA

**Spring 2011** *Postdoctoral Fellow*  
**MSRI**, Berkeley, California USA  
 Free Boundary Problems, Theory and Applications

**2005-2010** *Teaching or Research Assistant*  
**University of Texas at Austin**, Austin, Texas USA

**Fall 2008** *Assistant Instructor*  
**University of Texas at Austin**, Austin, Texas USA

**2003-2005** *Teaching Assistant*  
**Bogazici (Bosphorus) University**, Istanbul, TURKEY

**Education**

**December 2010** *Ph.D. Mathematics*  
**University of Texas at Austin**,  
 Advisor: Prof. Luis Caffarelli

**May 2005** *M.S., Mathematics*  
**Bogazici (Bosphorus) University**  
 Advisor: Prof. Alp O. Eden

**May 2003** *B.S., Mathematics*  
**Bogazici (Bosphorus) University**

**Grants**

**2012-2014** *AMS-Simons Travel Grant*

**Awards**

**Fall 2009** *Professional Development Award*, UT-Austin  
**2006** *David Bruton jr. Fellowship*, UT-Austin  
**2005** *Deans Excellence Fellowship*, UT-Austin

**Research  
Interests**

Partial Differential Equations, Free Boundary Problems and Applications, Homogenization Problems in Periodic and Stationary Ergodic Cases, Geometric Variational Problems in Random Media

**Papers &  
Preprints**

1. B. Orcan-Ekmekci, On the Largest Subsolution for a Free Boundary Problem in  $\mathbf{R}^2$ : Elliptic Case, *Calculus of Variations and Partial Differential Equations* (2013), 1-26.
2. B. Orcan-Ekmekci, Homogenization results for a Free Boundary problem with Stationary Ergodic Free Boundary in  $\mathbf{R}^2$ : In the Form of Layers, *Submitted*
3. B. Orcan-Ekmekci, Homogenization results for a Free Boundary problem with Stationary Ergodic Free Boundary in  $\mathbf{R}^2$ : Elliptic Case, *Preprint*
4. R. Hardt, and B. Orcan-Ekmekci, On the highly oscillatory Plateau problem, *Preprint*
5. B. Orcan-Ekmekci, Optimal Regularity Results for Parabolic Integro-Differential Equation with Obstacle, *Preprint*

Electronic versions of my papers are available at <http://math.rice.edu/~bo2/>

**Conference Talks**

December 7, 2013	2013 <i>SIAM PDE</i> , Lake Buena Vista, FL
January 12, 2013	2013 <i>AMS and MAA Joint Mathematics Meetings</i> , San Diego, CA
May 11, 2012	<i>Young Women in PDE</i> , Bonn, Germany
April 30, 2011	<i>AMS Spring Western Section Meeting</i> , Las Vegas, NV
April 10, 2010	<i>33<sup>rd</sup> Annual Texas PDE Conference</i> , Austin, TX
January 15, 2010	2010 <i>AMS and MAA Joint Mathematics Meetings</i> , San Francisco, CA
April 29, 2008	<i>Symposia on Analysis of Geometric Evolution</i> , Austin, TX

**Seminar Talks**

Fall 2012	<i>Geometry-Analysis Seminar- Rice University</i>
Spring 2012	<i>Analysis Seminar-UT-Austin</i>
Fall 2011	<i>PDE Seminar- University of Houston</i>
Fall 2011	<i>Geometry-Analysis Seminar- Rice University</i>
Spring 2011	<i>PDE Seminar- University of California-Berkeley</i>
Fall 2007	<i>Continuum Mechanics Seminar Austin, TX</i>

**Professional Activities**

Dec 2013	<i>Co-organizer of a mini-lecture series at SIAM PDE 2013</i>
Nov 2012	<i>Panelist in careers in the Mathematical Sciences at Rice AWM event</i>
Fall 2012	<i>Co-organizer of Minimal Surfaces Seminar</i>
Fall 2012	<i>Co-organizer of Current Mathematics Seminar</i>
Fall 2011-Spring 2012	<i>Co-organizer of Graduate Teaching Seminar</i>
Spring 2012	<i>Co-organizer of Stochastic Differential Equations Seminar</i>
Fall 2011	<i>Co-organizer of Multi-valued Functions Seminar</i>

**Teaching Experience**

**Rice University-Instructor**

**Graduate Level Courses:**

Spring 2014	<i>Math 517- Complex Analysis</i>
Fall 2013	<i>Math 515- Integration Theory</i>
Fall 2012	<i>Math 423- Partial Differential Equations</i>

**Upper Level Courses:**

Spring 2012	<i>Math 382 - Complex Analysis</i>
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**Lower Level Courses:**

Spring 2013, Fall 2013	<i>Math 211-Ordinary Differential equations</i>
Fall 2012, Fall 2011	<i>Math 111- Fundamental Theorem of Calculus</i>
Spring 2012	<i>Math 102 - Single Variable Calculus II</i>

**UT-Austin-Assistant Instructor**

Fall 2008	<i>Math 305- Elementary Functions and Coordinate Geometry</i>
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**UT-Austin-Teaching Assistant**

**Graduate Level Courses:**

- Methods of Applied Mathematics
- Stochastic Processes and Applications
- Real Analysis(2 semesters)

**Upper Level Courses:**

Applied Linear Algebra	Scientific Computation in Numerical Analysis
Advanced Calculus for Applications	Methods of Applied Mathematics

**Lower Level Courses:** Differential and Integral Calculus

**Bogazici University-Teaching Assistant**

2003-2005	Ordinary Differential Equations, Real Analysis I, and Real Analysis II
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