

Shilpa Khatri

CONTACT INFORMATION Courant Institute of Mathematical Sciences (212) 998 3302
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New York University http://www.cims.nyu.edu/~khatri
251 Mercer Street
New York, New York 10012 USA

EDUCATION **Courant Institute of Mathematical Sciences, New York University (NYU)**
Ph.D. Candidate, Mathematics (expected May 2009)

- Dissertation Topic: A Numerical Method for Soluble Surfactants on Moving Interfaces
- Advisor: Anna-Karin Tornberg
- National Defense Science and Engineering Graduate Fellow

M.S. in Mathematics, May 2005

University of North Carolina at Chapel Hill (UNC-CH)
B.S. in Mathematics (applied math option), May 2003

- graduated with Highest Honors in Mathematics and Distinction
- Minor in Chemistry

PUBLICATIONS S. Khatri and A.-K. Tornberg, *A Numerical Method for Soluble Surfactants on Moving Interfaces*, Proceedings in Applied Mathematics and Mechanics, Volume 7, Issue 1, Special Issue: Sixth International Congress on Industrial Applied Mathematics (ICIAM07) and GAMM Annual Meeting, Zurich 2007, in press.

S. Khatri, *Surface Stress Induced Entrainment in Stratified Fluids*, Honors thesis, University of North Carolina at Chapel Hill, Dept. of Mathematics. (2003)

CONFERENCE TALKS Frontiers in Applied and Computational Mathematics 2008, New Jersey Institute of Technology, Newark, NJ, USA (May 19 2008)

2008 Spring Eastern American Mathematical Society Meeting, Courant Institute, New York, NY, USA (March 16 2008)

International Congress on Industrial and Applied Mathematics, Zurich, Switzerland, (July 2007)

Offshore Mechanics and Arctic Engineering Conference, Vancouver, Canada, (June 2004)

INVITED SEMINARS Numerical Analysis, KTH, Stockholm, Sweden (August 30, 2007)

Department of Information Technology, Uppsala Universitet, Uppsala, Sweden (August 22, 2007)

Linné Flow Center Seminar, KTH, Stockholm, Sweden (April 12, 2007)

POSTERS Opening Workshop for Program on Random Media, Statistical and Applied Mathematical Sciences Institute (SAMSI), Research Triangle Park, NC, USA (September 24, 2007)

TEACHING EXPERIENCE Fall 2007 Lecturer, Linear Algebra (NYU)
Summer 2002 Grader, Calculus of Functions of Several Variables (UNC-CH)
Fall 2001 Teaching Assistant, Introduction to Scientific Programming (UNC-CH)

HONORS AND AWARDS	2003–2008	Henry MacCracken Fellowship New York University Graduate School of Arts and Sciences
	2003–2006	National Defense Science and Engineering Graduate Fellowship Department of Defense
	2003	Highest Honors in Mathematics and Distinction University of North Carolina at Chapel Hill
	2003	The Archibald Henderson Prize in Mathematics Chancellor’s Award, University of North Carolina at Chapel Hill
	2000-2003	North Carolina Fellows Program University of North Carolina at Chapel Hill
	1999	North Carolina Merit Scholar John Motley Morehead Foundation
EXTENDED PROFESSIONAL TRAVEL	AY 2006–07 Feb. 2008 Summer 2008	Royal Institute of Technology (KTH), Stockholm, Sweden
SERVICE/ACTIVITIES	Spring 2008 Sprints 2005,2008 Spring 2006 2003-2006 Summer 2005 2002-2003 1999-2000	cSplash teacher Calculus tutor cSplash organizer Graduate Student/Postdoc Seminar organizer (NYU) Canada/USA Mathcamp mentor Shodor Education Foundation Intern Math Help Center Tutor (UNC-CH)
GRADUATE COURSEWORK	<input type="checkbox"/> Linear Algebra I <input type="checkbox"/> Real Variables I <input type="checkbox"/> Complex Variables <input type="checkbox"/> Fluid Dynamics I <input type="checkbox"/> Real Variables II <input type="checkbox"/> Partial Differential Equations I <input type="checkbox"/> Fluid Dynamics II <input type="checkbox"/> Numerical Methods I <input type="checkbox"/> Applied Mathematics I <input type="checkbox"/> Geophysical Fluid Dynamics <input type="checkbox"/> Numerical Methods II <input type="checkbox"/> Ordinary Differential Equations I <input type="checkbox"/> Immersed Boundary Method	<input type="checkbox"/> Computational Interface Dynamics <input type="checkbox"/> Special Topics in Mathematics: Biology <input type="checkbox"/> Probability: Limit Theorems I <input type="checkbox"/> Integral Equations, Fast Algorithms, and Potential Theory <input type="checkbox"/> Finite Element Methods <input type="checkbox"/> Mechanics I <input type="checkbox"/> Conservation Laws <input type="checkbox"/> Summer School on Multiscale Modeling and Simulation in Science <input type="checkbox"/> PDC Summer School: Introduction to High-Performance Computing <input type="checkbox"/> Waves and PDE for the Tropics
SCIENTIFIC RESEARCH EXPERIENCES	Summer 2004 Summers 2000,2001,2003 2001–2003 2000-2001	Swimming of a Sheet. Advisor: S. Childress, Courant Institute, New York University. The Role of Network Topology on the Initial Growth Rate of Influenza Epidemics. Advisor: J. Hyman, Theoretical-7 Division Los Alamos National Laboratory. Surface Stress Induced Entrainment in Stratified Fluids. Advisor: R. Camassa, Dept. of Mathematics, University of North Carolina at Chapel Hill. Assisted in finding Geographics Information Systems Data and converting to different forms using ArcInfo Prof. data was for: J. Snoeyink, Dept. of Computer Science, University of North Carolina at Chapel Hill.
REFERENCES	Anna-Karin Tornberg , Royal Institute of Technology (KTH), Stockholm, Sweden Courant Institute of Mathematical Sciences, New York University, tornberg@cims.nyu.edu	