

# Meng Xu

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## CONTACT INFORMATION

Laboratory of Populations  
Rockefeller University  
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## POSITION

### Postdoctoral Associate

Laboratory of Populations, Rockefeller University 08/2011-present

## RESEARCH INTERESTS

Stochastic Processes and Mathematical Biology

## EDUCATION

### Department of Mathematics, University of Wyoming

Ph.D. in Mathematics, 2011

- Dissertation Topic: Stochastic analysis and nonlinear filtering of point vortex dynamics subjected to jump noise
- Advisor: Sivaguru S. Sritharan

### College of Mathematics Science, Shandong Normal University

B.S. in Mathematics, 2006

## PUBLICATIONS

S.S. Sritharan and M. Xu, *A stochastic Lagrangian particle model and nonlinear filtering for three dimensional Euler flow with jumps*, Communications on Stochastic Analysis, **5**(3) (2011), 565-583.

S.S. Sritharan and M. Xu, *Convergence of particle filtering method for nonlinear estimation of vortex dynamics*, Communications on Stochastic Analysis, **4**(3) (2010), 443-465.

B.P.W. Fernando, S.S. Sritharan and M. Xu, *A simple proof of global solvability of 2-d Navier-Stokes equations in unbounded domains*, Differential and Integral Equations, **23**(3-4) (2010), 223-235.

S.S. Sritharan and M. Xu, *Malliavin calculus and stochastic Lagrangian equation for two dimensional Navier-Stokes flows*, Preprint (2010).

## CONFERENCE TALKS

SIAM Conference on Control and Its Applications: Advances in Control of Fluid Dynamics and Challenges Facing the US Defense Department's thrust on Unmanned Autonomous Systems. Baltimore, Maryland. 07/27, 2011.

Joint Mathematics Meetings: AMS Special Session on Stochastic Analysis and Random Phenomena. New Orleans, Louisiana. 01/07, 2011.

From Markov Processes to Brownian Motion and Beyond: An International Conference in Memory of Kai Lai Chung. Peking University, Beijing, China. 06/14, 2010. (Poster)

4th Annual Graduate Student Probability Conference. Duke University. 05/01, 2010.

Arizona School of Analysis with Applications. University of Arizona. 03/15, 2010.

Rocky Mountain Mathematics Consortium: Flow in Porous Media with Emphasis on Modeling Oil Reservoirs. University of Wyoming. 06/24, 2007.

TEACHING  
EXPERIENCE

**Lecturer, University of Wyoming**

College Algebra: Spring 2007, Fall 2007, Spring 2008  
Algebra and Trigonometry: Fall 2008, Fall 2009  
Calculus-I: Spring 2011

HONORS AND  
AWARDS

2008 Outstanding Graduate Student in Research Award, Department of  
Mathematics, University of Wyoming  
2007 Best Oral Presentation Award, 5th Graduate Student Symposium,  
University of Wyoming  
2006 Outstanding Graduation Thesis Award, College of Mathematics  
Science, Shandong Normal University

ACADEMIC VISITS

Fall 2010 Visiting Ph.D. student at University of Wuppertal, Germany  
Spring 2009 Visiting Ph.D. student at Naval Postgraduate School, CA