

# Mathew Joseph

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## Personal Details

Citizenship: India

## Employment

- **Scott Assistant Professor Lecturer (Postdoc.)** July 1 2009 - June 30, 2012  
University of Utah
- **Graduate Teaching Assistant** August 20, 2004 - July 31, 2009  
University of Wisconsin, Madison

## Education

- **Ph.D. in Mathematics:** August 2004-August 2009  
University of Wisconsin, Madison  
Advisor - Timo Seppalainen
- **Master in Statistics:** 2002 - 2004  
Indian Statistical Institute  
Graduated in the First Division
- **Bachelor of Statistics:** 1999 - 2002  
Indian Statistical Institute  
Graduated in the First Division with Distinction

## Publications and Preprints

- Mathew Joseph. *Fluctuations of the quenched mean of a planar random walk in an i.i.d. random environment with forbidden direction*, Electronic Jour. of Prob., Volume 14 (2009) Paper No. 44, pages 1268-1289
- Mathew Joseph and Firas Rassoul-Agha. *Almost sure invariance principle for continuous-space random walk in dynamic random environment* ALEA Volume 8(2011) pages 43-57.
- Daniel Conus, Mathew Joseph and Davar Khoshnevisan. *On the chaotic character of the stochastic heat equation, before the onset of intermittency*. Accepted in the Annals of Probability.

- Daniel Conus, Mathew Joseph, Davar Khoshnevisan and Shang-Yuan Shiu. *On the chaotic character of the stochastic heat equation-II*. Accepted in Probability Theory and Related Fields, modulo revision.
- Daniel Conus, Mathew Joseph, Davar Khoshnevisan and Shang-Yuan Shiu. *Initial measures for the stochastic heat equation*. Submitted.
- Daniel Conus, Mathew Joseph and Davar Khoshnevisan. *Correlation length bounds, and estimates for parabolic SPDEs*. Submitted.
- Daniel Conus, Mathew Joseph, Davar Khoshnevisan and Shang-Yuan Shiu. *Intermittency and chaos for a stochastic non-linear wave equation in dimension 1*. Submitted.
- Mathew Joseph, Firas Rassoul-Agha and Timo Seppäläinen. *Independent particles in a dynamical random environment*. In preparation
- Mathew Joseph, Davar Khoshnevisan, Carl Mueller. *A strong dissipation theorem for some randomly-forced parabolic heat equations*. In preparation

### Research Interests

- Stochastic Partial Differential Equations, Random Walks in Random Environment (RWRE), Interacting Particle Systems.

### Talks

- *Fluctuations of the quenched mean in a space time random environment*  
August 7, 2007; 32nd SPA; University of Illinois, Urbana-Champaign.
- *Fluctuations of the quenched mean in a space time random environment* (Speciality Exam) August 24, 2007 ; University of Wisconsin-Madison.
- *Invariant measures for independent particles in a dynamical random environment*  
December 11, 2008; University of Wisconsin-Madison.
- *Independent particles in a dynamical random environment*  
January 30, 2009; Stochastics Seminar, University of Utah.
- *Independent particles in a dynamical random environment*  
March 16, 2009; Frontier Probability days, University of Utah.
- *Almost sure invariance principle for  $\mathbf{R}^d$ -valued random walk in dynamic random environment*  
April 23, 2010; Stochastic Seminar, University of Utah.
- *The chaotic character of the stochastic heat equation*  
March 4, 2011; Stochastic Seminar, University of Utah.
- *The chaotic character of the stochastic heat equation*  
March 11, 2011; Frontier Probability days, University of Utah.
- *The chaotic character of the stochastic heat equation*  
March 25, 2011; Seminar on Stochastic Processes, University of California, Irvine.

- *The chaotic character of the stochastic heat equation*  
April 22, 2011; International Indian Statistical Association Annual Conference, North Carolina State University
- *Talks in the Student Probability Seminar: The increasing subsequence problem and the longest common subsequence problem, Convergence of Probability Measures*; UW-Madison.

### Conferences and Seminars

- Twenty Sixth Midwest Probability Colloquium  
October 2004; Northwestern University.
- Twenty Seventh Midwest Probability Colloquium  
October 2005; Northwestern University.
- Markov Processes and Related Topics  
July 2006; University of Wisconsin Madison.
- AMS Sectional Meeting - Special Session on Random Media  
October 2006; University of Utah.
- Twenty Eighth Midwest Probability Colloquium  
October 2006; Northwestern University.
- Third Cornell Summer School in Probability  
June 18-29, 2007.
- IAS/PCMI Graduate Summer School  
July 1-21, 2007 ; Park City,Utah.
- 32nd Conference on Stochastic Processes and their applications  
August 6-10, 2007; University of Illinois, Urbana Champaign.
- Twenty Ninth Midwest Probability Colloquium  
October 19-20, 2007; Northwestern University.
- Thirtieth Midwest Probability Colloquium  
October 23-25, 2008; Northwestern University.
- Workshop on SPDE's  
June 28-July 2, 2010; Isaac Newton Institute.
- ICM Satellite Conference in Probability  
August 13-August 17, 2010; ISI Bangalore.
- International Congress of Mathematicians, 2010; Hyderabad
- Frontier Probability Days  
March 10-12, 2011; University of Utah.
- Seminar on Stochastic Process  
March 24-26, 2011; University of California, Irvine.
- International Indian Statistical Association Annual Conference  
April 22-24, 2011; North Carolina State University.

- Seventh Seminar on Stochastic Analysis, Random Fields and Applications  
May 22-27, 2011; Ascona, Switzerland.
- Workshop on "The Kardar-Parisi-Zhang equation and universality class"  
October 24-28, 2011; American Institute of Mathematics, Palo Alto, California.
- Workshop on Stochastic Analysis and Stochastic Partial Differential Equations  
April 1 - April 6, 2012; Banff, Canada

### Teaching Experience

I have been a teaching assistant for the following courses at UW Madison

- Fall 2004 - Math 222 (Calculus II)
- Spring 2005 - Math 222 (Calculus II)
- Fall 2005 - Math 171 (Calculus and Trigonometry)
- Spring 2006 - Math 221 (Calculus I)
- Fall 2006 - Math 114 (Algebra and Trigonometry)
- Spring 2007 - Math 320 (Differential Equations and Linear Algebra)
- Fall 2007 - Math 375 (Calculus III for Honors students)
- Spring 2008 - Math 276 (Calculus I for Honors students)
- Fall 2008 - Math 171 (Calculus and Trigonometry)
- Spring 2009 - Math 234 (Calculus III)

I have been the instructor for the following courses at the University of Utah

- Fall 2009 - Math 1070 (Introductory Statistics)
- Spring 2010 - Math 1070 (Introductory Statistics)
- Fall 2010 - Math 5040 (Stochastic Processes and Simulation I)
- Spring 2011 - Math 5050 (Stochastic Processes and Simulation II)
- Fall 2011 - Math 5090 (Statistical Inference II)
- Spring 2012 - Math 5080 (Statistical Inference I)

### Other Professional Activities

- Refereed papers in Electronic Journal of Probability, Journal of Theoretical Probability, Stochastic Processes and Applications.
- Co-organiser, Sidewalk Math: (Free math help to students during exam week) , Spring 2006
- Co-organiser, First Graduate Student Probability Conference:  
University of Wisconsin, Madison, April 13-15, 2007 .
- Co-organiser, Second Graduate Student Probability Conference:  
University of Wisconsin, Madison, May 2-4, 2008.

## References

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Prof. Henryk Hecht (Teaching)  
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