

Soumik Pal

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EMPLOYMENT

University of Washington, Seattle

Tenure-track Assistant Professor of Mathematics.

*From July 2008.*¹

Cornell University, Ithaca

Visiting Assistant Professor
in the departments of Mathematics and ORIE.

July 2006 – June 2008.

EDUCATION

Columbia University, New York

Ph.D. supervised by Prof. Ioannis Karatzas
in the Department of Statistics.

May 2006

Indian Statistical Institute, Calcutta, India

- Master of Statistics
- Bachelor of Statistics

May 2002

May 2000

COMPLETED RESEARCH PAPERS

A summary of the following works is described in my research statement.

- (1) PAL, SOUMIK (2007). Computing strategies for achieving acceptability; a Monte-Carlo approach. *Stochastic Processes and their Applications* **117** 1587–1605.
- (2) PAL, SOUMIK & PITMAN, JIM (2008). One dimensional Brownian particle systems with rank dependent drifts. To appear in *The Annals of Applied Probability*. Downloadable at <http://arxiv.org/abs/0704.0957>.
- (3) PAL, SOUMIK (2008). Symmetrization of Bernoulli. *Electronic Communications in Probability* **13** 194–197.
- (4) CHATTERJEE, SOURAV & PAL, SOUMIK (2007). A phase transition behavior for Brownian motions interacting through their ranks. Submitted. Downloadable at <http://arxiv.org/abs/0706.3558>.
- (5) PAL, SOUMIK & PROTTER, PHILIP (2007). Strict local martingales and no early exercise. Submitted.

ONGOING PROJECTS

- An excursion approach towards analyzing time-inhomogenous linear diffusions.
- Gaussian free fields and random walks on random graphs
 - *with Sourav Chatterjee.*

¹This CV was last updated on Mar 13, 2008.

- Interacting Brownian motions and convex polytopes – *with Sourav Chatterjee.*

RESEARCH INTERESTS

I am interested in both applied and theoretical probability. Usually I am problem driven and can work on a variety of areas if the problems are interesting and significant. So far my research has drawn problems from mathematical finance, queueing theory, and statistical physics. I am also interested in theoretical statistics and machine learning.

SHORT ACADEMIC VISITS

University of Paris VI, Paris

Visiting Postdoctoral Researcher at the
Laboratoire de Probabilité et Modèle Aléatoire.

June 2006

INVITED TALKS

2008 UC Davis, UC San Diego, Cornell Univ.

2007 UW Madison, UC Berkeley, UCLA, Courant Institute, UC Irvine, Purdue Univ., UW Seattle, Cornell University, Rutgers Univ., Cornell University *3rd. Summer School in Probability*, CMU.

2006 Indian Statistical Inst., Univ. of Rochester, Cornell University, Univ. of Paris VI, Univ. of Conn., *Stoors Internat. Workshop on Appl. Prob., IWAP*, City Univ. of New York, CMU-Columbia-Cornell-Princeton *Conference on Math. Fin.*

2005 EURANDOM, The Netherlands *Workshop on Risk Measures*, Princeton University *Columbia-Princeton Probability Day*, Columbia University.

TEACHING EXPERIENCE

I enjoyed being the instructor for the following courses:

Introduction to Probability (Math 471)

Fall 2007, Cornell.

Topics course on stochastic processes (Math 778)

Spring 2007, Cornell.

- A graduate course on continuous stochastic processes. Topics included:

 Stroock-Varadhan martingale problem approach,
 Feynman-Kac formula and applications,
 conformal invariance and the Schramm-Loewner-Evolutions.

See <http://www.math.cornell.edu/~soumik/778.html> for the details.

Introduction to Statistics (S1111)

Summer 2005, Columbia.

During my graduate student days I had also been a teaching assistant for a variety of introductory courses in Probability, Statistics, and stochastic methods in Finance.

CONSULTING EXPERIENCE

Worked as a consultant on behalf of the Statistics department at Columbia University in Fall 2003. One of the projects involved working on a sampling design problem with the **Street Vendor Project** (<http://streetvendor.netfirms.com>). The objective was to do a survey among the street vendors (registered and unregistered) in Manhattan.

OTHER PROFESSIONAL EXPERIENCES

I have served as a referee for the following journals.

Electronic Communications in Probability
Stochastic Processes and their Applications
Finance & Stochastics
Mathematical Finance
Journal of Statistical Planning and Inference

HONORS AND AWARDS

<i>IMS travel award</i>	IWAP 2006
<i>Faculty Fellowship, Columbia University</i>	Aug 2002- May 2006
<i>JB National Science Talent Search Senior Scholarship</i>	1997-2002
– A prestigious national scholarship offered each year to six students to complete their undergraduate and masters study in India.	

PERSONAL DETAILS

Date of birth 10 December 1978
Nationality Indian

FOREIGN LANGUAGE SKILLS

English - Fluency in speaking, reading and writing.
 French - Recipient of *Certificat de Français Élémentaire* from Alliance Française in 2000. I can read and write French articles and understand conversations.

PROGRAMMING SKILLS

Proficient in statistical programming languages like *SPlus* and *R*.
 Familiar with programming in *C* and *FORTTRAN*.

REFERENCES

Dr. Ioannis Karatzas (PH. D. THESIS ADVISOR)

Eugene Higgins Professor
 Department of Mathematics and Statistics
 Columbia University
 212-854-3177
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Dr. Richard Durrett

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 Mathematics
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