

## Antar Bandyopadhyay

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### Education

- **Doctorate** : Ph.D. in Statistics from the **University of California, Berkeley** : May 2003  
**Dissertation Title** : Max-type Recursive Distributional Equations.  
**Advisor** : Professor David J. Aldous.
- **Master of Arts** : M.A. in Statistics from the **University of California, Berkeley** : May 2000.
- **Master of Statistics** : M.Stat. from the **Indian Statistical Institute, Calcutta** : May 1998.  
Specialization : Mathematical Statistics and Probability.
- **Bachelor of Statistics** : B.Stat. with Honors from the **Indian Statistical Institute, Calcutta**:  
May 1996.

### Employment

- **Postdoctoral Fellow** : Working as a postdoctoral member at the Institute for Mathematics and Its Applications, University of Minnesota, Minneapolis : September 2003 - present.
- **Visiting Scientist** : Worked as a visiting research scientist at the Indian Statistical Institute, Calcutta, India : June 2003 - August 2003.

### Research Interests

Mathematical probability, in particular random graphs; probability on trees. Combinatorial optimization and mean-field statistical physics problems; recursive distributional equations, and recursive tree processes; branching random walks. Markov chains and their mixing behavior.

### Publications and Preprints

- A Survey of Max-type Recursive Distributional Equations. (*submitted*)  
*available at* <<http://www.arXiv.org/pdf/math.PR/0401388>>, 2004. [with David J. Aldous].
- Bivariate Uniqueness in the Logistic Recursive Distributional Equation. *Technical Report, Department of Statistics, UC, Berkeley*, 629, November 2002.
- How to Combine Fast heuristic Markov Chain Monte Carlo with Slow Exact Sampling. *Electron. Comm. Probab.*, 6 : 79 - 89, 2001. [with David J. Aldous].

## Presentations

- “Frozen Percolation Process : What are Known and what are not known.” *Brown Bag Seminar*, Institute for Mathematics and Its Applications, University of Minnesota, Minneapolis, November 2003.
- “Max-type Recursive Distributional Equations and Associated Recursive Tree Processes.” *Probability Colloquium*, Department of Mathematics, University of Minnesota, Minneapolis, November 2003.
- “Recursive Distributional Equations and Associated Recursive Tree Processes.” *Postdoc Presentations*, Institute for Mathematics and Its Applications, University of Minnesota, Minneapolis, September 2003.
- “Recursive Distributional Equations and Associated Recursive Tree Processes.” *Probability Seminar*, Department of Statistics, University of California, Berkeley, October 2002.
- “Measurability of the Recursive Tree Process for the Mean-field Random Assignment Problem.” Invited speaker, *Fourth International Conference on Probability and its Applications*, Banff, Canada, August 2002.
- “Logistic Recursive Distributional Equation.” *Probability Colloquium*, Indian Statistical Institute, Calcutta, January 2002.
- “A Survey of Linear and Max-type Fixed-point Equations in Probability.” *Probability Colloquium*, Indian Statistical Institute, Calcutta, January 2001.
- “How to Combine Fast Heuristic Markov Chain Monte Carlo with Slow Exact Sampling.” Invited speaker, *International Conference on Probability and Mathematical Statistics in honor of Professor C. R. Rao on his 80<sup>th</sup> birthday*, Indian Statistical Institute, Calcutta, India, December 2000.
- “The Relationships among the Parameters of a Bose-Mesner Algebra.” Invited speaker, *Mahalanobis Symposium on Probability and Statistics*, Indian Statistical Institute, Calcutta, India, July 1998.

## Honors and Awards

- The *Loeve Fellowship* for graduate students in probability from the Department of Statistics, University of California, Berkeley : 2002 – 2003.
- The *Laha Award* from the Institute of Mathematical Statistics, USA : July 2002.
- The *Teaching Effectiveness Award* from the GSI Center, Graduate Division, University of California, Berkeley : May 2002.
- The *Outstanding Graduate Student Instructor Award* from the GSI Center, Graduate Division, University of California, Berkeley : May 2002.
- The *Alumni Association Gold Medal* from the Indian Statistical Institute, Calcutta for outstanding performance in Master of Statistics curriculum : May 1998.
- *M. R. Iyer Memorial Prize* from the Indian Statistical Institute, Calcutta : May 1998.
- *NBHM Scholarship* from the National Board of Higher Mathematics, India, for outstanding performance in the Indian National Mathematics Olympiad and subsequent training in Algebra and Analysis: 1993 - 1998.
- *Indian National Mathematical Olympiad Award* from the National Board of Higher Mathematics, India: 1992 - 1993.
- *National Merit Scholar* of India : 1991, 1993.

## Professional Experience

- **Research Assistant** : Graduate student researcher from NSF funding under the guidance of Professor David J. Aldous (dissertation advisor), Professor Jim Pitman, and Professor John Rice of the Department of Statistics, University of California, Berkeley : *various semesters* during August 1998 - present.
- **Teaching Assistant** : Graduate student instructor for the following courses at UC, Berkeley :
  - Stat-205A (Graduate Course on Measure Theoretic Probability) : Fall 2001, Fall 2000.
  - Stat-101, 134 (Upper Division Courses on Concepts of Probability) : Spring 2000, Spring 1999.
  - Stat-20 (Lower Division Introductory Course on Probability and Statistics) : Fall 1999.
- **Instructor with Full Responsibility** : Stat-134 (Upper Division Course on Concepts of Probability): Fall 2002.
- **Seminar Organization** :
  - Co-organizer for the Postdoctoral Colloquium at the Institute for Mathematics and Its Applications for the year 2003 - 2004.
  - Co-organized the Graduate Student Seminar Series during Fall 2001, and the Student-Faculty Research Seminar during Fall 2002 both at the Department of Statistics, UC, Berkeley.

## Membership in Academic Organizations

- American Mathematical Society : 2000 - present.
- Institute of Mathematical Statistics, USA : 2000 - present.
- Mathematical Association of America : 2003 - present.

## Personal Data

- **Date / Place of Birth** : September 9, 1974 / Calcutta, India.
- **Citizen of** : India.