

Biographical Sketch

Bulbul Chakraborty

Mailing Address: Physics Department MS 057 **Date of Birth:** January 21, 1954
Brandeis University **Place of Birth:** India
Waltham, MA 02454-9110 **Citizenship:** United States
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Professional Preparation

State University of New York, Stony Brook Physics Ph.D., 1979
State University of New York, Stony Brook Physics M.S., 1975
Indian Institute of Technology, Kharagpur, India, Physics B.Sc., 1974

Appointments

Sept 2000– Professor, Brandeis University,
Sept 1994–Sept 2000 Associate Professor, Brandeis University
Sept 1989–Sept 1994 Assistant Professor, Brandeis University
Sept 1987–Aug 1989 Associate Research Physicist and Lecturer,
Applied Physics, Yale University
April 1986–July 1987 Visiting Assistant Professor, NORDITA, Denmark
March 1984–March 1986 Scientific Officer (equivalent of Assistant Professor)
Materials Science Laboratory, Indira Gandhi
Center for Atomic Research
July 1983–March 1984 Research Associate, Indian Institute of Science
Jan 1983–June 1983 Visiting Scientist, NORDITA, Denmark
Feb 1979–Dec 1982 Postdoctoral Fellow, Materials Science Division,
Argonne National Laboratory

Selected Publications

- “Jamming as a critical phenomenon: a field theory of zero-temperature grain packings”
S. Henkes and B. Chakraborty, submitted to Phys. Rev. Lett. (condmat/0504371)
- “Stress and large-scale spatial structures in dense, driven granular flows”, A. Ferguson
and B. Chakraborty, submitted to Phys. Rev. E (cond-mat/0505496)
- “Critical Dynamics of Dimers: Implications for the Glass Transition”, D. Das, G.
Farrell, J. Kondev and B. Chakraborty, to appear in J. Phys. Chem (special issue in
honor of Irwin Oppenheim)(cond-mat/0506578).

- “Landau Theory of the glass transition”, S. N. Majumdar, D. Das, J. Kondev and B. Chakraborty, Phys. Rev. **E 70**, 060501(R) (2004)
- “Impulse Distributions in dense granular flows: signatures of large-scale spatial structures”, Allison Ferguson, Ben Fisher and Bulbul Chakraborty, Europhys Lett. **66**, 277 (2004).
- “Activated Dynamics at a non-disordered critical point”, Dibyendu Das, Jané Kondev and Bulbul Chakraborty, Europhys Lett. **61**, 506 (2003).
- “Slow dynamics and aging in a non-randomly frustrated spin system”, Hui Yin and Bulbul Chakraborty, Phys. Rev. **E 65**, 036119 (2002).
- “Clustering in a model with aggregation and mass-dependent diffusion”, R. Rajesh, Dibyendu Das, Bulbul Chakraborty, and M. Barma, Phys. Rev. **E 66**, 056104 (2002).
- “Entropy-vanishing Transition and Dynamical Heterogeneities in the Compressible Triangular Lattice Antiferromagnet”, Hui Yin, Bulbul Chakraborty, Phys. Rev. Lett. **86**, 2058 (2001).
- “Kinetics of Ordering in Fluctuation-Driven First-Order Transitions: Simulations and Dynamical Renormalization”, Nicholas Angelo Gross, Mike Ignatiev, Bulbul Chakraborty, Phys. Rev. **E 62**, 6116 (2000).

Synergistic Activities

- Panelist in Brandeis University sponsored symposium on “Women, Gender, & Science”
- Collaborations with faculty members from women’s colleges and involvement in mentoring undergraduate students from these institutions
- Member of Boulder Summer School board
- Organizer of the annual Greater Boston Area Statistical Mechanics meeting

Graduate and Postdoctoral Advisors

Philip B. Allen (Thesis Advisor), SUNY, Stony Brook, New York
 R. W. Siegel (Postdoctoral Advisor), RPI, Troy, New York

Thesis Advisor and Postgraduate-Scholar Sponsor

Zhigang Xi (PhD, 1994), Lei Gu (PhD, 1999), M. Ignatiev (PhD, 1999), David Olmsted (PhD, 1999, Sandia National Lab.), Hui Yin (PhD, 2000), Nicholas Gross (Northeastern Univ.), S. K. Ghoshal (Chandigarh Univ., India), Dibyendu Das (Indian Institute of Technology, Bombay), Rajesh Ravindran (Mathematical Sciences Institute, Chennai, India)

Collaborators

Michael Cates, Claudio Chamon, Dibyendu Das, Jané Kondev, S. N. Majumdar. Sidney Nagel, Rajesh Ravindran, David Reichman, Leo Silbert, Shubha Tiwari.