



BARASAT GOVERNMENT COLLEGE

TEACHER'S PROFILE

DR SUDIP MUKHERJEE, DEPARTMENT OF PHYSICS

- **DESIGNATION** : Assistant Professor (Stage1)
- **QUALIFICATION** : M.Sc., Ph.D.
- **DATE OF JOINING THE SERVICE** : Jul 1, 2015
- **DATE OF JOINING THE INSTITUTION** : Jul 1, 2015
- **ADDRESS FOR COMMUNICATION** : 10, K.N.C Road Barasat, Kolkata, West Bengal 700124
- **PHONE NO** : personal
- **EMAIL ADDRESS** : sudip.bat@gmail.com
- **SPECIALIZATION** : Statistical mechanics
- **TEACHING EXPERIENCE** : I have six years of teaching experience. During these years I have been teaching both UG and PG curriculum.
- **COLLEGE SERVED** : Barasat Govt. College till 1st July, 2015.

ACADEMIC AND ADMINISTRATIVE EXPERIENCE	: I performed several paper setting and moderation duties associated with the Uniceesity and PG examinations. I have been working in admission and system management committees. I have been also working as a departmental PG coordinator.
TOPICS TAUGHT	: Theoretical topics: Statistical mechanics, kinetic theory of gases, complex variable, linear vector space and matrices. Experimental topic: Basic python computing and numerical programming.
AREA OF RESEARCH & INTEREST	: My research area is Statistical perspectives on disordered and driven systems.
ONGOING PROJECT DETAILS	: Name of the project: Broken symmetry phases in correlated backgrounds: Scaling and universality. Funding agency: SERB, Department of Science and Technology, Government of India.
AWARD RECEIVED	: NONE
PATENT DETAILS	: NONE
EXTRACURRICULAR ACTIVITIES	: Essay and poetry writing.
CAREER PROFILE	: I completed my B.Sc course (Physics Hons.) from Seth Anandram Jaipuria College, University of Calcutta in 2009. Then I completed my M.Sc. (in Physics) from Presidency college, University of Calcutta in 2011. I secured CSIR rank 83 in NET in 2012. Then I joined Saha Institute of Nuclear Physics as JRF in 2012. I got my Ph.d. degree form University of Calcutta in 2020. I reviewed papers from of Scientific reports and SciPost journals.
ACADEMIC LINK	: https://scholar.google.com/citations?hl=en&user=jT-wTUKAAAAJ

PUBLICATION

JOURNAL PUBLICATION :

- (1) Sudip Mukherjee, Bikas K Chakrabarti, 'Multivariable Optimization: Quantum Annealing & Computation', Eur. Phys. J. Special Topics, Springer Verlag, Germany, February, 2015, 19516401
- (2) Sudip Mukherjee, Atanu Rajak, Bikas K Chakrabarti, 'Classical-quantum crossover in the critical behavior of the transverse field S-K spin glass model', Physical Review E, 1 Physics Ellipse College Park, Maryland, USA, October, 2015, 2470-0045
- (3) Sudip Mukherjee, Arnab Chatterjee, 'Disorder induced phase transition in an opinion dynamics model: results in 2 and 3 dimensions', Physical Review E, 1 Physics Ellipse College Park, Maryland, USA, December, 2016, 2470-0045
- (4) Sudip Mukherjee, Atanu Rajak, Bikas K. Chakrabarti, 'Possible ergodic-nonergodic regions in the quantum Sherrington-Kirkpatrick spin glass model and quantum annealing', Physical Review E, 1 Physics Ellipse College Park, Maryland, USA, February, 2018, 2470-0045
- (5) Sudip Mukherjee, Sabyasachi Nag, Arti Garg, 'Many body localization-delocalization transition in quantum Sherrington-Kirkpatrick model', Physical Review B, 1 Physics Ellipse College Park, Maryland, USA, April, 2018, 2469- 9950
- (6) Mily Kundu, Sudip Mukherjee, Soumyajyoti Biswas, 'Record breaking statistics near second order phase transitions', Physical Review E, 1 Physics Ellipse College Park, Maryland, USA, August, 2018, 2470-0045
- (7) Sudip Mukherjee, Soumyajyoti Biswas, Parongama Sen, 'Long route to consensus: Two stage coarsening in a binary choice voting model', Physical Review E, 1 Physics Ellipse College Park, Maryland, USA, July, 2020, 2470-0045
- (8) Sudip Mukherjee, Abhik Basu, 'Dynamic scaling in the quenched disordered classical N -vector model', Physical Review Research, 1 Physics Ellipse College Park, Maryland, USA, September, 2020, 2643-1564
- (9) Sudip Mukherjee, Abhik Basu, 'Scaling or multiscaling: Varieties of universality in a driven nonlinear model', Physical Review E, 1 Physics Ellipse College Park, Maryland, USA, March, 2021, 2470-0045
- (10) Sudip Mukherjee, 'Conserved Kardar-Parisi-Zhang equation: Role of quenched disorder in determining universality', Physical Review E, 1 Physics Ellipse College Park, Maryland, USA, April, 2021, 2470-0045

➤ BOOK PUBLICATION :

- (1) Bikas K. Chakrabarti, Arnab Chatterjee, Asim Ghosh, Sudip Mukherjee, Boaz Tamir, 'Econophysics of the Kolkata Restaurant Problem and Related Games: Classical and Quantum Strategies for Multi-agent, Multi-choice Repetitive Games', Springer, Gewerbestrasse 11, 6330, Cham, Switzerland, March, 2017, 2039-411X
- (2) Sudip Mukherjee, 'A Brief Historical Note on the Studies of Quantum Spin Glasses, Annealing and Com- putation Book Chapter in Quantum Spin Glasses, Annealing and Computation', , Cambridge University Press, Delhi, India, January, 2017, 978-1-107-11319-0