

Pradip Mukherje Professor and Head, Department of Physics

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Education:

B.Sc. (Physics) from Calcutta University, 1982., M. Sc. (Physics) from Calcutta University, 1984.

Post M. Sc. Associate of Saha Institute of Nuclear Physics, 1986, Ph. D. from Jadavpur University, 2000.

Teaching experience

27 Years Under Graduate teaching, 15 Years Post Graduate teaching

Favourite courses:

Kinetic theory of gas, Classical Mechanics (Lagrangian and Hamiltonian formulations)- UG.

Classical Electrodynamics, Quantum Field Theory – PG.

Research interests : Extended (Soliton) solutions of Chern – Simons field theories, Dirac's approach

to the Hamiltonian formulations of generally covariant theories, Non commutative field theory and

Gravity, Higher derivative theories, Classical Gravity, Cosmology and gauge approach to non relativistic diffeomorhism invariance.

Research Supervision: Supervised the research of Dr. Anirban Saha who got his Ph. D from

Calcutta University (2009) and jointly with Prof Rabin Banerjee, guided the research of Dr. Biswajit

Paul who got his Ph. D from Calcutta University (2013).Now supervising the reaearch work of Ms

Arpita Mitra who is registered in C.U., as Joint Supervisor with Prof Rabin Banerjee,

Three important publications:

1 ." General algorithm for nonrelativistic diffeomorphism invariance ", R.Banerjee, A. Mitra, P.Mukherjee.Phys.Rev. D91 (2015) 8, 084021.

2 ." A Note on the noncommutative correction to gravity", P. Mukherjee, A Saha. Phys.Rev. D74 (2006) 027702.

3. "On the question of degeneracy of topological solitons in a gauged O(3) nonlinear sigma model with Chern-Simons term P. Mukherjee", Phys.Lett. B403 (1997) 70.

for a full list go to the link <u>https://scholar.google.co.in/citations?user=2irR0MQAAAAJ&hl=en</u>