

CURRICULUM VITAE

Name Purnendu Chakraborty

Nationality Indian

Present Affiliation

Assistant Professor
Department of Physics, Basirhat College
Basirhat-743412
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Education

- B. Sc. with Physics major from Visvabharati, Santiniketan, West Bengal in 1997.
- M. Sc. in Physics from Visvabharati, Santiniketan, West Bengal in 1999.

Doctoral Research

- PhD in High Energy Physics from Saha Institute of Nuclear Physics and Jadavpur University in 2007.

Ph.D Supervisor Prof. Munshi Golam Mustafa

Research Area

- Statistical Field Theory
- Quark Gluon Plasma Phenomenology

Research Experience

- Visiting Scientist at Variable Energy Cyclotron Centre, Kolkata from May, 2014 - April 2015.
- Research Associate at Variable Energy Cyclotron Centre, Kolkata from March, 2013 to March, 2014.
- Post-doctoral fellow at Physical Research Laboratory, Ahmedabad, India from January 2011 to January, 2013.
- Visiting Scientist at Bose Institute, Kolkata from October 2010 to January, 2011.
- Post-doctoral Fellow at University of Minnesota, USA from May, 2008 to August, 2010.
- Research Associate at Theory Division, Saha Institute of Nuclear Physics from September, 2007 to May, 2008.
- Research Fellow at Theory Division, Saha Institute of Nuclear Physics from September, 2000 to August, 2007.
- Post M.Sc Associate at Saha Institute of Nuclear Physics, Kolkata, India from August, 1999 to August, 2000.

Teaching

- Assistant Professor at Basirhat College, West Bengal from May 2, 2015.

Professional Activities

- Referee for Physical Review C, Physical Review D, Physical Review E and Physics Letters B.

Publications

■ Refereed publications

1. “Meson spectral function and screening masses in magnetized quark gluon plasma”, P. Chakraborty, [Eur. Phys. J. Plus \(2019\) 134: 478](#).
2. “On the departure from equilibrium of quasiparticle distribution function in high energy heavy ion collision”, P. Chakraborty and J. I. Kapusta, [Phys. Rev. C 95, No. 1, 014907 \(2017\)](#).
3. “Quasiquarks in melting gluon condensate,” P. Chakraborty, [JHEP 03 120 \(2013\)](#).
4. “ $D = 2$ gluon condensate and QCD propagators at finite temperature,” P. Chakraborty and M. G. Mustafa, [Phys. Lett. B 711, 390 \(2012\)](#).
5. “Comparison of Viscosities from the Chapman Eknskog and Relaxation Time Method”, A. Wiranata, M. Prakash and P. Chakraborty, [Central Eur. J. Phys, 10 1349 \(2012\)](#).
6. “Screening Masses in Gluonic Plasma,” P. Chakraborty, M. G. Mustafa, and M. H. Thoma, [Phys. Rev. D 85, 056002 \(2012\)](#).
7. “Quasi-Particle Theory of Shear and Bulk Viscosities of Hadronic Matter,” P. Chakraborty and J. I. Kapusta, [Phys. Rev. C 83, 014906 \(2011\)](#).
8. “Wakes in a collisional quark-gluon plasma,” P. Chakraborty, M. G. Mustafa, R. Ray and M. H. Thoma, [J. Phys. G 34 \(2007\) 2141](#).
9. “Energy gain of heavy quarks by fluctuations in the QGP,” P. Chakraborty, M. G. Mustafa and M. H. Thoma, [Phys. Rev. C 75, 064908 \(2007\)](#).
10. “Wakes in the quark-gluon plasma,” P. Chakraborty, M. G. Mustafa and M. H. Thoma, [Phys. Rev. D 74, 094002 \(2006\)](#).
11. “Dynamical screening in a quark gluon plasma,” M. G. Mustafa, P. Chakraborty and M. H. Thoma, [J. Phys. Conf. Ser. , 50, 438 \(2006\)](#).
12. “Screening of a moving parton in the quark gluon plasma,” M. G. Mustafa, M. H. Thoma and P. Chakraborty, [Phys. Rev. C 71, 017901 \(2005\)](#).
13. “Quark number susceptibility, thermodynamic sum rule, and hard thermal loop approximation,” P. Chakraborty, M. G. Mustafa and M. H. Thoma, [Phys. Rev. D 68, 085012 \(2003\)](#).
14. “Chiral susceptibility in hard thermal loop approximation,” P. Chakraborty, M. G. Mustafa and M. H. Thoma, [Phys. Rev. D 67, 114004 \(2003\)](#).
15. “Quark number susceptibility in hard thermal loop approximation,” P. Chakraborty, M. G. Mustafa and M. H. Thoma, [Eur. Phys. J. C 23, 591 \(2002\)](#).

■ Invited talks published as full length articles in proceedings

1. “Gluon condensate and QCD propagators above deconfinement temperature”, P. Chakraborty, in “[Quark Gluon Plasma](#)”, Jajati Nayak *et al* (Eds), p. 76, Narosa (2014). Proceedings of QGP Meet 2012 at VECC, Kolkata. (ISBN : 978-81-8487-407-5)

2. "Non perturbative aspects of quark gluon plasma above deconfinement temperature", P. Chakraborty, [Proc. DAE Symp. on Nuc. Phys., 57, 118 \(2012\)](#).
3. "Probing the response of Quark Gluon Plasma" P. Chakraborty, in "[Physics and Astrophysics of Hadrons and Hadronic Matter](#)", A.B. Santra (Ed.), Narosa (2008), p. 304. Proceedings of International Workshop on Physics and Astrophysics of Hadrons and Hadronic Matter, Santiniketan, India (2006). (ISBN: 978-81-7319-881-6)

Courses taught at UG level

Mathematical Methods, Electricity and Magnetism, Quantum Mechanics, Statistical Mechanics, Nuclear and Particle Physics, Modern Physics, Mechanics, Numerical Analysis and Computer Programming.

Courses taught at PG level

Mathematical Methods, Quantum Mechanics, Quantum Field Theory and Particle Physics.