

MD HASANUJJAMAN

Curriculum vitae



Basic information

Name **Dr. Md Hasanujjaman.**
Designation **Assistant Professor in Physics.**
Highest Qualification **Ph.D. in theoretical Physics.**
Contact/Office details **Department of Physics, Darjeeling Government College, Darjeeling, West Bengal, India-734101.**
Vidwan ID **522326.**
ORCID ID **0000-0002-4265-610X.**
e-mail id **jaman.mdh@gmail.com.**
Date of Joining W.B.E.S. **24-11-2015.**
Date of Joining this college **24-11-2015.**

Awards & fellowship

CSIR-UGC NET **Qualified National Eligibility Test (NET) June, 2013 and awarded Junior Research Fellowship (JRF) in Physical Science under the University Grants Commission (UGC) Fellowship Schemes.**
JEST **Qualified Joint Entrance Screen Test (JEST-2013, Rank-191) and awarded Junior Research Fellowship (JRF) in Physical Science under the Department of Atomic Energy (DAE).**
GATE **Qualified Graduate Aptitude Test for Engineering (GATE-2013, Rank-98).**

Teaching

Teaching experience **8 years 6 months.**
Course taught **(1) Mechanics, (2) Thermodynamics, (3) Waves & Acoustics, (4) Quantum Mechanics, (5) Atomic & Nuclear Physics, (6) Particle Physics, (7) Astrophysics, (8) Python programming.**

Research

Ph.D. **Work station: Variable Energy Cyclotron Centre (VECC, Kolkata)**, degree awarded by University of Calcutta.

Research **High Energy Nuclear Physics (Theoretical)**, Quark Gluon Plasma, QCD Phase
Interest **diagram and Critical Point.**

Publications

- 1, *Nonlinear pulse dynamics in a magnetized and nonextensive Quark-Gluon Plasma*, T. Bhattacharyya, and M. Hasanujjaman, [arXiv:2403.11630 \(2024\)](#).
- 2, *Correlation of density fluctuation in a magnetized QCD matter near the critical end point*, M. Rahaman, M. Hasanujjaman, A. Bhattacharyya, G. Sarwar, J-e Alam, [Eur. Phys. J. C 84, 279 \(2024\)](#).
- 3, *Causality and stability of relativistic spin hydrodynamics*, G. Sarwar, M. Hasanujjaman, J. R. Bhatt, H. Mishra, J-e Alam, [Phys. Rev. D 107, 054031 \(2023\)](#).
- 4, *Role of slow out-of-equilibrium modes on the dynamic structure factor near the QCD critical point*, G. Sarwar, M. Hasanujjaman, J-e Alam, [Phys. Rev. D 106, 074029 \(2022\)](#).
- 5, *Nonlinear waves in a hot, viscous and non-extensive quark-gluon plasma*, G. Sarwar, M. Hasanujjaman, T. Bhattacharyya, M. Rahaman, A. Bhattacharyya, J-e Alam, [Eur. Phys. J. C, 82, 189 \(2022\)](#).
- 6, *The fate of nonlinear perturbations near the QCD critical point*, G. Sarwar, M. Hasanujjaman, M. Rahaman, A. Bhattacharyya, J-e Alam, [Phys. Lett. B 820, 136583 \(2021\)](#).
- 7, *Dynamical spectral structure of density fluctuation near the QCD critical point*, M. Hasanujjaman, G. Sarwar, M. Rahaman, A. Bhattacharyya, J-e Alam, [Eur. Phys. J. A 57, 283 \(2021\)](#).
- 8, *Dispersion and suppression of sound near the QCD critical point*, M. Hasanujjaman, M. Rahaman, A. Bhattacharyya, J-e Alam, [Phys. Rev. C 102, 034910 \(2020\)](#).
- 9, *Initial conditions from the shadowed Glauber model*, S. Chatterjee, S. K. Singh, S. Ghosh, M. Hasanujjaman, S. Sarkar, J-e Alam, [Phys. Lett. B 758, 269-273 \(2016\)](#).

Conference Proceedings

- 1, *The study of propagation of nonlinear wave in QGP: a possible tool to distinguish the extensive and non-extensive thermodynamic background*, M. Hasanujjaman, G. Sarwar, M. Rahaman, A. Bhattacharyya, J.Alam, 65th DAE BRNS Symposium on nuclear physics, 636-637, **vol: 65, pages: 636-639, ISBN: 818372084-6**, 1-5 December, 2021.

2, *Nonlinear waves in search for QCD critical Point*, G. Sarwar, M. Hasanujjaman, M. Rahaman, A. Bhattacharyya, J. Alam, *65th DAE BRNS Symposium on nuclear physics*, 638-639, **vol: 65, pages: 638-639, ISBN: 818372084-6**, 1-5 December, 2021.

3, *Initial Condition dependence of hydrodynamic flow of Quark Gluon Plasma*, M. Hasanujjaman, S. K. Singh, S. Ghosh, S. Chatterjee, G. Sarwar, *65th DAE BRNS Symposium on nuclear physics*, 808-809, **vol: 60, pages: 808-809, ISBN: 81-8372-077-3**, 7-11 December, 2015.

4, *Cold Nuclear matter effects on the correlation between eccentricity and multiplicity*, S. K. Singh, S. Chatterjee, M. Hasanujjaman, S. Ghosh, J. Alam, *DAE Symp.Nucl.Phys. 60 (2015) 804-805*, **vol: 60, pages: 804-805, ISBN: 81-8372-077-3**, 7-11 December, 2015.

5, *Nucleon shadowing in Glauber model*, S. Chatterjee, S. Ghosh, S. K. Singh, M. Hasanujjaman, J. Alam, *Acta Phys.Polon.Supp. 197, Vol-9, No-2 (2016)*, **PL ISSN 1509-5770**, 3-7 November, 2015.

Talks & conferences

- India-JINR Meet **Critical effects on the evolution of Quark Gluon Plasma**, *India-JINR workshop on elementary particle and nuclear physics, and condensed matter research 2023, Oct 16- 19, 2023*, (Talk online).
- CPOD2022 **Correlation of fluctuation with parametric slow modes: a signature of the QCD critical point?**, *Critical Point and Onset of Deconfinement 2022, Nov 28-Dec 02, 2022*, (Talk online).
- ATHIC2021 **Suppressed flow harmonics: a signature of the QCD critical point?**, 8th The Asian Triangle Heavy-ion Conference (ATHIC 2021), Inha University, Incheon, South Korea , 05 -09 November, 2021(Talk online).
- DAE Symposium **The study of the propagation of nonlinear waves in QGP: a possible tool to distinguish the extensive and non-extensive thermodynamic background**, *65th DAE BRNS Symposium on nuclear physics 01-05 December, 2021 (Talk online)*.

Details regarding participation in FIP/OP/RC

- OP **Participated in the UGC sponsored Orientation Course (online) organized by the UGC-HRDC, Mizoram University, 28.07.2020 to 17.08.2020.**
- RC **Participated in the UGC sponsored online Refresher Course in "Teacher Education" organized by the UGC-HRDC, Aligarh Muslim University, 21.08.2021 to 04.09.2021.**
- RC **Participated in the UGC sponsored online Refresher Course on 'Ecology and Environmental Sciences' organized by Malaaviya Mission Teacher Training Centre (MMTTC) Maulana Azad National Urdu University, Hyderabad, 16.01.2024 to 30.01.2024.**

STC **Participated in the UGC sponsored online Short-term course on 'NEP 2020 ORIENTATION & SENSITIZATION PROGRAMME' by Malaaviya Mission Teacher Training Centre (MMTTC) Maulana Azad National Urdu University, Hyderabad, 18.03.2024 to 27.03.2024.**