Dr. Arijit Ghoshal

Designation : Professor of Mathematics
Administrative responsibility : Coordinator, UGC-SWAYAM, The University of Burdwan

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Education

- B.Sc., Mathematics (Hons.), Suri Vidyasagar College (The University of Burdwan), India
- M.Sc., Applied Mathematics (Specialisation: Quantum Mechanics), The University of Burdwan, India
- Ph.D., Mathematics (Theoretical Physics), Visva-Bharati, India
- Post Doctoral Fellow, Institute of Atomic and Molecular Sciences, Taipei, Taiwan

Teaching experience

- Lecturer, Suri Vidyasagar College (The University of Burdwan), India
- Professor (on Lien), Kazi Nazrul University, India
- Assistant Professor, Associate Professor & Professor, The University of Burdwan, India

Administrative experience

- Head, Department of Mathematics, The University of Burdwan
- Director, UGC-HRDC, The University of Burdwan
- Coordinator, DST PURSE, Phase 2, The University of Burdwan
- Director, Centre for Distance and Online Education [Formerly Directorate of Distance Education], The University of Burdwan
- Dean, Faculty of Science, Kazi Nazrul University, India
- Head, Department of Mathematics, Kazi Nazrul University, India
- Controller Examinations, Kazi Nazrul University, India
- Course Coordinator (Mathematics), Distance Education, The University of Burdwan, India
- Treasurer of the 2nd Regional Science & Technology Congress (Western Region), 2017 held during November 16-17, 2017 in The University of Burdwan.
- Organising Secretary, 4th Regional Science & Technology Congress (Western Region), 2019 held during December 09-10, 2019 in The University of Burdwan.

- Nodal Officer (Organising Secretary), 5th Regional Science & Technology Congress (Region 7), 2022-23 held during January 06-07, 2023 in The University of Burdwan

Award/Fellowship/Recognition

- Junior and Senior Research Fellow, Council for Scientific and Industrial Research, India
- Post Doctoral Fellow, Institute of Atomic and Molecular Sciences, Taipei, Taiwan
- Visiting Professor, Institute of Mathematical Science, University of Malaya, Malaysia
- Visiting Professor, Institute of Atomic and Molecular Sciences, Taipei, Taiwan
- Shiksha Ratna Award by the Government of West Bengal, 2019

Research interest

- Atomic & Molecular collisions
- Atomic collisions in plasmas
- Atomic and Molecular structure in plasmas
- Interaction of positron and positronium with atoms
- Atoms in external electric and magnetic fields
- Mathematical physics

Some recent publications

1. Calculation of the critical bound–continuum limit of the one-electron atoms interacting with the generalised exponential cosine screened potential using scattering formalism – Santu Ghosh, Biswajit Das, Netai Das and **Arijit Ghoshal**, *Journal of Physics A: Math. Theor.* **58**, 105301 (2025) (15pp)
2. Spherically confined hydrogenic atoms under classical non-ideal plasmas: Scaling law for the critical cage size - Netai Das, Biswajit Das and **Arijit Ghoshal**, *International Journal of Quantum Chemistry* **124**, e27265(1-11) (2024)
3. Helium atom embedded in non-ideal classical plasmas: Doubly excited singlet S states - Netai Das, **Arijit Ghoshal** and Yew Kam Ho, *Contributions to Plasma Physics*, e202300112(1-10) (2024)
4. Positronium Negative Ion Embedded in Non-ideal Classical Plasmas: Doubly Excited Singlet S States - Netai Das, **Arijit Ghoshal** and Yew Kam Ho, *Few-Body Systems* **65**, 46(1-9) (2024)
5. Structural properties of spherically confined hydrogenic atoms: Effect of dense quantum plasmas - Netai Das and **Arijit Ghoshal**, *Physics of Plasmas* **31**, 053513(1-13) (2024)
6. Dynamics of electron capture in positron-hydrogen scattering under dense semi-classical plasmas - Kamalika Das, Netai Das and Arijit Ghoshal, *Contributions to Plasma Physics* e202400012 (2024)
7. Doubly Excited States of Beryllium-Like Ions (Z= 4-10) in Dense Quantum Plasmas - Nirvik Masanta, Arijit Ghoshal and Yew Kam Ho, *Few-Body Systems* **65**, 64(1-14) (2024)
8. Physicochemical properties of the confined hydrogen atom under dense semiclassical hydrogen plasma – Biswajit Das, Netai Das and Arijit Ghoshal, *Physics of Plasmas* **31**, 103512 (1-13) (2024)
9. Electron scattering from hydrogen atom in dense semi-classical hydrogen plasma: S-wave resonance states – Netai Das, Arijit Ghoshal and Yew Kam Ho, *Journal of Quantitative Spectroscopy and Radiative Transfer* **333**, 109318 (2025)
10. Effects of non-ideality of classical plasmas on the 1Se resonance states in H^- - Netai Das, **Arijit Ghoshal** and Yew Kam Ho, *Physics of Plasmas* **30**, 063511(1-8) (2023)