

# Sayanee Jana

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## PROFILE:

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- ◆ **Assistant professor in Physics** at Bangabasi College, affiliated by University of Calcutta.
- ◆ **Theoretical Physicist** with a **PhD** in **plasma physics**.

## EDUCATION

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- ◆ Ph.D.: 2018, Saha Institute of Nuclear Physics, HomiBhabha National Institute.  
Thesis Title: **Nonlinear coherent structures in plasmas**.
- ◆ Post M.Sc. Associateship Course: Saha Institute of Nuclear Physics, 2012-13
- ◆ M.Sc.: Physics, Jadavpur University
- ◆ B.Sc.: Physics, Jadavpur University

## RESEARCH AREAS

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Theoretical Plasma Physics, Dusty Plasma, Coherent Structures.

## IMPORTANT PUBLICATIONS

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1. Nonlinear Alfvén wave dynamics in positive ion - negative ion plasmas, **Sayanee Jana** and Manoranjan Khan, **Physica Scripta**, 96, 125612, 2021.
2. Nonlinear density collapse in one-dimensional cold atomic gas, **Sayanee Jana**, SamiranGhosh, Nikhil Chakrabarti and Manoranjan Khan, 2019, **PhysicaScripta**, 94, 055210.
3. Existence of electron acoustic solitary waves in relativistic limit, **Sayanee Jana**, MithunKarmakar and Nikhil Chakrabarti, 2018, **Physics of Plasmas**, 25, 092101.
4. Effect of electron inertia on dispersive properties of Alfvén waves in coldplasmas, **Sayanee Jana**, SamiranGhosh and Nikhil Chakrabarti, 2017, **Physics of Plasmas**, 24, 102307.
5. Stability characteristics of a non-Newtonian Strongly coupled DustyPlasma in presence of Shear flow, SudipGarai, **Sayanee Jana**, M. S. Janaki and Nikhil Chakrabarti, 2016, **Europhysics Letter**, 114, 65003.
6. Nonlinear coherent structures of Alfvén wave in a collisional Plasma, **Sayanee Jana**, SamiranGhosh and Nikhil Chakrabarti, 2016, **Physics of Plasmas**, 23, 072304.
7. Formation and evolution of vortices in a collisional strongly coupleddusty plasma, **Sayanee Jana**, Debabrata Banerjee and Nikhil Chakrabarti, 2016, **Physics Letters A**, 380, 2531-2539.
8. Stability of an elliptical vortex in a strongly coupled dusty plasma, **Sayanee Jana**, Debabrata Banerjee and Nikhil Chakrabarti, 2015, **Physics of Plasmas**, 22, 083704.