



Sudip Garai

Diamond Harbour Women's University
Diamond Harbour Road, Sarisha,
South 24 Parganas, 743368, India

☎ (+91) 8334987804; ☎ (+91) 8240287250

Date of Birth: 02nd May 1988

✉ sudip.dhwu@gmail.com

✉ sudip.garai@yahoo.com

<https://sites.google.com/view/sqphysdhwu/home>

ABOUT ME

A theoretical plasma physicist with **8** years of research and **1.5** years of teaching experiences who is willing to work in collaboration.

QUALIFICATIONS

2011-2016

PhD in Science

Title of the thesis "Velocity Shear Driven Phenomena In Strongly Coupled Dusty Plasma"
Calcutta University

2010-2011

Post-MSc in Physics

Saha Institute of Nuclear Physics

2008-2010

MSc in Physics

Visva Bharati University

2005-2008

BSc in Physics

Visva Bharati University

AREAS OF SPECIALIZATION

Strongly coupled dusty plasma, Velocity shear driven phenomena, Non-Newtonian fluids, Linear and nonlinear phenomena

SKILLS

Languages: C, C++, Fortran

Softwares: MATLAB, WinEdt, MikTeX

REFeree POSITION

Physics of Plasmas (AIP), Plasma Research express (IOP), Physica Scripta (IOP), Journal of Physics A: Mathematical and Theoretical (IOP)

EXPERIENCE

December 2016 – Present

Assistant Professor

Diamond Harbour Women's University

February 2016 – August 2016

Research Associate

Saha Institute of Nuclear Physics

ACHIEVEMENTS & AWARDS

Life Member of Plasma Science Society of India, Cleared CSIR-UGC National Eligibility Test, December 2010, Received the prestigious "Post graduate merit scholarship for university rank holders"

COURSES TAUGHT

Astrophysics, Statistical Mechanics, Fortran, Mathematical Methods, Nuclear Physics

REFERENCES

Prof. M. S. Janaki, PPD, Saha Institute of Nuclear Physics, ms.janaki@saha.ac.in

Prof. Nikhil Chakrabarti, PPD, Saha Institute of Nuclear Physics,
nikhil.chakrabarti@saha.ac.in

LIST OF PUBLICATIONS

9. **Sudip Garai**; “Stability characteristics of Rayleigh-Taylor instability in a strongly coupled incompressible dust fluid with finite shear flow”, *Phys. Plasmas* **23**, 113706 (2016)
8. **S. Garai**, M. S. Janaki, and N. Chakrabarti; “Nonlinear coupling of acoustic and shear mode in a strongly coupled dusty plasma with a density dependent viscosity”, *Astrophys. Space Sci. Online First* DOI: 10.1007/s10509-016-2890-1 (2016)
7. **S. Garai**, S. Jana, M. S. Janaki, and N. Chakrabarti; “Stability of collective modes in a strongly coupled non-Newtonian dusty plasma with finite velocity shear”, *Europhys. Lett.* **114**, 65003 (2016)
6. **S. Garai**, D. Banerjee, M. S. Janaki, and N. Chakrabarti; “Shear flow driven instability in an incompressible dusty plasma with a density dependent viscosity”, *Indian Journal of Physics* **90**, 717 (2016)
5. **S. Garai**, M. S. Janaki, and N. Chakrabarti; “Coupling of dust acoustic and shear mode through velocity shear in a strongly coupled dusty plasma”, *Phys. Plasmas* **22**, 073706 (2015)
4. **S. Garai**, D. Banerjee, M. S. Janaki and N. Chakrabarti; “Stabilization of Rayleigh-Taylor instability in a non-Newtonian incompressible complex plasma”, *Phys. Plasmas* **22**, 033702 (2015)
3. **S. Garai**, D. Banerjee, , M. S. Janaki, and N. Chakrabarti; “Velocity shear effect on the longitudinal wave in a strongly coupled dusty plasma”, *Astrophys. Space Sci.*, **349**, 789 (2014)
2. **S. Garai**, D. Banerjee, , M. S. Janaki, and N. Chakrabarti; “Dynamics of the longitudinal and transverse modes in presence of equilibrium shear flow in a strongly coupled dusty plasma”, *AIP Conference Proceedings*, **1582**, 93 (2014)
1. D. Banerjee, **S. Garai**, M. S. Janaki, and N. Chakrabarti; “Kelvin-Helmholtz instability in non-Newtonian complex plasma”, *Phys. Plasmas* **20**, 073702 (2013)