



Suman Dey

Date of birth: 09/03/1998 | **Nationality:** Indian | **Gender:** Male | (+91) 9830350942 |

dey.suman.vbu@gmail.com | 03323081942@visva-bharati.ac.in |

Village and P.O.: Deulpur, House no.: n0019, 711411, Howrah, India

EDUCATION AND TRAINING

10/08/2019 – 17/09/2021 – Santiniketan, West Bengal, Bolpur, India

M.SC. IN PHYSICS (ASTROPHYSICS AND COSMOLOGY) – Visva-Bharati University

Field(s) of study

◦ Physics

Thesis: Non Relativistic Quantum Mechanical Motion in a Uniformly Accelerated Frame

CGPA - 7.78/10.00, Graded 'A+' | EQF level 7 | <http://visvabharati.ac.in/index.html>

01/06/2015 – 28/05/2018 – Kolkata, West Bengal, Kolkata, India

B.SC. IN PHYSICS – University of Calcutta

Field(s) of study

◦ Physics

Marks - 56.62%, Graded 'B' | EQF level 6 | <https://www.caluniv.ac.in/>

WORK EXPERIENCE

03/2022 – CURRENT – Santiniketan, India

RESEARCH PROJECT ON EXTRAGALACTIC ASTRONOMY – GUIDE: DR. BISWAJIT PANDEY, VISVA-BHARATI UNIVERSITY, SANTINIKETAN, INDIA

Project topic: Testing Anisotropy in the Universe Using the **HyperLeda database**.

Software: **HEALPix**

12/2021 – CURRENT – Bengaluru, India

RESEARCH PROJECT ON EARLY UNIVERSE COSMOLOGY – GUIDE: DR. SAYANTAN CHOUDHURY, QASTM GROUP, INTERNATIONAL CENTRE FOR THEORETICAL SCIENCES (ICTS)

Project: Path Integral formulation in a non-equilibrium system in the context of primordial cosmology.

10/2020 – 12/2020 – Bangalore, India

RESEARCH INTERNSHIP ON ASTROPHYSICS & ASTRONOMY – GUIDE: SUNDAR M N, SOCIETY FOR SPACE EDUCATION RESEARCH AND DEVELOPMENT (SSERD), BANGALORE, IN

Project: Cross-matching Between Optical and Radio Catalogues using K-D Tree algorithm for Detection/Classification of Galaxies

<https://www.sserd.org/>

<https://www.sserd.org/2021/01/10/unleashing-candescent-universe-with-cosmic-data-crew-sserd-online-space-research-internship/>

07/2020 – 09/2021 – India

M.SC. DISSERTATION - "NON-RELATIVISTIC QUANTUM MECHANICAL MOTION IN A UNIFORMLY ACCELERATED FRAME" – SUPERVISOR: PROF. SOMENATH CHAKRABORTY, VISVA-BHARATI UNIVERSITY, SANTINIKETAN, INDIA

07/2020 – 09/2020 – Kolkata, India

SUMMER WORKSHOP ON PLASMA PHYSICS – GUIDE: DR. SWARNIV CHANDRA, INSTITUTE OF NATURAL SCIENCES AND APPLIED TECHNOLOGY, KOLKATA, WB

Project: Stable Parametric Regions of Rogue Waves for Highly-Energetic Pair Plasmas.

09/2020 – 04/2021 – Kolkata, India

RESEARCH PROJECT ON PLASMA ASTROPHYSICS – GUIDE: DR. SWARNIV CHANDRA, INSTITUTE OF NATURAL SCIENCES AND APPLIED TECHNOLOGY, KOLKATA, WB

Project: Two-stream Plasma Instability as a Potential Mechanism for Particle Escape in the Venusian Ionosphere

02/09/2020 – CURRENT

SUBJECT MATTER EXPERT IN ADVANCED PHYSICS – CHEGG INDIA PRIVATE LIMITED

PUBLICATIONS

Chaotic Excitations of Rogue Waves in Stable Parametric Region for Highly-Energetic Pair Plasmas.

<http://140.105.16.144/index.php/aphysrev/article/viewPDFInterstitial/1873/644> – 2021

Dey, S., Maity, D., Ghosh, A., Samanta, P., De, A., & Chandra, S. (2021). Chaotic Excitations of Rogue Waves in Stable Parametric Region for Highly-Energetic Pair Plasmas. The African Review of Physics, 15.

Nonlinear Excitations in Dust-Ion Acoustic Waves and the Formation of Rogue Waves in Stable Parametric Region in a 3-Component Degenerate Plasma

<http://140.105.16.144/index.php/aphysrev/article/viewPDFInterstitial/1870/641> – 2021

Samanta, P; De, A; **Dey, S.**; Maity, D; Ghosh, A; Chandra, S. (2021). Nonlinear Excitations in Dust-Ion Acoustic Waves and the Formation of Rogue Waves in Stable Parametric Region in a 3-Component Degenerate Plasma. The African Review of Physics, 15.

Formation of nonlinear stationary structures in ionospheric plasma

2021

Manna, G., Goswami, J., Sarkar, J., **Dey, S.**, Gupta, A., & Chandra, S., "Formation of nonlinear stationary structures in ionospheric plasma," IEEE (Under revision), 2021.

Two-stream plasma instability as a potential mechanism for particle escape in the Venusian ionosphere

2021

S. Dey, S. Ghosh, D. Maity, and S. Chandra, "Two-stream plasma instability as a potential mechanism for particle escape in the Venusian ionosphere," Pramana - Journal of Physics (Under Revision), 2021.

Non-Relativistic Quantum Mechanical Motion in a Uniformly Accelerated Frame

2022

S. Dey, S. Chakraborty, "Non-Relativistic Quantum Mechanical Motion in a Uniformly Accelerated Frame," Foundation of Physics (Under Revision), 2022

HONOURS AND AWARDS

17/03/2022

Cleared The Graduate Aptitude Test in Engineering (GATE) with GATE Score 359, AIR-2731 – Organizing Chair, GATE 2022, GATE-JAM Office, IIT Kharagpur, West Bengal, India - 721302

Best Poster Presentation in International Conference on Advances in Plasma Science and Technology (ICAPST) 2021 – Sri Shakthi Institute of Engineering and Technology Coimbatore - 641062

Got 4th place and was awarded for best Poster Presentation in International Conference on Advances in Plasma Science and Technology (ICAPST) 2021

DIGITAL SKILLS

OS

Operating Systems (Windows, Linux)

Programming

SQL (MySQL) | C/C++ | Fortran | LaTeX | Python

Data

HyperLeda database | Optical dataset from SDSS (Sloan Digital Sky Survey) | Worked with Radio data from Giant Meter wave Radio Telescope (GMRT)

Software

HEALPix

CERTIFICATIONS, INTERESTS

04/2020 – 06/2020

Online Python Certificate Course with CloudXLab

Indian Institute of Technology, Roorkee, IN

<https://drive.google.com/file/d/1qmEvmhNVBkpsZNAAXF8zxv5DYTb0mk8W/view>

PRESENTATIONS

International Conference on Advances in Plasma Science and Technology (ICAPST) 2021

Coimbatore, INDIA - **Poster Presentation.**

Title: **Two Stream Instability and Particle Escape in The Venusian Ionosphere**

Scholars Colloquium on Plasma Physics 2020

Physics Joint • An Association of Physicist, Kolkata - 700032, INDIA - **Oral Presentation.**

Title: **Stable Parametric Regions of Rogue Waves for Highly-Energetic Pair Plasmas.**

WORKSHOPS & SCHOOLS:

2021

International Summer Program

The International Summer Program at the Graduate School of Science (GSS) of Osaka University is an intensive research internship for overseas students majoring in natural sciences and related fields in sciences.

https://www.sci.osaka-u.ac.jp/en/news/2532_1/

2021

International Summer School on ISM from Galaxies, from Epoch to the Reionization to the Milky Way (online)

Organized by Programme National de Physique et Chimie du Milieu Interstellaire (PCMI) of CNRS/INSU and Programme National de Cosmologie et Galaxies of CNRS/INSU.

<https://ismgalaxies2021.sciencesconf.org/>

● RECOMMENDATIONS

Dr. Biswajit Pandey – Assistant Professor – biswap@visva-bharati.ac.in

Department of Physics
Visva Bharati, Santiniketan-731235, INDIA

Dr. Sayantan Choudhury – Visiting Scientist – sayantan.choudhury@icts.res.in

International Centre for Theoretical Sciences (ICTS), Tata Institute of Fundamental Research (TIFR)
Bengaluru, India

Dr. Swarniv Chandra – Assistant Professor – swarniv147@gmail.com

Government General Degree College at Kushmandi, West Bengal, India
Institute of Natural Sciences and Applied Technology, Kolkata, India