

Session Program

31 October 2025 to 1 November 2025



**SPARK 2025 (Symposium on Physics: Advances
in Research and Knowledge)**

Poster Presentations

North Lakhimpur University, Physics Gallery, Conference Hall, Digital Classroom, and Ranghar Auditorium
Khelmati, Lakhimpur, Assam-787031, India

Saturday 1 November

11:45

Poster Presentations: SPARK 2025

Poster Session | **Location:** Ranghar Auditorium, NLU | **Conveners:** Dr Manoranjan Dutta, Dr Dipankar Chetia

Design and Development of a High Voltage Pulsed Power Driver for a Tubular Inertial Electrostatic Confinement Fusion Device

Speakers

Mr Nishant Bharali, Sanjib Kalita

Design and simulations of a “Monochromatic Neutron Source for precision measurements”

Speakers

Mr Monuj Gogoi, RASNA BARUAH

Design, Simulation, and Offline Testing of a Fast Neutron Moderator for AD-BNCT

Speaker

Monuj Gogoi

Distinguishing CPT-Odd and CPT-Even Contributions of Lorentz Invariance Violation in Neutrino Oscillations

Speaker

Mr Priyankush Deka

Dynamical Dark Energy parametrizations with the KiDS-1000 Observations

Speaker

Mr Dharmendra Kumar

Effect of deposition duration on the structural, optical, and electrical properties of chemically deposited $\text{Cd}_{1-x}\text{Mn}_x\text{S}$ thin films

Speaker

HIMANSHU SHARMA PATHOK

Energy loss and Quenching Factor studies for low-recoil collision cascades in Silicon using Molecular Dynamics simulations

Speaker

Mr Deepak Mishra

Green Synthesis and Characterisation of Silver Nanoparticles Using Leaf Extract of *Houttuynia cordata* (Mosondori) from Assam

Speakers

Dipika Robidas, Kakali Bhuyan, Ms Spondita Meherayan

Laser-Induced Fluorescence Spectroscopy based sensors for Environmental Monitoring: Applications in Water and Air Quality Assessment

Speaker

Ms Pragya Parmita Konwar

Mass spectrum of tetraquarks using WKB approximation

Speaker
Tanmay Dev

Spectroscopic and DFT insights of Ophthalmic Acid

Speaker
Amar Jyoti Saikia

Toward Affordable Multispectral Methods for Optical Glucose Detection Using Sugar Solutions and Blood-Like Tissue Phantoms

Speakers
Dr Dipankar Chetia, Mr Nikunja Ranjan Borah

Wavelength-Dependent SERS of Methyl Orange on Ag/ZnO/AZO Heterostructures Based on Analytical Enhancement Factor

Speaker
Dr Pradhyut Rajkumar

Propagation of nonlinear waves in molecular clouds

Speaker
Dr Archana Haloi

Application of ST RADAR in the Study of Thunderstorms over Complex Terrain

Speaker
Pankaj Mili

Controlling Magnetic Behavior of Nanowires Through Artificial Defects: A Micromagnetic Study.

Speaker
Dr. Dibya Jyoti Sivananda

12:45