Seminar on Quantum Material
organized by the Dept. of Physics and IQAC on 13.12.2025

The Department of Physics, in collaboration with IQAC, organized a seminar on "Geometry and Topology in Quantum Materials" on 13th December, 2025 as part of the celebration of International Year of Quantum Science and Technology (IYQ) in order to recognize 100 years since the initial development of quantum mechanics.

The resource person for the seminar was Dr. Barun Ghosh, Assistant Professor, S. N. Bose National Centre for Basic Sciences.

Twelve present students along with alumni, serving and former faculty members of the Department of Physics, actively participated in the seminar. Owing to the interdisciplinary nature of the talk, some students from the Department of Mathematics and Chemistry were also present.

Dr. Ghosh discussed the fundamental ideas of quantum physics, like resistance-free superconductors to surfaces that conduct electricity while the inside stays insulating using simple pictures of symmetry, geometry, and topology in materials. He also discussed about the Hall effect and why they become "quantized" in some systems and elaborated on quantum materials, highlighting his recent research work on a material that provides a solid-state platform for realizing elementary Axion particle.

The seminar greatly inspired the students, enhanced their understanding of modern physics, and motivated them to explore research opportunities in advanced areas of quantum science.



Dr. Ghosh delivering the lecture



Resource person with the participants



A group photo