

Activity Report

Name of Event: Seminar on “Hilbert Space”, held on 6th November 2017

Topic: “*Hilbert Space*”.

Speaker: Mr. Aritra Ghosh,
3rd Year Student, B.Sc. Physics Hons.
Department of Physics,
Surendranath College, Kolkata, India.

Date: 06-11-2017

Organised by: Department of Physics,
Surendranath College, Kolkata, India.

Number of Participants: 29

Summary:

The seminar on the “Hilbert Space” was organized by the Department of Physics, Surendranath College. In this seminar faculties and students of the Department of Physics were participated. The speaker, Mr. Aritra Ghosh discussed the axiomatic definition of a Hilbert space in a very simple way with several intuitive examples so that the students can understand it. Hilbert spaces are complete normed linear inner product spaces where the norm of any vector is determined via the inner product. This is a straightforward generalization of Euclidean vector spaces. Particular emphasis was given on completeness of such spaces which essentially implies that every Cauchy sequence must converge within the space. Finally, the speaker explained the role of Hilbert spaces in the mathematical formulation of quantum mechanics. He also answered all the questions raised by the participants in the question answer session. The lecture was very informative and it helped the audience to learn more about the Hilbert Space.