

MONDAY

COLLOQUIUM

What is Reciprocity?

Kapil Hari Paranjape (IISER, Mohali)

30 Sep 2024 (Monday) | 16:00 Hrs (Tea / Coffee 15:45 Hrs) | Venue: TIFRH Auditorium

An exposition of some of the ideas of Langlands, Grothendieck and Deligne that tie up classical questions in number theory with techniques from group theory and geometry is presented. The underlying philosophy is introduced through classical questions about modular arithmetic and regular polygons. The vast generalisation of these ideas led to the proof of Fermat's Last Theorem along the way! We also present some questions (raised in collaborative work with Dinakar Ramakrishnan) that go beyond the current conjectures. This talk is based on an earlier talk which was given to a non-mathematical audience.