ICTS String Seminar

Title : Gauging non-invertible symmetries in 2+1d

Speaker : Rajath Radhakrishnan (International Centre for Theoretical Physics, Italy)

Date : Wednesday, 16 April 2025

Time : 3:30 PM (IST)

Abstract : Symmetries and their gauging have played a pivotal role in constructing quantum field theories which describe the fundamental forces of nature. In recent years, symmetry has undergone a significant generalization with the advent of non-invertible symmetries: transformations that act non-invertibly on quantum field theories yet retain many hallmark features of conventional symmetries. In this talk, I will introduce the framework of non-invertible symmetries and highlight their emerging roles across high-energy physics, condensed matter physics, and quantum information theory. I will then focus on a particular application involving the preparation of anyons in trapped-ion quantum computers. Motivated by this application, I will present a procedure to gauge non-invertible symmetries in 2+1-dimensional topological quantum field theories.

Venue : Emmy Noether Seminar Room
Zoom Link: https://icts-res-in.zoom.us/j/88092766911?pwd=R3ZrVk9yeW96ZmQ4ZG9KRzVhenRKZz09
Meeting ID: 880 9276 6911
Passcode: 232322