ICTS Geometry and Physical Mathematics Seminar

Title : Exact partition function of arithmetic Ising model

Speaker : Ken Kikuchi (ICTS)

Date : Thursday, 20 August 2026

Time : 03:30 PM (IST)

Abstract : We present a compact formula for the exact partition function of the d-dimensional arithmetic Ising model (AIM). For a 2 x 2 system, we express it analytically using the q-Hurwitz-Lerch zeta function and derive explicit forms for the free energy and entropy. Additionally, we find that the entropy increases at high temperatures, supporting the presence of entropic order. This talk is based on a paper to appear this week with Anu Dhochak and Shrinit Singh.

Venue : Chern Lecture Hall
Zoom Meeting: https://icts-res-in.zoom.us/j/91394447728?pwd=1oIBosE0AB7JbZHPQcLij4UlSHivOz.1
Meeting ID: 913 9444 7728
Passcode: 202040