



अंतर्राष्ट्रीय सैद्धांतिक विज्ञान केंद्र  
International Centre for Theoretical Sciences

टाटा मूलभूत अनुसंधान संस्थान

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भारत सरकार के परमाणु ऊर्जा विभाग की एक स्वायत्त संस्थान एवं समविश्वविद्यालय

An Autonomous Institution of the Department of Atomic Energy of Government of India and a Deemed to be University

## ICTS Seminar

**Title** : A glimpse at conformal invariance of planar lattice models

**Speaker** : Trishen Gunaratnam (Tata Institute of Fundamental Research, Mumbai)

**Date** : Wednesday, 27 May 2026

**Time** : 2:15 PM (IST)

**Abstract** : Many models of statistical physics exhibit phase transitions: a drastic change in behaviour as a parameter is varied across a critical point. Their critical behaviour is remarkably rich, marked by strong correlations, scale and rotational invariance, and independence on microscopic details. In the '80s, the physicists Belavin, Polyakov, and Zamalodchikov conjectured that many planar models exhibit a more dramatic type of emergent symmetry: conformal invariance. Mathematicians have made remarkable progress in establishing conformal invariance of certain planar models in the past two decades, but we are very far from the full picture. I will give you a glimpse at some of the highlights.

*This talk is aimed at SN Bhatt students. PhD students are welcome to attend.*

**Venue** : Chern Lecture Hall