universität wien

Fakultät für Mathematik

Mathematisches Kolloquium

Mittwoch, 8. Jänner 2025
Sky Lounge

EINLADUNG

Hugo Duminil-Copin
(Université de Genève)

„Critical phenomena through the lens of the Ising model"

„Critical phenomena through the lens of the Ising model"

Abstract:
The Ising model is one of the most classical lattice models of statistical physics undergoing a phase transition. Initially imagined as a model for ferromagnetism, it revealed itself as a very rich mathematical object and a powerful theoretical tool to understand cooperative phenomena. Over one hundred years of its history, a profound understanding of its critical phase has been obtained. While integrability and mean-field behavior led to extraordinary breakthroughs in the two-dimensional and high-dimensional cases respectively, the model in three and four dimensions remained mysterious for years. In this talk, we will present recent progress in these dimensions based on a probabilistic interpretation of the Ising model relating it to percolation models.

14.45 Uhr: Kaffeejause

15.15 Uhr: Vortrag

vinum cum pane im Anschluss

Nathanael Berestycki
Radu Ioan Bot