

Einladung zu einem Vortrag in der

AG STOCHASTIK

am Dienstag, 17.02.2026, um 15.45 Uhr.

Dr. Ulrik Hansen

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spricht über das Thema

On the Ising model, its zoo of representations and a wealth of couplings

The Ising model is one of the richest objects of study in statistical mechanics, in part due to the many angles of attack on it afforded by its so-called graphical representations. These are models of random graphs for which questions about the correlation structure of the Ising model translate to geometric questions about the random graph. As such, you would expect phase transitions in the Ising model to be related to a change of geometry in the graphical representations. In this talk, we are going to turn this question on its head and ask: For any two graphical representations of the Ising model, does a geometric phase transition in the one correspond to one in the other? In this direction, I will discuss both positive, negative and mixed results, as well as the probabilistic couplings needed to relate the graphical representations to one another.

Based on various joint work with Jianping Jing, Boris Kjør, Frederik Ravn Klausen and Peter Wildemann.

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Die Dozentinnen und Dozenten der Stochastik