

# Universality in Condensed Matter and Statistical Mathematical Physics

*Wednesday, December 6, 2023 10:15 AM (55 minutes)*

Universality is a central concept in modern physics, and the rigorous derivation of such a property is an important challenge for mathematical physics. In this field, universality refers to the fact that a certain number of macroscopic properties close to phase transition are independent from microscopic details of the model (that are called irrelevant). A natural setting to investigate such property is when a certain model is perturbed and then one aims to understand the class of irrelevant perturbations for which universality holds and the class of relevant ones for which it is lost. In this presentation I will describe the physical motivation, the mathematical setting and provide a couple of results obtained recently.

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