

CONDENSED MATTER THEORY SEMINAR

Subject: **Functional renormalization for quantum spins**

Speaker: **Dr. Björn Sbierski (LMU München)**

Date & time: **Friday, 2nd of February 2024 at 3:15 p.m.**

Venue: **Room 01.114**

Abstract:

The theoretical description of frustrated quantum spin systems is one of the major challenges in modern condensed matter physics, especially in high spatial dimensions. We present our recent advances in this field based on the functional renormalization group (RG) framework and follow a two-fold approach. In a first line of work, we use pseudo-fermions to represent spin operators, in a second we directly apply the functional RG to spin correlation functions.