

## CONDENSED MATTER THEORY SEMINAR

Subject: **Dynamics of the Fermi-Hubbard model**

Speaker: **Prof. Dr. Ralf Schützhold (Direktor Institut für Theoretische Physik, Helmholtz-Zentrum Dresden-Rossendorf (HZDR))**

Date & time: **Friday, 12th<sup>th</sup> of January 2024 at 3:15 p.m.**

Venue: **Room 01.114**

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Abstract:

Understanding strongly interacting quantum many-body systems -- in particular out of equilibrium -- is one of the major challenges of contemporary physics. As the "drosophila" of such systems, we study the Fermi-Hubbard model. Via the hierarchy of correlations (supplemented by other methods), we discuss the creation, propagation and effective interaction of the associated quasi-particles in the form of doublons and holons.