

DISTINGUISHED LECTURE SERIES

Winter Term 2021/2022

Prof. Dr. Philipp Gegenwart Experimental Physics VI, Augsburg University

New quantum states driven by magnetic frustration

Frustration appears in many contexts – in magnets, its connotations are truly positive since it hinders conventional order and triggers new phenomena, giving researchers the opportunity to devise novel quantum states and even design them experimentally. Among the most sought after frustrated magnetic states are quantum spin liquids and I will report on our recent experimental research towards their realization. On the long term, the control and utilization of entanglement and fractionalized excitations will advance quantum technology. As immediate application, we recently demonstrated the excellent performance of frustrated magnets for adiabatic demagnetization refrigeration.

Date: **Monday, November 15, 2021**

Time: **04:00 pm**

Venue: **On site 46/HS 270 or Online via Zoom; the speaker is joined by Zoom**

Meeting ID: **641 9279 3075**, Passcode: **4Ko!!2122**, Link:

<https://uni-kl-de.zoom.us/j/64192793075?pwd=WnIjYWwh4ZENmV2tWZk12UoIHRUthUTog>