## **Quantum Science Generation | QSG**





Contribution ID: 40

Type: Talk

## Tensor network states for real materials

Wednesday, 3 May 2023 09:00 (1 hour)

Tensor network states are widely and very successfully used for the simulation of models of strongly correlated systems. These models are often an oversimplification of real materials. In this talk I will show how tensor network methods can be used in the context of combinations of density functional theory for realistic band structures and embedding methods such as the dynamical mean-field theory (DMFT) to describe real materials quantitatively, such as Hund's metals or materials with important spin-orbit coupling.

Abstract category

Presenter: Dr SCHOLLWÖCK, Ulrich (University of Munich)