

# **The Multi-scale Entanglement Renormalization Ansatz**

Guifre Vidal-Bonafont

Department of Physics, The University of Queensland, Australia

Tensor network algorithms, such as projected entangled pair states (PEPS) or the multi-scale entanglement renormalization ansatz (MERA), have the potential to simulate frustrated and fermionic 2D lattice models without the negative sign problem of quantum Monte Carlo techniques. In this talk I will overview the MERA formalism and describe some of the most recent results.