

Talk 14 - Emilie Huffman (Wake Forest University, USA): Hamiltonian Lattice Field Theories and Variational Eigensolver Algorithms

Friday 31 October 2025 11:00 (1h 30m)

Continuing on with the Hamiltonian Field theories introduced in the previous lecture, we consider different ways of getting a finite-dimensional Hilbert space. We discuss the Schwinger model and how to simulate fermions with the Jordan-Wigner transformation, and finally we consider quantum link models and the application of both VQE/VQD and QAOA to find the ground state and first-excited state to an $SO(3)$ -symmetric quantum link model.