

Hubbard Hamiltonian

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Abstract

Following notes file is a detailed walkthrough of entry steps into many-body physics field I had at ICFO during my summer stay in the August of 2022. I outline here process of construction, and exact diagonaliation of Fermi- and Bose- Hubbard model, in variation of either one or two component bases, representing either spinful, or spinless systems.

1 Basic Code Blocks