**Exact Diagonalization solver for Extended DMFT problem**

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In this work we have developed a solver for the Holstein-Anderson model that is based on the Exact Diagonalization approach. This solver was applied for the Extended DMFT equations for the extended Hubbard model on the square lattice with nearest-neighbor charge-charge interaction. We studied the influence of the model discretization and minimal required amount of parameters. It was found that a solution of the EDMFT equations by means of ED is possible in most regions of the U–V phase diagram of the extended Hubbard model including deep insulator regime.