

Effective mass of bound two-electron pair in extended Hubbard model on simple cubic lattice.

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An exact solutions of bound and resonant two-electron states in the limit of empty lattice (three dimensional, simple cubic) are found in extended Hubbard model by means of lattice Green functions. The dispersion relations, the wave functions and effective masses are calculated within symmetry channels. The results may be relevant to high temperature superconductivity.