ELECTRON GREEN'S FUNCTION OF GRAPHENE IN THE AHARONOV–BOHM POTENTIAL

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S u m m a r y

The dynamics of electron excitations, which are described by the Dirac equation, in the Aharonov–Bohm field has been studied. The eigenfunctions and the spectrum of the Hamiltonian of a system have been used to construct the integral formula for the electron Green's function. Possible applications of the results obtained to numerically calculate the electronic properties of graphene have been discussed.