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Isolated impurities in graphene LING YANG, University of California, Riverside, NUNO M.R. PERESP, SHAN-WEN TSAI, UNIVERSIDADE DO MINHO COLLABORATION — We study different types of isolated impurities in graphene. We employ a T-matrix formalism and find the exact electronic Green's functions. From the Green's functions, we calculate the local density of states and electron density distribution, getting exact analytical and numerical results for the electronic spectra and the Friedel oscillations around a localized impurity in a graphene lattice. We are studying the problem of an Anderson impurity in graphene.

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