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## Electrons in graphene: theoretical expectations and experiments

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Recent fabrication of graphite monolayer, graphene, and its unique properties attract increasing interest of physical community [1-5]. An electron in graphene has a pseudo-ultrarelativistic spectrum near each corner (“Dirac points”) of the hexagonal Brillouin zone. A charged two-dimensional massless neutrino would have had the same spectrum, if it exists.

In neutral graphene, the chemical potential crosses exactly the Dirac points. Low-energy electrons in graphene are massless, chiral, Dirac fermions. These fermions behave in unusual ways in comparison with ordinary electrons, leading to new physical phenomena.

The aim of this review talk is to describe the electronic properties of graphene. Special attention will be given to the comparison of experimental results with theoretical predictions.

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