

Abstract Submitted  
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**Charge-Carrier Screening in Single-Layer Graphene** DAVID

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— Unlike normal metals that have a true Fermi surface, the pointlike Fermi surface  
of undoped graphene allows for long-ranged coulomb interactions to be unscreened  
by free charges, leading to singular behaviors. Therefore, the introduction of charge  
to a neutral graphene sheet can have a profound effect on transport properties  
and device performance. In this talk I will demonstrate the effects of charge-carrier  
screening of the electron-electron and electron-impurity interactions on the electronic  
properties of graphene, as we have observed through angle-resolved photoemission  
spectroscopy (ARPES). These observations help us to understand the basis for the  
transport properties of graphene, and shed light on the fundamental physics in the  
vicinity of the Dirac point crossing.

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