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**Probing the nature of impurity scattering in graphene**

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Since the very first investigations of the electronic properties of graphene the nature of defects has been shown to play an essential role in determining the carrier density dependence of the conductance. Impurity scattering is characterized by two different times the transport and elastic scattering times which are sensitive to the mass less energy dispersion of graphene. The analysis of the ratio between these two times gives insight on the nature (neutral or charged) and range of the scatterers. We will discuss how to extract these two times from magneto-transport measurements in macroscopic samples and analyze their differences in monolayer and bilayer Graphene in relation with the different symmetry properties of their band structure and wave functions.

*“Transport and Elastic Scattering Times as Probes of the Nature of Impurity Scattering in Single-Layer and Bilayer Graphene”* M. Monteverde, C. Ojeda-Aristizabal, R. Weil, K. Bennaceur, M. Ferrier, S. Guéron, C. Glattli, H. Bouchiat, J. N. Fuchs, and D. L. Maslov Phys. Rev. Lett. **104**, 126801 (2010).