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Transport in Graphene: Ballistic, Anomalous, or Diffusive? MARIO BORUNDA, HOLGER HENNIG, ERIC HELLER, Harvard University — The discovery of graphene, consisting of a layer of carbon atoms arranged in a honeycomb lattice, represents a conceptually new class of materials that are only one atom layer thick. Recent experiments achieved extremely high mobilities in suspended graphene leading to ballistic transport. In this talk, we study implications of diffusive and ballistic transport in graphene devices and ask what could be possible signatures of "anomalous" (or superdiffusive) transport. Experimental setups to differentiate between these stochastic processes are discussed.

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