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Quantum Transport in Dirac Materials

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Over the past few years, the physics of low dimensional electronic systems has been revolutionized by the discovery of materials with very unusual electronic structures. Among these, graphene and topological insulators have taken center stage due to their relativistic-like electron dynamics and their potential applications in nanotechnology. In this talk I will briefly review the properties of graphene and topological insulators and discuss some of our recent quantum electronic transport experiments in these systems.