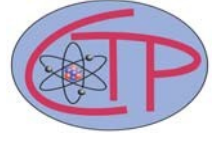




NEW YORK CITY COLLEGE OF TECHNOLOGY
Physics Department
Center of Theoretical Physics



Electron Transport in Graphene Nanostructures

Presented by:

Prof. Philip Kim
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Thursday May 05 at 12:00 pm
Namm, Room 823

Abstract

Graphene has been provided us opportunities to explore exotic transport effect in low-energy condensed matter systems and the potential of carbon based novel device applications. In this presentation I will discuss the exotic quantum transport behavior discovered in graphene nanostructures in the relation to the device applications beyond CMOS operation. In particular, I will present (i) transport energy gap formation in disordered graphene nanoribbons; (ii) quantum carrier collimation both of which appear even at room temperature employing graphene lateral heterojunction; (iii) symmetry breaking gap formation in graphene bilayer; and (iv) the enhanced device performance of suspended graphene devices and graphene with a novel substrate.

Light refreshments will be served.