

POZVÁNKA

na seminář oddělení 15 Fyzikálního ústavu AV ČR, v.v.i.

Seminář se koná

v pondělí 16. dubna 2012 v 11:00

v zasedací místnosti budovy A (1. patro vedle knihovny)
Fyzikálního ústavu, Cukrovarnická 10, Praha 6.

Na programu je přednáška

Emergent Electromagnetism in Bilayer Graphene

kterou prosloví

Roland Winkler

Northern Illinois University a Argonne National Laboratory

Abstrakt

Recently, atomically flat layers of carbon known as graphene have raised significant interest due to many unusual properties. In single layers of graphene, the energy dispersion mimics that of massless Dirac electrons. Here we focus on bilayer graphene (BLG), where for typical Fermi wave vectors the behavior of electrons is that of pseudospin-carrying chiral fermions having a finite band mass but zero rest energy. Using group theory we have established a complete description of magneto-electric effects in BLG. We show that the type of electromagnetism experienced by electrons in BLG is even more counter-intuitive than the other currently known electronic features of these systems.

Work done in collaboration with U. Zülicke, Victoria University of Wellington, New Zealand.