School of Nano Science

IPM Condensed Matter & Statistical Physics Group

Weekly Seminar

Optical Studies of Dirac Materials

Invited speaker:

Dr. Mehdi Jadidi

Postdoctoral Research Scientist, Columbia University, USA

Abstract:

The fast-evolving field of condensed matter physics is witnessing a rapid development of a new class of materials, called Dirac materials. The low-energy electronic excitation in these semimetals behaves like massless Dirac particles (linear energy dispersion).

In this talk, I will discuss experimental optical studies of two prominent Dirac materials that have unique physical properties: graphene (two-dimensional) and tantalum arsenide (three-dimensional). While the former can be regarded as the father of materials with a symmetry-protected Dirac spectrum, the latter is an example of recently discovered topology-protected Dirac materials, also known as Weyl semimetals.

Wednesday, May 9, 2018 (19 Ordibehesht 1397), 14:00-15:00

Seminar Room (classroom A), Farmanieh Building, IPM