

Notre Dame **Science**
Department of Physics

STORIES OF LARGE SCALE GRAPHENE

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4:00 p.m. NSH 184

Graphene has rapidly risen in the past few years to become one of the most actively researched topics in condensed matter physics and nanoscience due to its numerous remarkable properties and potential applications. Perhaps the best known method to make graphene has been the “scotch tape” technique (to exfoliate graphite), used just a few years ago by graphene pioneers Geim and Novoselov (who were awarded the physics Nobel in 2010) to unlock the novel physics of graphene. This simple method, however, produces only very small graphene flakes (typically tens of microns) and therefore is not sufficient to fully realize the graphene’s scientific and technological potentials. Recently, chemical vapor deposition (CVD), a decades-old technique, has been revived with new inventions and is now capable to produce meter-scale graphene that is transferrable, flexible, transparent, highly-conducting, and one-atom thick. In this talk, I will discuss the development of such large-scale synthetic graphene, its physical properties, and the opportunities it brings for both fundamental studies and practical applications.

Condensed
Matter
Seminar

All interested
persons are
cordially
invited to
attend.