NRC主催／物理工学コース／談話会

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総合研究棟W棟 7階 W701 ゼミ室

Dr. Aaditya Manjanath

Materials Research Centre, Indian Institute of Science, Bangalore

Department of Physics, Yokohama National University

Engineering the Properties of Elemental 2D Materials using First-Principles Calculations

Graphene has been an extensively material owing to its unusual properties. However, the compatibility of graphene with the existing Si-based devices would require different fabrication infrastructure. On the other hand, silicene, a perfectly two-dimensional (2D) sheet of silicon atoms, could be a suitable candidate. The recent fabrication of a silicene-based field effect transistor (FET) with reasonable carrier mobilities provides one the impetus to further explore its properties & tunability for future applications. In this talk, I will present the strategies used to achieve this tunability in not only silicene, but also other sheets beyond graphene, using first-principles simulations.

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世話人：大野かおる（内4254）