

Physics Colloquium

Prof. Pratibha Dev
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Howard University

“Materials Properties from Quantum Mechanical Principles”

Condensed Matter Physics (CMP) is a prominent and a broad field of study in physics. CMP is both practical and fundamental at the same time. This talk will focus on Density Functional Theory – an immensely successful theory in CMP that uses quantum mechanical principles for determining properties of materials. In order to showcase the power of Density Functional Theory, I will discuss our recent results for novel 2D crystals, such as graphene and molybdenum ditelluride, which are of interest for the next-generation technologies.

Pratibha Dev is an Associate Professor of physics at the Howard University. In 2009, she obtained her Ph.D. in theoretical Condensed Matter Physics from the University at Buffalo, NY. Before joining Howard in 2015, she worked as EMPOWER fellow (Irish Research Council fellowship) in University College Dublin, Ireland (2010-2012) and as National Research Council fellow (2012-2015) in the Naval Research Laboratory in Washington DC. Her group uses atomistic-level simulations to determine properties of materials, covering a broad range of applications, spanning the fields of Condensed Matter Physics, Material Science and Quantum Chemistry. Her current research focus is on the fundamental physics of novel quantum materials and multi-ordered materials.

Thursday, October 21 via Zoom
On the regular schedule that starts at 4:25 PM
Meeting ID: 972 1274 7894
Passcode: 631869
(This is an online colloquium)