Other

Computation for Physics in Real Materials

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Applications Faculty Search Candidate

Johnston Hall 338
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Abstract:

This talk will present a general introduction of some of the modern topics of condensed matter physics, and why high-temperature superconductivity is particularly of interest. The talk will then cover the simple idea of density functional theory, one of the most powerful computational tools for real materials, and an overview of the general computational aspects of my research. Finally, a few current issues concerning the Fe-based superconductors will be addressed, to illustrate the important role of computational investigation of the rich physics in this new class of superconducting materials.

Speaker's Bio:

Dr. Wei Ku is a physicist in the Condensed Matter Physics & Materials Department at Brookhaven National Laboratory and is an adjunct Professor at the Stony Brook University. He received his Ph.D. from the University of Tennessee with the thesis “Electronic Excitations in Metals and Semiconductors: Ab Initio Studies of Realistic Many-Particle Systems."

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