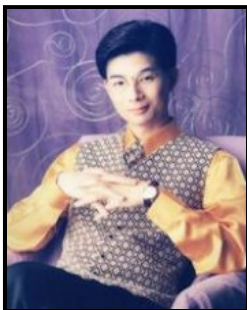


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Crazy Interdisciplinary Ideas Seminar Series

Wavelets for Everything**Wei Ku, Brookhaven National Laboratory**RSVP to leanne@cct.lsu.edu to reserve your pizza lunchJohnston Hall 338
August 14, 2012 - 11:30 pm**Abstract:**

In recent years, wavelets have become an increasingly popular basis for efficient representation of information, for example in data compression (used in JPEG2000). This talk aims to give a practical and intuitive introduction of wavelets as general sets of basis functions for average researchers. It will use the bi-orthogonal interpolating wavelets as a simple example to illustrate the definition of the wavelets, their mathematical properties and their high storage/processing efficiency. In particular, the talk will focus on the common features of basis functions in linear and non-linear algebra, relevant to modern numerical problems of quantum many-body physics and chemistry.

[Slides \(PDF\)](#)

Co-speaker TBA.

Speaker's Bio:

Dr. Wei Ku completed his Ph.D thesis on electronic excitations in University of Tennessee in 2000. After working as a postdoc in University of California at Davis for two years, he joined the staff scientists in Brookhaven in 2003. His current research interest includes theoretical/computational understanding of correlated behaviors and disorders in functional materials.

