

METAL-INSULATOR TRANSITIONS BEYOND THE MOTT-HUBBARD PARADIGM

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The Mott-Hubbard model, with a metal-insulator transition (MIT) driven purely by electronic correlations, is the enduring paradigm for strongly-correlated electron systems. Recently, 5d transition metal oxides (TMOs) have been identified as falling outside this paradigm, due to the presence of strong spin-orbit coupling and enhanced covalency. An overview will be presented of resonant X-ray scattering studies on a number of 5d TMOs revealing the exotic nature of the magnetism and MITs they display.

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2:00 PM

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SEMINAR ROOMS I-III

