

ZERNIKE INSTITUTE COLLOQUIUM

Thursday, June 11th, 2009

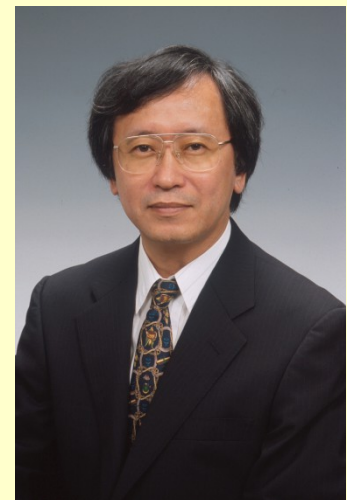
16:00h, Lecture Hall: 5111.0080

Coffee and cakes from 15:30h

Emergent magneto-electronic phenomena in correlated-electron materials

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Towards the invention of new functional electronic materials with high efficiency and low energy consumption, the *emergence* in materials science is the key concept, which focuses on the strong space-time correlations of interacting degrees of freedom. The correlated electron materials occasionally undergo a transition between the critically competing electronic phases. Such a phase competition produces surprising emergent phenomena, such as high-temperature superconductivity, colossal magneto-resistance, and Mott transitions. Here, I would overview the strategic exploration for gigantic magneto-electronic responses of a collective state of matter against minimal external stimuli.

