UCDAVIS PHYSICS

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Condensed Matter Seminar

Dr Chris Marianetti
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Title: Electronic Properties of Pu Via the Dynamical-Mean Field Theory.

Abstract: We present electronic structure calculations of δ Pu using density functional theory in conjunction with the dynamical mean-field theory (DMFT). The newly developed continuous time quantum Monte-Carlo technique is used to solve DMFT impurity problem. We predict and compare various properties to experimental measurements, such as the photoemission spectra, heat capacity, and magnetic susceptibility. The sensitivity of the results to the on-site exchange interaction and the number of electrons in the f-shell is explored.

Thursday November 29th, 2007
4:10 to 6PM - Rm 416 PHY/GEO