



center for nanophysics
and advanced materials

Condensed Matter Colloquium

Thursday, February 20, 2014

2 pm, Room 1201



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Quantum critical point and pseudogap in high-temperature superconducting YBCO cuprates

I will discuss our recent resonant ultrasound measurements on high-quality single crystal YBCO cuprates. We find a thermodynamic signature of a line of phase transitions $T^*(p)$ at the boundary of the pseudogap region of the doping-temperature phased diagram. In slightly-over-doped crystal the phase transition $T^*(p)$ is found below the superconducting transition, $T^* < T_c$. Further investigation of the termination point of $T^*(p)$ inside the superconducting dome will require Tl-cuprate compounds.

Refreshments at 1:30 pm in **Room 1305F**

