

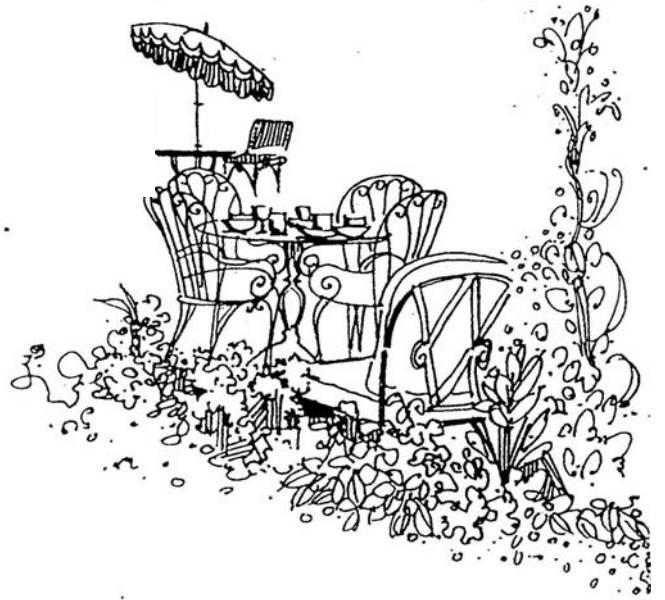
Chez Pierre

Presents ...

Tuesday, November 10, 2009

10:30am

MIT Room 4-331



Gregory S. Boebinger

National High Magnetic Field Laboratory

“The Queer Thermodynamic Properties of the High-Tc Cuprates”

In order of decreasing certainty, we can state the following: Specific heat offers a bulk thermodynamic probe of YBCO. Oxygen-17 NMR probes the local environment in the copper-oxygen plane of LSCO. Forty-five tesla magnetic fields suppress the superconducting state in the high-Tc cuprates. Quantum oscillations in YBCO are quantitatively consistent with the conventional (Lifshitz Kosevich) analysis of quasiparticles in a vanilla-flavored Fermi liquid. These quantum oscillations co-exist with the d-wave superconducting energy gap. And nano-scale phase separation. I'm Greg Boebinger. And I approve this message.