

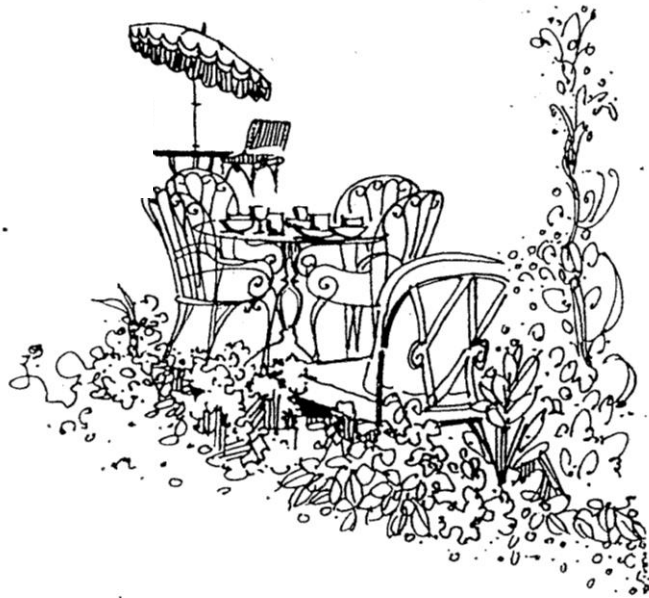
Chez Pierre

Presents ...

Monday, November 18, 2013

12:00pm

MIT Room 4-331



Louis Taillefer

Sherbrooke University

Canadian Institute for Advanced Research

“Why does T_c fall in underdoped cuprate superconductors ?”

It is now well established that the Fermi surface of hole-doped cuprates undergoes a transformation as doping is reduced below a critical value. It appears that the Fermi-surface reconstruction is due to the onset of charge order. I will show that the reconstruction coincides with the drop in T_c with underdoping. I will present the first direct measurements of the upper critical field H_{c2} in a cuprate superconductor. These reveal that the suppression of superconductivity proceeds in two steps, dictated by two quantum critical points. I will discuss the possible nature of these critical points.