Seminar

New insights into the phase diagram of the cuprates from transport and X-ray scattering studies of $HgBa_2CuO_{4+\delta}$

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I will review of our efforts to understand the properties of the simple tetragonal cuprate superconductor $HgBa_2CuO_{4+\delta}$ (Hg1201). In particular, I will discuss our recent charge transport [1,2] and synchrotron X-ray experiments [3] that reveal Fermi-liquid behavior and charge density wave correlations in the underdoped regime. These observations for Hg1201 have important implications for the phase diagram of the cuprates.

[1] N. % D U et al., Proc. Natl. Acad. Sci. USA 110, 12235 (2013)
[2] N. % D U et al., arXiv:1310.1414
[3] W. Tabis et al., unpublished

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Professional Preparation
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Selected Honors and Awards
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