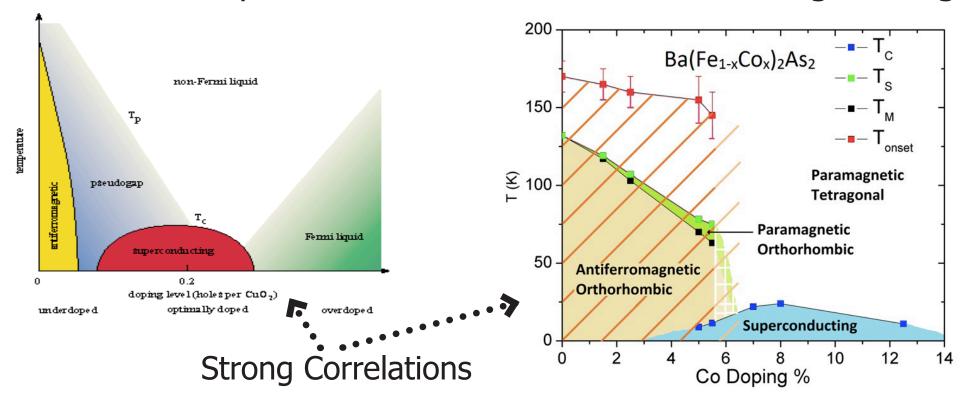
## Boston University Physics Colloquium

Joint Colloquium with Materials Science and Engineering





## High-Temperature Superconductivity: Taming Serendipity

At this centenary of the discovery of superconductivity, the design of new and more useful superconductors remains as enigmatic as ever. As high-density current carriers with little or no power loss, high-temperature superconductors offer unique solutions to fundamental grid challenges of the 21st century and hold great promise in addressing our global energy challenge in energy production, storage, and distribution. The recent discovery of a new class of high-temperature superconductors has made the community more enthusiastic than ever about finding new superconductors. Historically, these discoveries were almost completely guided by serendipity, and now, researchers in the field have grown into an enthusiastic global network to find a way, together, to predictively design new superconductors. I will share our general guidelines and hope to convey the renewed passion we share in this international pursuit. I will also share some of our advances in understanding the still-unknown mechanisms of high-temperature superconductivity by probing strong electronic correlations with point contact spectroscopy.

## Laura Greene

University of Illinois, Urbana-Champaign

November 1, 2011 (Tuesday) at 3:30pm (Refreshments at 3:15pm) SCI 109, Metcalf Science Center, Boston University

Call: Winna Somers (wsomers@bu.edu) (617) 353-9320

Host: David Bishop

