

CU Physics Department Colloquium

Monday, September 28, 2009 4:10 PM 428 Pupin Hall

"Back to the iron age: the physics of Fe-pnictides"

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I will share with the audience the excitement in condensed-matter community about the discovery of a new class of superconductors - Fe-pnictides, with T_c as high as 55 K. The phase diagram of Fe-pnictides is quite similar to that of high-temperature cuprate superconductors, and this fueled early speculations that the physics must be similar. However, Fe-pnictides differ from the cuprates in one important aspect - they do not become Mott insulators at low doping. I review recent experiments on three different families of Fe-pnictides and discuss the symmetry of the pairing gap and various theoretical scenarios for the pairing mechanism.

Hosted by Boris Altshuler

Meet the Speaker at 1:30 pm in 705 Pupin Hall

