

Abstract Submitted  
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**Kinetic Magnetism and Orbital Order in Iron Telluride** ARI TURNER, University of California, Berkeley, ASHVIN VISHWANATH, UCB — Iron Telluride (FeTe), related to the new Iron-pnictide high temperature superconductors, has an interesting low-temperature phase. This phase has an unusual magnetic order, as well as a structural distortion, and it is a conductor. This talk presents a model in which these facts are related to one another and to orbital ordering. Evidence for or against this hypothesis can be acquired from measurements of conductivity, ARPES, neutron scattering and evolution of the phase diagram on changing chemical composition.

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