

Theory Seminar

Monday, April 25, 2011 2:10 PM 831 Pupin Hall

HOLOGRAPHY AND QUANTUM MATTER

This talk will be an overview of recently developed holographic approaches to strongly interacting condensed matter systems. I will explain why certain theoretical and experimental challenges in unconventional materials may be amenable to a holographic approach. From a theoretical perspective I will argue that holography provides new computationally controlled entry points into non-Fermi liquid phases and the emergence of superconductivity from such phases. I will also argue that holography makes explicit the natural observables of strongly correlated media that suggest novel emphases for theoretical and experimental studies. I will not assume any previous knowledge of holography.

Sean Hartnoll, Stanford University

