



LABORATORY FOR ELEMENTARY-PARTICLE
PHYSICS (LEPP)

Theory Seminar

Jonathan Heckman
University of
Pennsylvania

**F-theory and Dark
Energy**



We discuss recent progress in understanding 4D vacua obtained from F-theory on Spin(7) backgrounds. Such compactifications provide a stringy mechanism to maintain a mild version of supersymmetry in which the ground state is annihilated by two supercharges, but all finite energy excitations experience broken supersymmetry. This leads to a split mass spectrum for superpartners, but with vanishing zero point energies. Based on work with C. Lawrie, L. Lin, and G. Zoccarato, hep-th/1811.01959.

Friday, Nov. 30, 2018

12:30pm

438 Physical Sciences Building