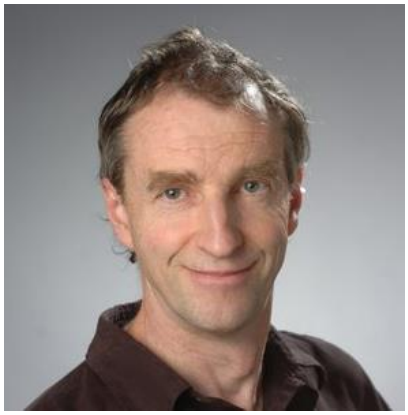
LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS (LEPP)

Theory Seminar

Simon Catterall

Syracuse



N=4 Super Yang-Mills on the Lattice

I will review developments which allow one to discretize a class of supersymmetric theory while preserving some supersymmetry at non-zero lattice spacing. This class includes N=4 Super Yang-Mills. The key idea is to discretize a topologically twisted formulation of the continuum theory which naturally possesses a scalar supercharge whose algebra can be preserved on the lattice. The availability of a lattice formulation of this theory allows one to investigate strong coupling phenomena away from the planar limit and to make contact with holographic predictions for gravitational systems.

Wednesday, March 4, 2020

2:00pm

401 Physical Sciences Building