

Clark's Talk Title/ Abstract

Frustrated Magnetism on the Stuffed Honeycomb Lattice

Abstract: Frustration plays an important role in promoting exotic phenomena. In this talk, we will consider the Heisenberg Hamiltonian on a lattice of three interpenetrating triangular lattices - the stuffed honeycomb lattice. This model interpolates between the triangular, honeycomb, and dice lattices and significantly expands the region of spin-liquid behavior as well as opens up a rich array of additional phases. We will discuss simulations which determine the phase diagram of this model for both the classical and quantum spins understanding how these two limits differ and complement each other.