

Spin Ice

Nils Bogdanoff

July 8, 2015

Abstract

Spin ice is a frustrated magnetic system with many remarkable properties. In this talk, I am going to illustrate analogies to water ice and explain the origin of residual Pauling entropy. I will present an effective Ising model for pyrochlore lattice structures and introduce example materials. Finally I am going to sketch some interesting phenomena and possible applications.