

Preliminaries

To completely understand, verify and most importantly appreciate the solutions of the models outlined here, some preliminaries must be talked about. The Ising Model is quite well researched because it is an analytically solved model where we observe a phase transition. Some of the models here are quite ridiculous to study from a physical standpoint, however they provide insights into the solutions of other models that are harder to solve. So we cherish and appreciate and sometimes obsess over the models we can solve analytically.

Phase Transitions and Critical points

The Scaling Hypothesis

Universality

Correlations