

The Influence of Confinement on Phase Transitions (Part 1)

Contribution ID: 265

Type: **not specified**

A family of critical models in d-dimensions

Monday, February 22, 2010 1:15 PM (1 hour)

It is well known that the order parameter for the 2dXY model is zero in the thermodynamic limit, yet it remains measurable even for macroscopic systems. Thus our ability to observe the KT transition via changes in the magnetization is a result of the “confinement” of the system to finite size. We have been working on a family of related models in one and three-dimensions (generalizable to d-dimensions) which exhibit behaviour closely analogous to the 2dXY model. We will consider the possibility that confinement in these models may lead to KT type, or possibly other novel, phase transitions.

Primary author: Dr BANKS, Simon (University College London)

Presenter: Dr BANKS, Simon (University College London)