

Homework assignment 8

Write a MC code to determine the critical temperature for a 3-D Ising model for $B=0$. Essentially, you are to write a MC code (or modified from the sample codes) to evaluate the (i) average magnetization m as a function of temperature T , (ii) specific heat capacity as a function of T .

In the second part, modify your code to calculate average magnetisation m as a function of B for three different temperatures, $0.1T_c$, $0.99T_c$ and $5 T_c$. Plot these curves on a same graphs to display the effect of temperature on the magnetisation curve.