

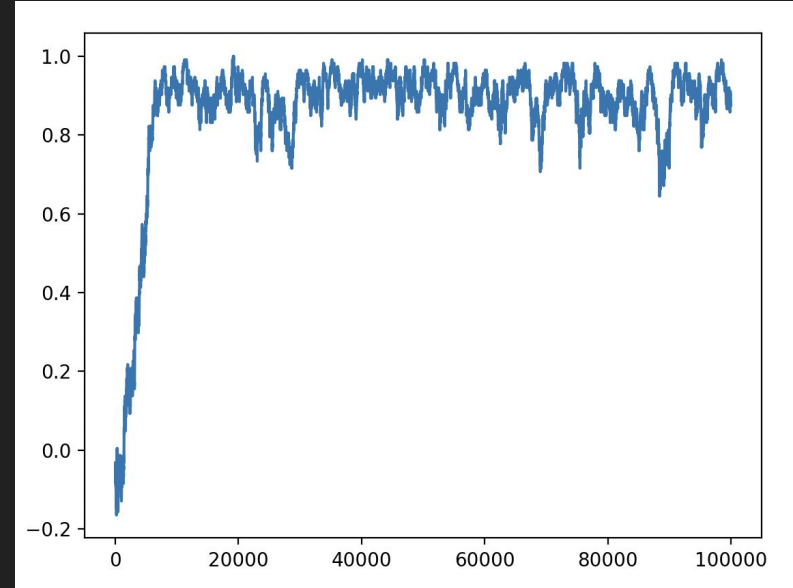
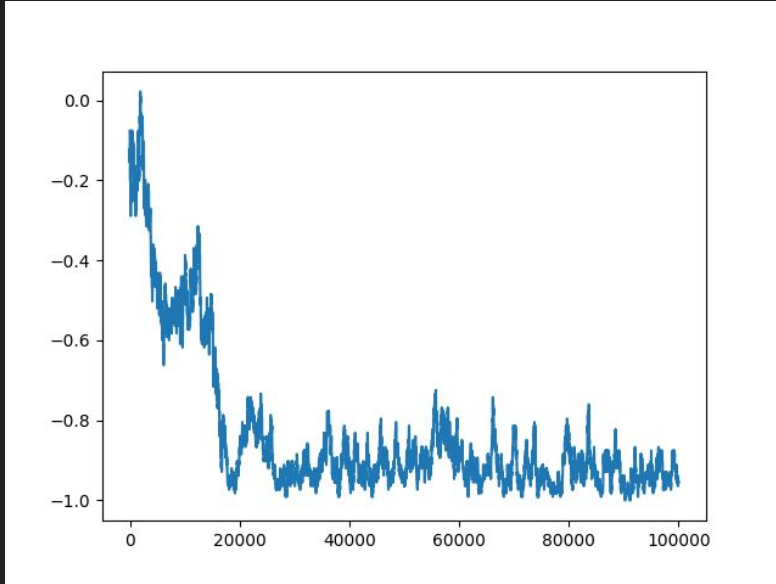
The Ising Model

Micah Baum, Parker Chandik, Kinan Rabbat, Sam Rayev

Implementation

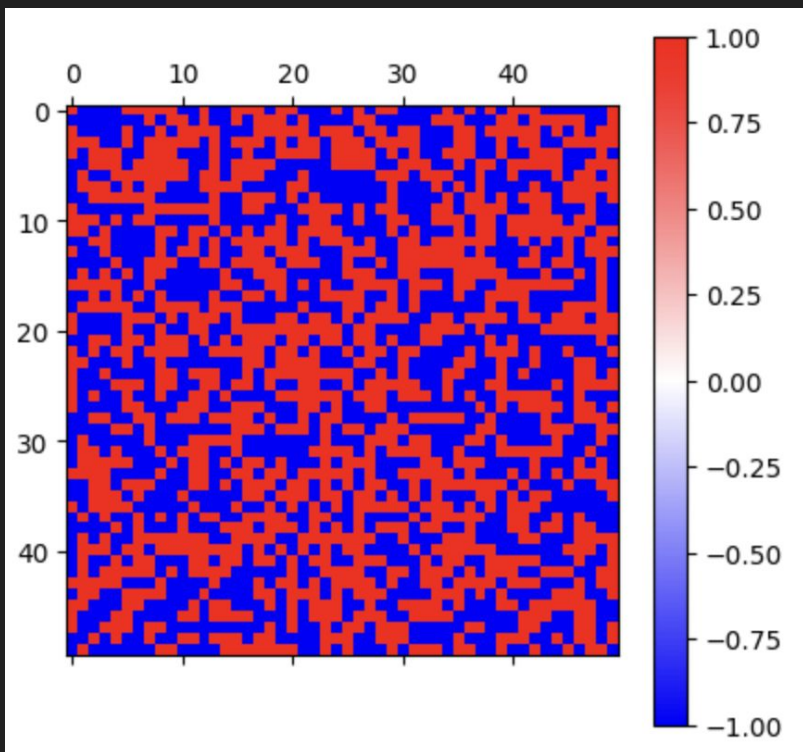
- Algorithm used: Metropolis
 - Wolff (clustering)
 - Wang Landau (modified Metropolis, non-Markovian)
- Approaches:
 - Adjacency Matrix
 - Adjacency List
- Goals:
 - Alternative structures
 - Multiple dimensionalities

Metropolis Magnetization Results

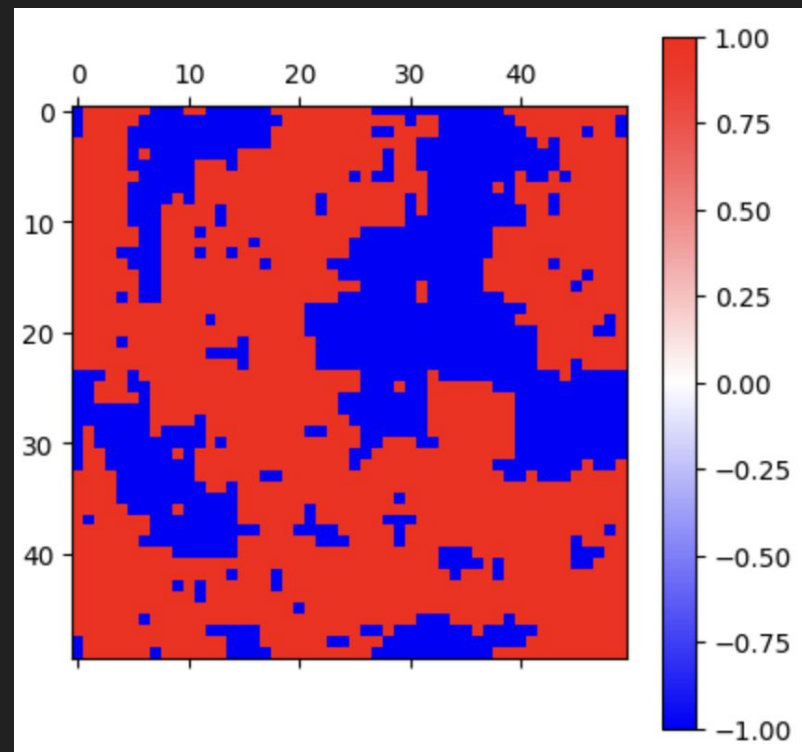


2D Square Lattice (15x15)

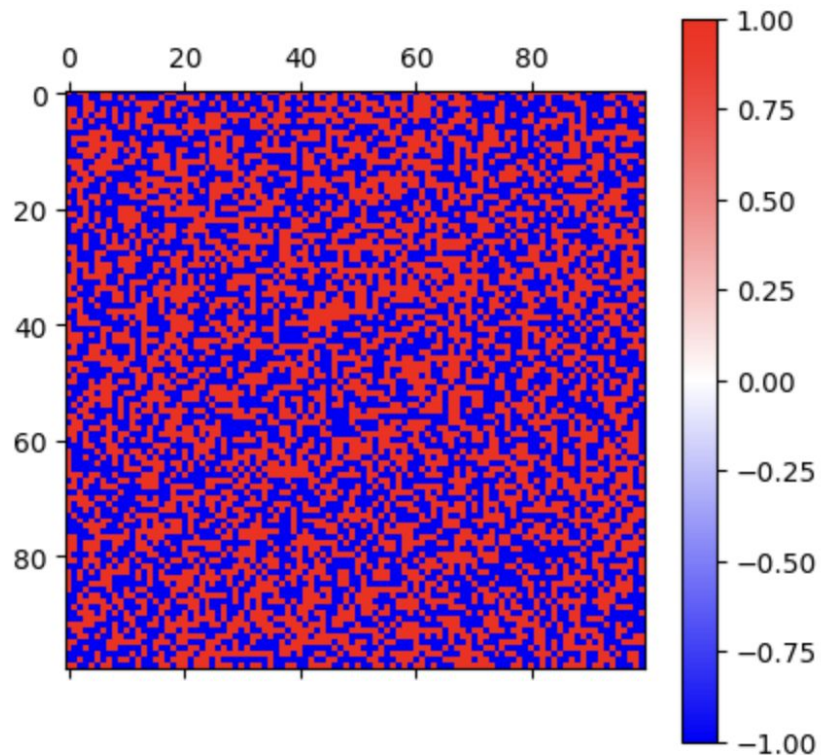
Initial Stage: 0 Steps



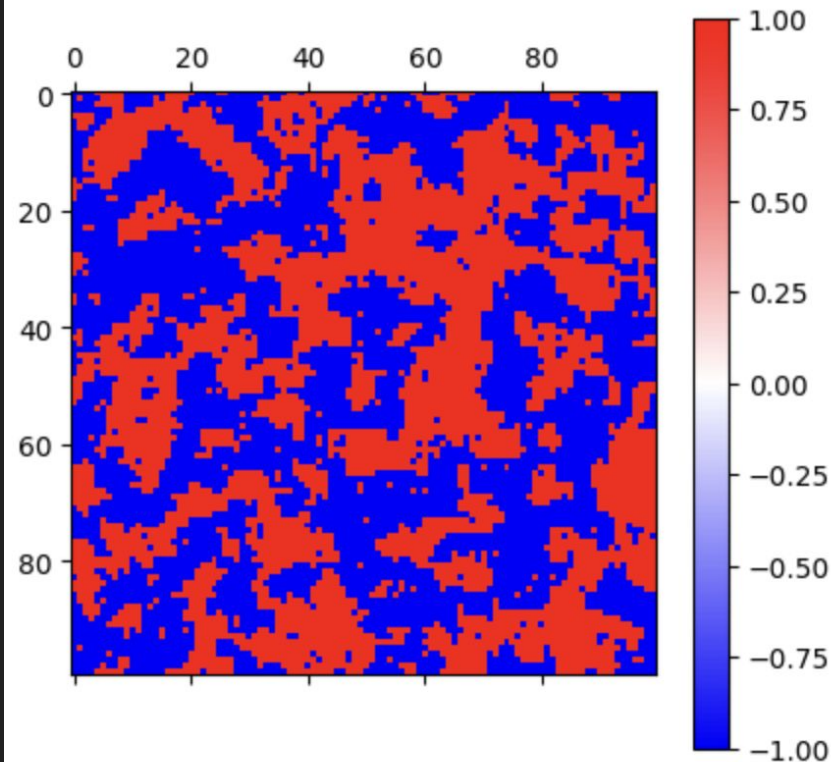
Final Stage: 99500 Steps



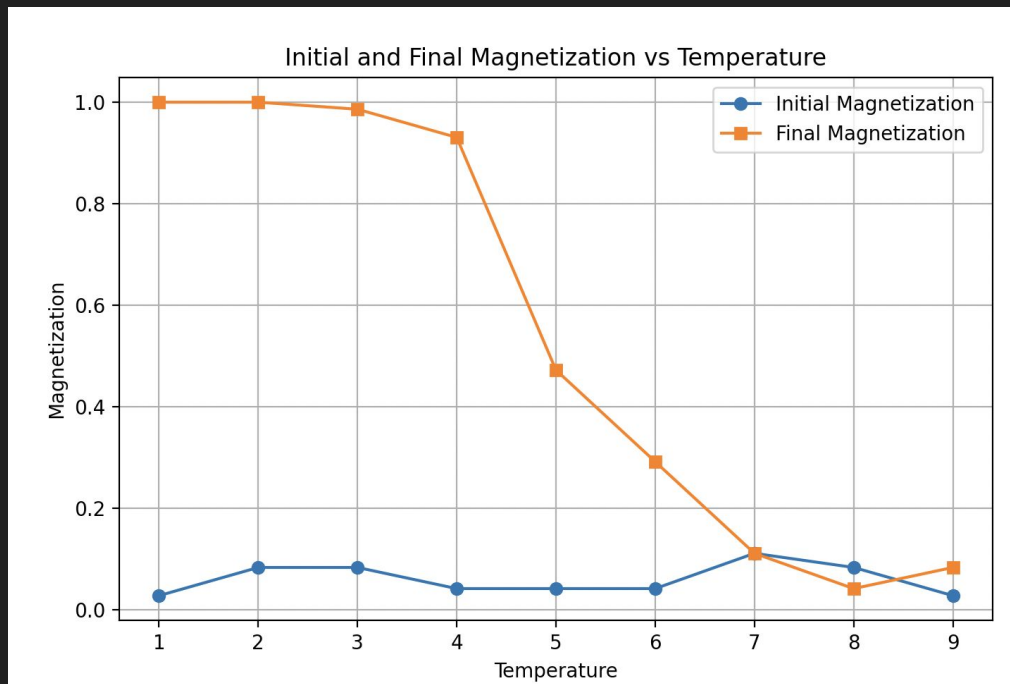
Initial Stage: 0 Steps



Final Stage: 99500 Steps



Metropolis Temperature Results



2D Square Lattice

Lattice Structure Variations

