

Physics 514 – Percolation Exercise

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Due Wednesday October 23

1 Percolation

- Implement the Hoshen Kopelman cluster labeling algorithm for site percolation on a 2d square lattice. Choose a realization of a site percolation problem with $p \sim 0.58$ on a large lattice and make a plot coloring the clusters.
- Implement the Monte Carlo algorithm for finding the critical percolation density on a square lattice, as described in the lecture notes. What are p_c and ν ? Identify clusters using the Hoshen Kopelman algorithm of the previous exercise.