

# Perculation Theory

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## **Abstract**

This project is dedicated to the study of percolation theory: the study of the formation of clusters in a graph. By taking advantage of that some variables scales as a power law near the phase transition, some of the critical exponents of percolation theory are estimated and it is found that the form of the graph does not depend on the form but the dimension.

# 1 Introduction

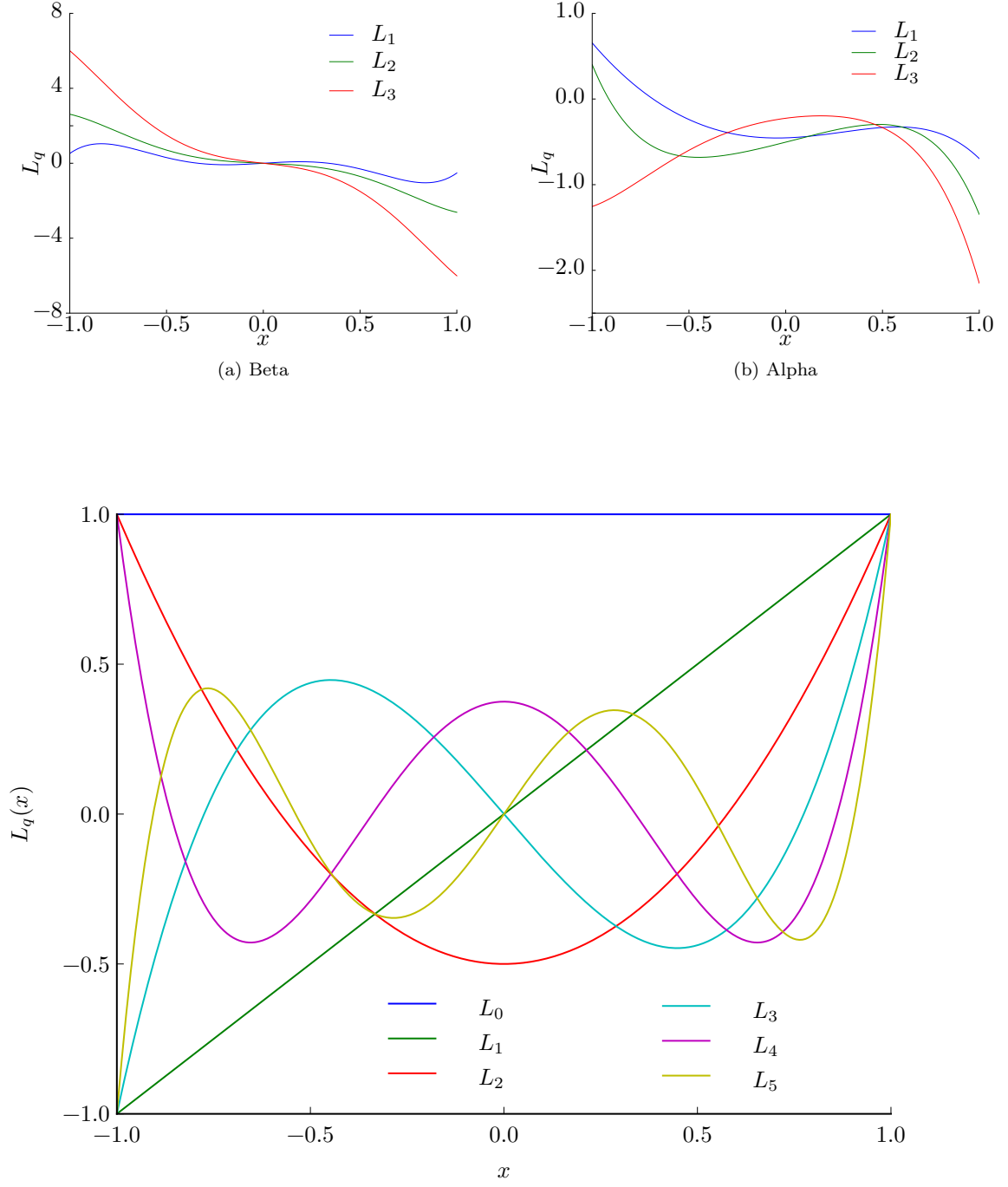


Figure 1: A square lattice having red sites and green bonds. This is a lattice with  $N = 64$  sites and  $M = 128$  bonds.

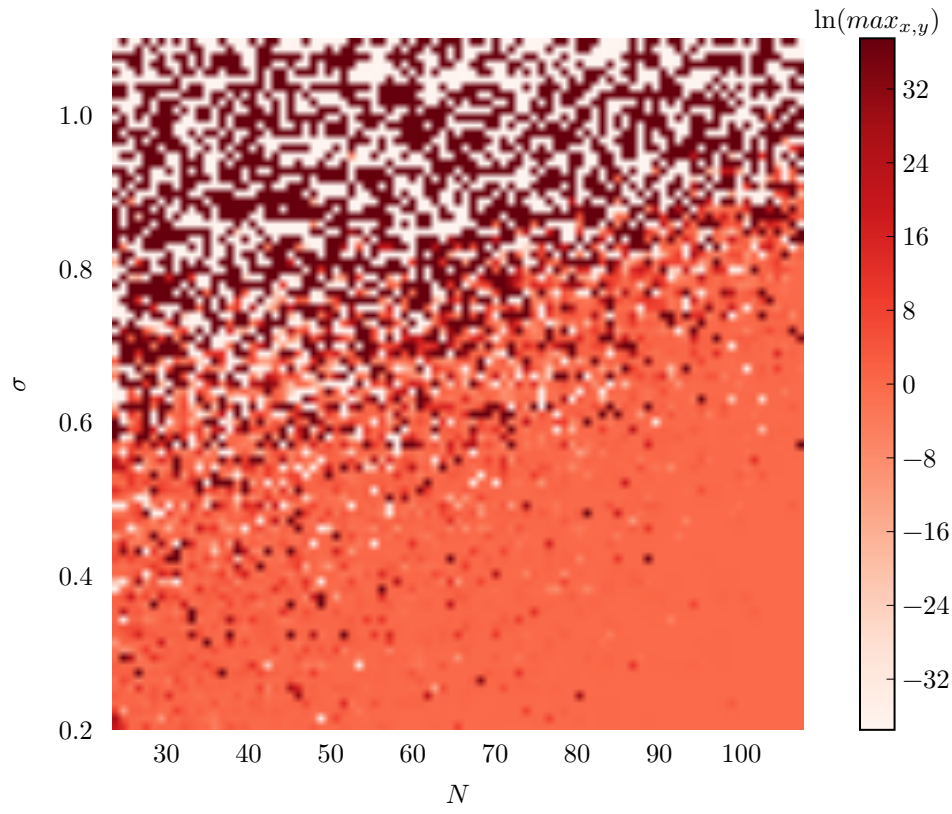


Figure 2: A square lattice having red sites and green bonds. This is a lattice with  $N = 64$  sites and  $M = 128$  bonds.