

Inference and learning in Ising models

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Ising models are a special class of graphical models, corresponding to pairwise binary Markov Random Fields. I will use them to explore and review a number of topics related to statistical inference and learning on graphs, namely:

- 1) Structural properties;
- 2) Inference algorithms;
- 3) Variational methods;
- 4) Structural learning;
- 5) Dynamics and convergence to equilibria.