Dynamics of Voting Models[1]

SIDNEY REDNER, Boston University

The voter model provides a paradigmatic description of consensus formation in a population of interacting agents. Each voter can be in one of two opinion states and continuously updates its opinion at a rate proportional to the fraction of neighbors of the opposite opinion. This model has been completely solved when the voters are situated on the nodes of a regular graph. This talk will discuss several extensions of the basic voter model: (i) on complex graphs, consensus is generally achieved quickly, (ii) multi-state and strategic voting leads opinion evolution with multiple time scales, (iii) heterogeneous voters can lead to ultra-slow evolution.