
DANIEL DE LA RIVA MASSAAD, UBC

Voter Model stability with respect to conservative noises

The notions of noise sensitivity and stability were recently extended for the voter model, a well-known and studied interactive particle system. In this model, vertices of a graph have opinions that are updated by uniformly selecting edges. We further extend stability results to a different class of perturbations when an exclusion process or Brownian motions are performed in the collection of edge selections. We prove stability of the consensus opinion provided that the noise is being run for a short amount of time, which depends on the underlying graph structure. This is done by analyzing the expected size of the pivotal set, which needs to be properly defined for each setting.