Nathan Hayford* (n.hayford6@gmail.com), CMC 342, 4202 E Fowler Ave, University of South Florida, Tampa, FL 33620, and Razvan Teodorescu. Defect formation probability in stochastic models of Ising type.

In a statistical mechanics model of locally-interacting spin variables, the most likely configuration can be easily obtained as the solution of an associated optimization problem. When used to describe certain physical systems, the problem of predicting the probability of configurations different from the most likely one is particularly relevant. We describe analytical methods for characterizing the formation of such "unlikely" configurations, along with applications to the theory of computation. (Received September 25, 2018)