Olcay Akman, Timothy Comar and Daniel Hrozencik* (dhro@att.net), Mathematics Department, HWH 332, Chicago State University, Chicago, IL 60628. Constructing Stable Stochastic Gene Regulatory Networks via Genetic Algorithms. Preliminary report.

Our goal is to construct a Boolean gene regulatory network model using genetic algorithms with minimum variation in state transition probabilities that control the changes between the attracting and non-attracting states. We also attempt to determine the stochastic variable types and boundaries rendering some states highly attracting. (Received September 09, 2014)