

# Maximization of Entropy of Finite Homogeneous Markov Chains with Convex Constraints

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## Abstract

Using the S.-C. Fang and J.R. Rajasekera results [4] for finite probability distributions, the theory and algorithm to solve the problem of maximal entropy of finite homogeneous Markov chains with convex constraints are presented. As particular cases we regain the following three situations: quadratic constraints, linear constraints and without explicit constraints.

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*Keywords:* maximum entropy, homogeneous Markov chain, geometric programming, controlled perturbation method.