Caliber approach for non-equilibrium systems with a small number of states JEREMY SCHMIT, KINGSHUK GHOSH, KEN DILL, University of California, San Francisco — We present a theory for the dynamics of systems with a small number of states based on E.T. Jaynes' principle of Maximum Caliber. We construct the full dynamical partition function using a transfer matrix formalism with the transition rates as input parameters. Using this partition function, we are able to calculate all moments of dynamical quantities, and thus are able to predict fluctuations around the average behavior. We compare our results to single molecule and microfluidics experiments and contrast our results to the predictions of Minimum Entropy Production.

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