

# 8th Nordic Workshop on Statistical Physics: Biological, Complex and Non-Equilibrium Systems

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## Bayesian analysis of DNA unfolding in nanochannels

*Wednesday, March 8, 2017 2:00 PM (45 minutes)*

When a piece of circular DNA breaks in a nanochannel it slowly unfolds to a linear conformation. I present a simple model for the process, where the unfolding is driven by an entropic force and opposed by hydrodynamic friction with the channel walls. The model is compared with experimental data using Bayesian inference. It is demonstrated that this provides a conceptually simple way of extracting numerical values for the force and friction from the experimental data.

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