

Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

Autocorrelation study for a coarse-grained polymer model¹ KAI QI, MICHAEL BACHMANN, The Univ of Georgia — By means of Metropolis Monte Carlo simulations of a coarse-grained model for flexible polymers, we investigate how the integrated autocorrelation times of different energetic and structural quantities depend on the temperature. We show that, due to critical slowing down, an extremal autocorrelation time can also be considered as an indicator for the collapse transition that helps to locate the transition point. This is particularly useful for finite systems, where response quantities do not necessarily exhibit clear indications for pronounced thermal activity.

¹Research supported by NSF

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Date submitted: 11 Nov 2013

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