

Abstract Submitted
for the MAR16 Meeting of
The American Physical Society

Deep image analysis of entangled ring-shaped DNA HYEONGJU KIM, AH-YOUNG JEE, STEVE GRANICK, Institute for Basic Science — Ring-shaped DNA entangled in aqueous actin networks and observed by super-resolution microscopy (STED; stimulated emission depletion) offers rich data for comparison with unresolved questions of polymer physics. Using home-written software, we calculated not only the center of mass (CoM) and CoM trajectories of hundreds of molecules, but also analyzed conformation dynamics with statistical analysis including wavelet transformation and a correlation matrix approach. The analysis reveals some surprising aspects unanticipated by classical theories.

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Date submitted: 05 Nov 2015

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