MAR15-2014-020355

Abstract for an Invited Paper for the MAR15 Meeting of the American Physical Society

Hydrodynamics

ROBIJN BRUINSMA, Department of Physics and Astronomy, University of California, Los Angeles

The talk will present a hydrodynamic description of large-scale cooperative movement of chromatin that have been observed by particle tracking methods. The results of the hydrodynamic description will be compared with the tracking data. Passive thermal fluctuations and active "scalar" events - associated with local chromatin condensation - are found to dominate cooperative motion at shorter length scales while active "vector events" - associated with chromatin remodeling - driving transverse hydrodynamic modes dominate at large length scales.