
Colloquium

Chromatin as Active Matter

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I will describe recent theoretical work on models for the organization of the mammalian cell nucleus. These models describe chromatin (DNA, histones and other DNA binding and packaging proteins in the nucleus) as active matter, a term which emphasizes the central role of non-equilibrium processes. Our work addresses several long-standing problems in nuclear architecture, among them the origins of non-random positioning patterns of chromosomes, the modulation of such positioning through interactions with the nuclear envelope and the large-scale territorial organization of chromosomes. We make a number of testable predictions and our numerical results are in reasonable agreement with experiments.

Thursday, Apr 17th 2014

11:30 AM (Tea/Coffee at 11:15 AM)

Seminar Hall, TCIS