Inhomogeneous polymers interact with surfaces

Chien-Hao Huang
National Center for Theoretical Sciences

Abstract

We first review the basic renewal theory, then apply it to homogeneous pinning models. The model exhibits a phase transition, a localization/delocalization transition. Latter, we will introduce inhomogeneous models in which the polymer has a random pinning effect because of the impurity of the surface. Sophisticated polymer chains, such as proteins, have the stiffness when they stretch chains. Such case will be discussed.