



سمینار هفتگی گروه ماده چگال نرم

Efficient chain moves for Monte Carlo simulations of a wormlike DNA model

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This presentation is mainly about efficient Monte Carlo moves that Zhirong Liu and Hue Sun Chan have presented in an article with this title: “Efficient chain moves for Monte Carlo simulations of a wormlike DNA model: Excluded volume, supercoils, site juxtapositions, knots, and comparisons with random-flight and lattice models” published in The journal of chemical physics. In this article Liu and Chan have developed two classes of moves. One class of moves, as they have mentioned in the abstract: “can be viewed as a generalization, to the continuum, of the Madras-Orlitsky-Shepp algorithm for cubic lattices.” And another class of moves is length changing move which according to the abstract: “allows interconversions between chains with different lengths by adding or subtracting two beads (monomer units) to or from the chain.” Also they have used a wormlike model in which excluded volume is accounted for by a bond-bond repulsion term.

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مکان: آمفی تئاتر دانشکده فیزیک

قطب ماده چگال و سیستمهای پیچیده