



سمینار هفتگی گروه ماده چگال نرم

Sequence Dependent Elasticity of DNA

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In this talk I review the model and results of a research which has been presented in a PhD thesis with the same title by Nils Backer. The work has done in Technical University of Dresden and Max-Planck institute for the Physics of Complex Systems in Dresden (<http://hsss.slub-dresden.de/documents/1186511923001-7175/1186511923001-7175.pdf>). In this work a Sequence-dependent elasticity model of DNA in base-pairs level is introduced and according to the thesis abstract: "a new hybrid parameter set is proposed which greatly reduces prediction errors. Using this parametrization, a way to relate the model to biochemical experiments is provided by the indirect readout mechanism, where DNA elasticity determines protein-DNA complexation affinities."

It is expected that the model be useful in multiscale DNA simulations.

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مکان: آمفی تئاتر دانشکده فیزیک

قطب ماده چگال و سیستمهای پیچیده