

Abstract Submitted
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DNA fluctuations under nanoconfinement JUNHAN PAN, ROBERT RIEHN, North Carolina State University — DNA stretching in quasi one-dimensional nanochannels is an emerging technique for the analysis of genomic-sized DNA molecules. For formulating an optimal measurement strategy, the thermal fluctuations of confined molecules are of crucial importance. While previous measurements have concentrated only on the end-to-end length, we present here an experimental study of density fluctuations within the molecule, and find a good agreement with a model similar to a oscillator chain.

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