

Abstract *locally globally*

Writhing Geometry of Stiff Polymers and Scattered Light

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1 Introduction

\mathbb{C}^3

τ non-smooth statistical mechanics

2 Intrinsic Geometry a Line

$\mathbf{t}(s)\mathcal{S}_2\mathbf{n}'(0)\mathbf{t}(0)\mathbf{t}(s)\mathcal{S}_2\mathbf{n}'(s)\mathbf{n}'(0)\mathbf{b}'\mathbf{t}\mathbf{n}'\mathbf{t}(s)$
 $???$ writhing \mathcal{W}_r $??\mathbf{E}\mathbf{E}\mathbf{t}(s)\mathbf{t}(s)\mathbf{t}(s)\mathcal{S}_2\mathbf{t}(s)1/8\pi/4\mathbf{E}$
 $\mathbf{t}(s)\tau\mathcal{W}_r$

3 Statistical mechanics of bending of stiff polymers

$\mathcal{K}\ell_p = \mathcal{K}/k_B T T \ell_p$ persistence length $dl_p/dl_p \sim 50nm l_p/d \sim 30l_p/d2000$

$????$

$\nabla^2 P(\mathbf{t},s)\mathbf{t}s\mathbf{t}1/(2\ell_p)Q(\mathbf{r},\mathbf{t},s)\mathbf{t}(s)$

i.e. \mathbf{t}
 $??$ orientational diffusion proces $\mathbf{t}(s)\mathbf{n}'$
 $\mathbf{t}(s)??\Phi L$

$?\bmod 4\pi\tilde{a}\tilde{a}$

4 Application to DNA

$????$



E_B