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**Scaling properties of the free energy of a wormlike chain in confinement** JEFF Z.Y. CHEN, University of Waterloo — We discuss the free energy and conformational properties of a wormlike chain in spherical, cylindrical, and slit confinements. We show that in the weak-confinement limit, the wormlike chain model exactly reproduces the confinement properties of a Gaussian chain. In such a case the confinement entropy dominates the free energy. In the strong-confinement limit, the free energy is dominated by the bending energy of the chain, or the Odijk scaling behavior. The crossover region between the weak and strong asymptotic limits is examined.

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