

Abstract Submitted
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The effective bending rigidity of a fluctuating ribbon¹ DUANDUAN WAN, MARK BOWICK, Department of Physics, Syracuse University — We study the vibration of a two-dimensional ribbon using molecular dynamics. We find the effective bending rigidity tends to a constant which can be orders of magnitude larger than the bare bending rigidity in the limit that the bare bending rigidity goes to zero, consistent with theoretical expectations. Experimental realizations include graphene, molybdenum disulfide and some doped membranes.

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Duanduan Wan
Department of Physics, Syracuse University

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