

Abstract Submitted  
for the MAR11 Meeting of  
The American Physical Society

**Stability of a drop-strip system** MARCO RIVETTI, SÉBASTIEN NEUKIRCH, ARNAUD ANTKOWIAK, Institut d'Alembert, Paris, UPMC & CNRS — When a flexible material is placed in contact with a liquid-air interface, capillary forces may cause deformations and large displacements in the structure. Such kind of elastocapillary interactions play a crucial role in many technological applications, like deflection of nanotubes carpets or microscale self-assembly. We study the problem of a drop deposited on a thin and narrow strip. Using a simplified 2D model including surface tension interactions, elastic and gravitational energies, we are able to predict the shape of the equilibrium solutions, as well as the appearance of instability in the system. Theoretical predictions are confronted to experiments and a good agreement is obtained.

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Date submitted: 30 Nov 2010

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