

Abstract Submitted  
for the MAR12 Meeting of  
The American Physical Society

**Stamping and wrinkling of elastic plates** JEREMY HURE, JOSE BICO, BENOIT ROMAN, PMMH - ESPCI ParisTech — In classical Euler buckling a beam is found to buckle with the lowest mode as a compressive strain is applied. Higher modes are however observed if the amplitude of the out-of-plane displacement is bounded by geometrical constraints. What is the limit when the maximum amplitude prescribed is decreased to zero? We show that the wavelength tends towards a finite value dictated by the thickness of the beam. This one-dimensional model is used to describe the compression of a circular elastic plate into an hemispherical mold.

Jeremy Hure  
PMMH - ESPCI ParisTech

Date submitted: 08 Nov 2011

Electronic form version 1.4