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 am-
plitude 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.

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