



UNIVERSITÀ DEGLI STUDI  
DI TRENTO

Dipartimento di Ingegneria Civile,  
Ambientale e Meccanica



Instabilities and nonlocal  
multiscale modelling of  
materials

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European Research Council  
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## AVVISO DI SEMINARIO

Si comunica che **giovedì 11 dicembre 2014 a partire dalle ore 10.15**  
si terrà presso l'aula R2 (via Mesiano 77) il seguente seminario

### Snap-Through Instability induced by a Water Drop

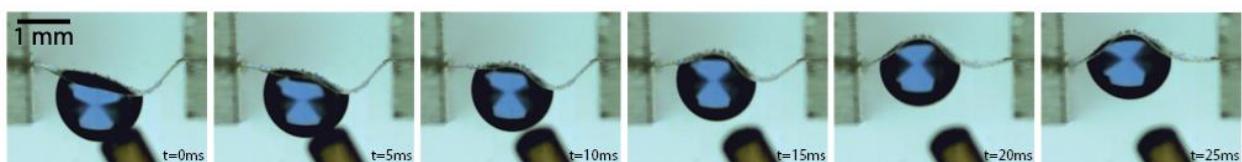
**Prof. Sébastien Neukirch**

*d'Alembert Institute for Mechanics*

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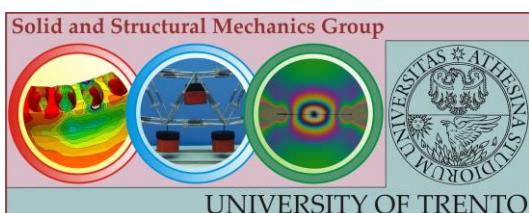
Capillary forces are often too weak to deform a structure, but recent studies have shown that they can dominate elasticity at small scales, if the material is sufficiently soft. A water droplet can interact with a thin elastic sheet or beam in a spectacular way, inducing for instance wrinkling, static or dynamic folding, aggregation of fibers, or buckling.

The snap-through instability, which is present in a wide range of systems ranging from carnivorous plants to MEMS, is a well-known phenomenon in solid mechanics: when a buckled elastic beam is subjected to a transverse force, above a critical load value the buckling mode is switched. Here, we revisit this phenomenon by studying snap-through under capillary forces.



Tutti gli interessati sono invitati a partecipare.

Il seminario è organizzato dal gruppo di Scienza delle Costruzioni  
(D. Bigoni, L. Deseri, N. Pugno, M. Gei, A. Piccolroaz, F. Dal Corso, M.F. Pantano, R. Springhetti)



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