



UNIVERSITÀ DEGLI STUDI  
DI TRENTO

Dipartimento di Ingegneria Civile,  
Ambientale e Meccanica



Instabilities and nonlocal  
multiscale modelling of  
materials

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## AVVISO DI CORSO

Si comunica che **martedì 08 luglio a partire dalle ore 16.00**  
si terrà presso la **Sala Conferenze R2** (via Mesiano 77) il seguente seminario

### Morphing Tensegrity Structures

**Prof. Andrea Micheletti**

*Università di Roma TorVergata*

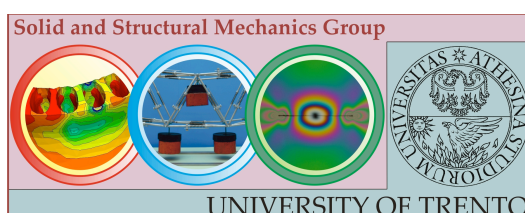
Tensegrity structures are prestressed pin-connected frameworks composed by cables and bars, with cables forming a connected set (tensile-integrity), and bars isolated from each other (floating-compression). Due to their peculiar features, tensegrity systems are suitable for shape changing structures, such as deployable, adaptable and smart systems, with fields of application ranging from aerospace engineering to robotics.

In this talk, after a short introduction on relevant concepts and principles, two recent studies will be reviewed: the first one about an in-orbit deployable antenna; the second one about a system displaying two different types of bistable behavior.

Andrea Micheletti is a Researcher in the Department of Civil Engineering and Computer Science Engineering at University of Rome Tor Vergata. His research focused most on tensegrity systems, structures with fascinating architectural, mathematical and engineering properties. Among the projects he worked on, there are the designs of two landscape structures, a 50 meters diameter tensegrity arch and a medium span tensegrity footbridge. He also investigated the application of these systems as deployable and variable-geometry structures. Recently, he worked on a project of the European Space Agency for designing and prototyping a new large tensegrity antenna to be deployed in-orbit. In general, he is interested in problems of modeling, simulation and design in mechanics and physics.

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, F. Dal Corso, A. Piccolroaz, R. Springhetti)



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