

SEMINAR

NANOMECHANICS OF 2D MATERIALS AND 3D COMPOSITE

- **Speaker :** Nicola M. Pugno
Department of Civil, Environmental and Mechanical Engineering
University of Trento
- **Venue :** KI building Lecture room B (3rd Floor)
- **Date :** July 27th 2016 (Wed.) 1:30p.m.~2:30p.m.

The rapid development of synthesis and characterization of nanomaterials, such as graphene or other 2D materials, and of related or bio-inspired 3D nanocomposites as well as unprecedented computational power and theoretical advances have brought forth a new era of materials research in which experiments, simulation and modeling are performed side by side. Accordingly, this talk aims to present an overview of our recent studies of the nanomechanics of 2D materials (e.g. deformation, fracture, friction, adhesion, etc.) and 3D composites (e.g. bio-inspired, hierarchical, super-tough, super-strong, bionic, self-healing, self-cleaning, etc.).

Bio

Master degrees in Engineering and Physics, PhD degrees in Engineering and Biology; Full Professor of Solids and Structural Mechanics at the University of Trento and of Materials Science at the Queen Mary University of London, Scientific responsible of graphene nanocomposites within the Graphene Flagship at the Fondazione Bruno Kessler and 1/7 member of the scientific and technical committee of the Italian Space Agency; about 300 papers published in international (including Nature) journals; plenary lecturer in several international conferences (including Falling Walls), long term collaboration with MIT and Cambridge University. Academic Editor of PlosOne and of Scientific Reports among others and Editor-in-Chief of Frontiers in Materials - Mechanics. Winner of 4 ERC (European Research Council) Grants (1 StG and 3 PoC).