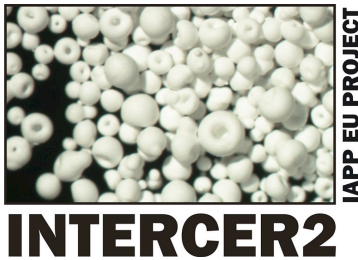




UNIVERSITÀ DEGLI STUDI
DI TRENTO

Dipartimento di Ingegneria Civile,
Ambientale e Meccanica



Modelling and optimal design
of ceramic structures
with defects and imperfect
interfaces
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AVVISO DI SEMINARIO

Si comunica che **mercoledì 23 luglio alle ore 15.15** presso l'aula **H1** (via Mesiano 77) si terrà il seguente seminario:

Dynamic response of structured solids: dynamic anisotropy and localisation

Prof.ssa N. V. Movchan

University of Liverpool

In this talk we present analytical models that describe wave propagation in structured elastic solids. A special attention is given to the dynamic anisotropy, which is linked to the dispersion of elastic waves in periodic systems, and to localised dynamic modes.

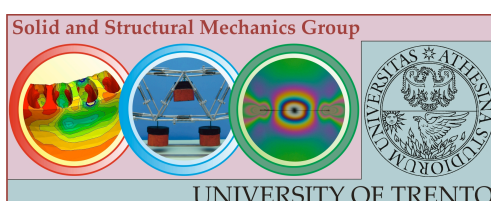
We first consider Bloch waves in periodic elastic lattices. The emphasis here is on a special class of star-shaped waveforms at the frequencies corresponding to the saddle points on the dispersion surfaces; these are connected with the regimes that exhibit negative refraction in transmission problems.

We next show that a relatively simple analysis of dispersion properties of Bloch waves in periodic structures of infinite extent provides an invaluable insight into the dynamic response of highly sophisticated finite structures such as long bridges and tall buildings.

We then analyse localisation of flexural waves in constrained thin elastic plates. A special resonance transmission regime, Elasto-Dynamically Inhibited Transmission (EDIT), is discussed in detail.

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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