



UNIVERSITÀ DEGLI STUDI
DI TRENTO

Dipartimento di Ingegneria Civile,
Ambientale e Meccanica

AVVISO DI SEMINARIO

Si comunica che **venerdì 24 novembre 2017 a partire dalle ore 10.30**
si terrà presso l'aula **R2** (via Mesiano 77) il seguente seminario

Novel Hybrid Highly Performing Materials for Applications in Extreme Environments

Frederic Monteverde

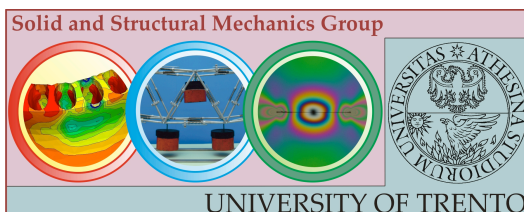
ISTEC-CNR Faenza

Materials for aeronautical and space applications largely involve Ceramic Matrix Composites, CMCs, made of carbon, C, and silicon carbide, SiC. However, Cf/C composites suffer from poor erosion resistance while silicon-based ceramics, SiCf/SiC or Cf/SiC composites, may undergo extensive ablation due to the formation and volatilization of silica. In recent years, Ultra-High Temperature Ceramics, UHTCs, have shown outstanding erosion resistance at temperatures up to 2200 K, or even higher, but they still cannot resist to thermal shocks and damage. Therefore, there is an increasing demand for advanced materials with temperature capability in highly corrosive environments to enable space vehicles to resist several launches and re-entries.

To overcome present technological limits, novel materials must be conceived. The EU-funded project C3HARME aims at combining the best features of CMCs and UHTCs to design, develop, manufacture and test a new class of Ultra-High Temperature Ceramic Matrix Composite (UHTCMCs) with self-healing capabilities.

Tutti gli interessati sono invitati a partecipare.

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



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