

IWCMM29

29th International Workshop on Computational Mechanics of Materials

Dubrovnik, September 15-18, 2019

Symposium Title:

Functional and architected materials

Symposium Chair(s):

Stephan Rudykh

Symposium Description:

Investigation of functional and architecture materials has rapidly advanced in the last decade. The multi-physics nature of functional materials poses multiple challenges in modelling, simulation and designing architected materials with new functionalities.

Recent advances in material manufacturing, such as 3D printing and additive manufacturing, open an exciting opportunity to realize the pre-designed materials with desirable functionalities. This session aims to bring together experts in modelling, simulation, manufacturing and experimental investigation in the field of functional and architected materials to present and discuss recent advances.

Topics of particular interest include (but are not limited to)

- 3D printing of architecture materials and composites
- Shape-memory and light-sensitive materials, Electro- and magneto-active elastomers
- Acoustic metamaterials
- Instabilities and failure
- bio-inspired materials