

ADVANCED COMPUTATIONAL MODELLING OF MASONRY STRUCTURES

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ABSTRACT

Historical buildings of the international architectural heritage are traditionally made of masonry. The study of the mechanical behavior of these structures under static and seismic loads is necessary to evaluate their vulnerability and to preserve them over the time by means of strengthening systems. In the last few decades, the scientific community has formulated different approaches to predict the static and seismic response of masonry panels and vaulted structures, as well as to design optimal reinforcement interventions.

The focus of the present minisymposium is on the computational modelling of strengthened and unstrengthened masonry structures, and will offer an opportunity for the presentation and discussion on the recent advances in this field.

The minisymposium intends to cover several topics, which include but are not limited to:

- Novel approaches to static and seismic assessment of masonry constructions;
- Constitutive models for masonry materials;
- Monitoring of historical masonry constructions;
- Homogenization techniques;
- New methods for optimal design of strengthening interventions.

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