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Special Session: CC-S7

Structural behaviour of masonry arches and vaults: numerical, analytical and experimental insight

Organisers:

Danila Aita, danila.aita@polimi.it, Department of Civil and Environmental Engineering (DICA), Politecnico di Milano, Milano, Italy

Katalin Bagi, bagi.katalin@emk.bme.hu, Department of Structural Mechanics, Budapest University of Technology and Economics, Budapest, Hungary

Matteo Bruggi, matteo.bruggi@polimi.it, Department of Civil and Environmental Engineering (DICA), Politecnico di Milano, Milano, Italy

Gabriele Milani, gabriele.milani@polimi.it, Department of Architecture, Built environment and Construction engineering (ABC), Politecnico di Milano, Milano, Italy

Alberto Taliercio, alberto.taliercio@polimi.it, Department of Civil and Environmental Engineering (DICA), Politecnico di Milano, Milano, Italy

Aims and Scope:

The structural response of masonry arches and vaulted structures represents a topical issue in modern structural mechanics research. The variety of methods available in the literature, namely numerical models, analytical investigations, and experimentation, requires mutual validation; at the same time, the need for a coherent delimitation of the field of investigation relevant to each approach is becoming more and more important. This Special Session aims at creating an opportunity for discussion on the main approaches adopted in structural mechanics to analyse masonry vaulted structures. Among the others, contributions dealing with limit or non-linear static analysis, based on both Finite and Distinct Elements, where either the material is assumed to be homogeneous or mortar and blocks are considered separately, are particularly welcome. Experimental works and combined numerical/experimental approaches are considered central to the Special Session as well.