

MINISYMPOSIUM ON MASONRY CONSTRUCTIONS

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Key words: Masonry, stone, mortar, earth constructions, mechanical modelling, non-destructive techniques and laboratory testing.

ABSTRACT

This minisymposium aims to provide an outstanding opportunity for academic and scientists' communities and all experts alike to address technical advances and challenges in masonry analysis. Masonry structures, mainly existing constructions, constitute an important part of the international heritage such as buildings, bridges, tunnels, etc. Their degradation and aging raise many issues about preservation prediction methods and techniques. In order to provide reliable solutions, it is important to understand their mechanical, thermal and hydric behavior and couplings. However, the masonry complexity from the point of view of material and structure requires various analysis approaches, in particular experimental, numerical or theoretical methods.

The proposed topics cover a wide range of scales from material to structure, while integrating architectural and construction aspects: Arches, Vaults, Domes, Walls, Bridges, Earth constructions... The used materials can be issued from natural origin (stones, earth,..), industrial material (cooked clay bricks..) and is also an innovative material used for the repairing and rehabilitation of these constructions.

Minisymposium Topics:

Theory and practice of conservation; Inspection methods; Non-destructive techniques and laboratory testing; Numerical modeling and structural analysis; Management of heritage structures and conservation strategies; Structural health monitoring; Repair and strengthening strategies and techniques; Vernacular constructions; Architectural heritage; Seismic analysis and retrofit; Vulnerability and risk analysis; Durability and sustainability.