Session ID: ASR-5

Title
MASONRY RETROFITTING WITH ANCHORED SYSTEMS

Convenors
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Description
Past and recent seismic events have demonstrated that unreinforced masonry (URM) buildings are extremely vulnerable to horizontal actions. As a consequence, several retrofitting techniques have been developed to cover multiple needs associated with URM construction, such as: (i) the type of masonry material (stones, bricks, mortars), (ii) the desired design performance level and improvement, (iii) the compatibility of in-situ and added (new) materials, (iv) the reversibility of the intervention technique (especially in the case of heritage structures), (v) the cost of the intervention, (vi) the type of intervention technique, etc.

Despite the presence of multiple intervention techniques, anchorage to the existing masonry is typically always required and can be achieved using different fastening solutions (e.g., adhesive and rebars, FRP bars, twisted bars, etc.). This technical session focuses (but is not limited to) on the retrofitting techniques that require the use of fastening systems, considering both their efficiency and range of applicability, in case of uncracked and cracked masonry conditions. This latter aspect is crucial in masonry subjected to seismic loading, where the fastening could be a crack inducer or located in damaged zones during the seismic event.

Invited Speakers
G. Campione [4], T. D'Antino [1], D. D'Ayala [5], P. Foraboschi [6], L. La Mendola [4], M. Orlando [7], E. Vintzileou [2]

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