

**Session ID:** CHH-2

**Title**

HISTORICAL MASONRY STRUCTURES: NEW EXPERIMENTAL RESULTS & COMPARATIVE SIMULATIONS

**Convenors**

K. Beyer <sup>1</sup>, A. Penna <sup>2</sup>, M. DeJong <sup>3</sup>

**Description**

Unreinforced masonry structures are among the most vulnerable structures when subjected to earthquakes. This applies in particular to historical masonry structures that constitute large parts of the built heritage of many nations. Any intervention to such structures requires careful evaluations of their seismic response before and after the intervention. However, predicting the seismic response of historical masonry structures remains challenging as recent blind prediction competitions for shake table tests on such structures showed.

To advance the field of research on historical masonry structures this technical session collects contributions on experimental research on historical masonry elements and buildings as well as numerical simulations of such tests. More specifically, we call for contributions on the following topics:

- Laboratory and in-situ testing of historical masonry material, elements, assemblages or buildings
- Numerical simulations of experimental results
- Lessons learnt from blind prediction simulations of experimental results
- Open research data initiatives with regards to experiments on historical masonry structures and their simulations

**Invited Speakers**

C. Butenweg <sup>4</sup>, S. Cattari <sup>5</sup>, D. Malomo <sup>6</sup>, L. Sorrentino <sup>7</sup>

**Affiliations**

<sup>1</sup> Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland, <sup>2</sup> University of Pavia, Pavia, Italy, <sup>3</sup> UC Berkeley, Berkeley, USA, <sup>4</sup> RWTH Aachen, Aachen, Germany, <sup>5</sup> University of Genova, Genova, Italy, <sup>6</sup> McGill, Montréal, Canada, <sup>7</sup> Sapienza, Roma, Italy