

**Session ID:** SHR-6

**Title**

MACROSEISMOLOGY: CURRENT STUDIES AND FUTURE DIRECTIONS

**Convenors**

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**Description**

Macroseismology plays a crucial role in earthquake hazard and risk analyses, tying earthquake occurrences and impacts from the past with those of the present and future. In addition to many traditional uses, the consumption of macroseismic intensity has grown dramatically since internet-based collection has proliferated and its more general use as a metric for communicating essential earthquake information to general audiences, for instance, for earthquake early warning and earthquake hazard maps. However, even with best practices, there are limitations to modern macroseismic data collection approaches, both traditional and internet based. The earthquake engineering and seismological communities would greatly benefit from a formalized International Macroseismic Scale (IMS) aimed at standardizing macroseismic data collection worldwide, more consistent post-earthquake damage data collection, and more uniform crowd-sourced macroseismic data collection.

This session will have presentations that document current efforts aimed at implementing an International Macroseismic Scale (IMS-2024), solicit papers on national or regional-scale traditional or crowd-sourced macroseismic collection, and any related macroseismological studies. Such contributions could include augmenting EMS-98 vulnerability classes for additional building, standardizing post-earthquake damage data collection, approaches for a systematic quantitative description the damage including the link between local and global damage grades, conclusions from recent impactful earthquakes, intensity-based risk studies (including the impact of cascading events), and in particular the comparison between prognosis and observations. Further topics of interest include: the development of community-based macroseismology systems, intensity-based information and decision platforms, rapid response tools and the use of macroseismic applications within the earthquake engineering, social, and other sciences.

**Invited Speakers**

P. Sbarra <sup>4</sup>, A. Hortascu <sup>5</sup>, T. Goded <sup>6</sup>, G. Grunthal <sup>7</sup>, R. Spence <sup>8</sup>

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