



## Session 21

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### Historical earthquake data: strength and limitations

**Conveners:**

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The knowledge of past seismicity mostly relies upon the interpretation of earthquake accounts, produced and written in different periods and contexts, for various purposes.

The translation of this information into numerical data usable for modern seismological investigations - e.g., macroseismic intensity values and earthquake parameters - requires a series of delicate steps, each of which carries and introduces its own uncertainty. Some important pieces of information might be either lost or overlooked in the passage from qualitative to quantitative, simply because they are not easily squeezable in one or more single parameters. End-users are often not aware of the complexity of the process, and consequently of the quality and quantity of information that stands behind each parameter they use.

The session aims at comparing different experiences and stimulating the discussion on how the challenges in every aspect of the production of historical earthquake data are faced and how the relevant uncertainties are taken into account. Expected contributions should address, through examples, the evaluation of macroseismic intensities from different kinds of earthquake accounts, the application of macroseismic scales - in particular the EMS-98 - and their limitations, the reliability of the methodologies for assessing earthquake parameters, the treatment of uncertainties in final elaborations, and so on. Case studies presented by data creators and end-users are both encouraged.

The session will be held in the spirit of ESC-WG 01-12 “Archive of historical earthquake data for the European-Mediterranean area”, the scientific framework for the European Archive of Historical Earthquake Data (AHEAD - <http://emidius.eu/AHEAD>).