



Session 01

Old seismograms / new knowledge: Preservation and use of legacy seismograms - SSA-ESC joint session

Conveners:

Josep Batlló¹, Lorraine Hwang², Raphael de Plaen³, Allison Bent⁴

¹ *Institut Cartogràfic i Geològic de Catalunya, Spain*

² *University of California, Davis, USA*

³ *Observatoire Royal de Belgique, Belgium*

⁴ *Natural Resources Canada, Canada*

The Euro-Mediterranean region is rich in old seismograms predating digital times. These legacy seismograms were recorded on various supports that are not easily discovered and accessed. Nevertheless, analyses using modern methods could help extract the extremely valuable information those records still contain and generate important contributions to understanding and mitigating threats from both natural and anthropogenic hazards. Potential discoveries include past earthquakes and seismic signatures of other natural processes (slow-slip events, storm surges, tectonic tremors, acoustic phases, landslides, icequakes, avalanches...) but also extracting information on interactions between Earth's systems.

In the last years, several initiatives were dedicated to the preservation of legacy seismograms, and analysis of data they contain, leading to continuing progress in how such records can be used.

This session is devoted to the presentation, comparison, and discussion of new initiatives to preserve and distribute the seismograms (under FAIR principles), as well as methods and results obtained from their analysis. The main objective is to get a picture of the current state of the art of preservation, dissemination, and valorization of these historical documents and give momentum to future initiatives.

We invite abstracts on a wide range of topics related to the use and preservation of legacy seismic data including:

- New research using analog data,
- Approaches, methods, and lessons learned in preservation and digitization,
- Solutions for batch digitization, recognition, and conversion of analog data into digital numerical arrays,
- Issues, challenges, case studies in preservation and use,
- Vision and needs for preservation and standards.