



Session 23

New swing for old waveforms

Conveners:

Raphael De Plaen¹, Ryan Gallacher², Silvia Scolaro³, Josep Batlló⁴

¹Royal Observatory of Belgium, Brussels, Belgium

²International Seismological Centre, Berkshire, United Kingdom

³Università degli Studi di Messina, Messina, Italy

⁴Institut Cartogràfic i Geològic de Catalunya, Barcelona, Spain

Most of instrumental seismology data has been recorded on various analog supports, such as paper seismograms, magnetic tapes, and film. These waveforms still contain valuable information on natural and anthropogenic sources, such as earthquakes, volcanic eruptions, storm surges, and nuclear explosions. However, these analog records are often difficult to discover and access, and they are at risk of being forever lost due to degradation and obsolescence.

In recent years, there has been a growing effort to preserve and digitize analog seismic records, leading to continuing progress in how such records can be used. These efforts are compounded by a community-wide push to follow FAIR principles (Findable, Accessible, Interoperable, and Reusable) with all seismic data, old and new.

This session will provide an overview of the current state of the art in the preservation, dissemination, and valorization of legacy seismic data (seismograms and bulletins as well). It will also highlight emerging challenges and opportunities in this field.

We invite submissions on a variety of topics related to the use and preservation of legacy seismic data, including:

- New research using old seismic data
- Methods and lessons learned in preservation and digitization of paper seismograms
- Solutions for mass digitization, recognition, and conversion of analog data to digital numerical arrays
- Challenges and case studies in preservation and use

