Session 27

Networks and open data in seismology the example of HELPOS: HELLENIC PLATE OBSERVING SYSTEM

Conveners:
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The understanding of physical processes underlying earthquake generation, volcanic eruptions, surface and tectonic activities, ground motion, wave propagation, seismic response of engineering structures and tsunamis, require the prompt and long-term availability of high-quality data and services.

HELPOS project aims to form a network of geosciences and earthquake engineering observatories, run by the Greek Research Institutions and Universities, following the EPOS example in Europe. The backbone of the project is formed by permanent stations involved in global, regional and local networks, which feed high-quality services, mostly in real time. Permanent observatories are complemented with local stations and networks in regions of interest. The in-situ monitoring and forecast modeling services of HELPOS is essential for earthquake, earthquake engineering, volcano and tsunami earlywarning systems, as well as for disaster relief, risk assessment, management and prevention. Open access to this multidisciplinary research infrastructure stimulates innovative research on earth dynamics and processes leading to catastrophic events and results in new developments in engineering seismology towards more effective disaster prevention.

In light of these advances, this session welcomes recent results on any of the above fields from a broader community, and not only HELPOS participants. We especially welcome contributions that highlight the importance of existing infrastructure, of the value-added from unified networks and open access data for multidisciplinary studies in the field of earth sciences.