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Seismicity and geodynamics in Corinth Gulf and other Near Fault Observatories

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The Corinth rift is among the fastest extending continental regions in the world. It has one of the highest seismicity rates in the Euro-Mediterranean region, with frequent moderate and strong (M≥6.0) earthquakes. With its high extension rate of 12-14 mm per year (which can't be explained by seismicity alone) it is included among the fastest extending areas in continental regions. In addition, lower magnitude earthquakes and seismic swarms sometimes are very frequent.

The combination of strong, shallow earthquakes during the 20th century and high crustal deformation gave rise to the installation and densification of local seismological and geodetic permanent as well as campaign networks. This infrastructure provides observations of continuous slow, possibly aseismic deformations, not linked to recordable seismicity, by use of space geodetic data. Since 2014 the Corinth Rift Laboratory (CRL) is included as a Near Fault Observatory (NFO) within EPOS.

This session primarily targets scientific observations related to the understanding of the geodynamic evolution and the seismotectonic properties of the rift.

We also invite new advancements of research in the fields of geophysics, seismology, geodesy, geology and their synergy exploiting the NFO operational network at their most, source studies and kinematic modeling, seismic anisotropy, active deformation, and new observations on the properties of the medium and the earthquake nucleation phase. Relative studies from other Near Fault Observatories will also be considered.