

ART-SEIS: A project for real-time seismology in Portugal

Recognizing that geophysical observations are essential for the mitigation of natural disasters the Portuguese Foundation for Science and Technology (FCT) recently created the National Geophysics Network (RNG) – a geophysical monitoring network managed by a consortium of academic and non-academic national institutions. Project ART-SEIS aims at contributing to the mitigation of seismic risk in the Portuguese territory, taking advantage of the new research infrastructures of the RNG. ART-SEIS aims the development of an effective and sustainable seismic monitoring system that allows for the generation of near-real-time earthquake-information after an earthquake, and rapid response in case of disaster. In this workshop, we will present some late developments in the area of broadband seismic observations in Portugal. In particular we will show the progress in the installation of RNG broadband stations. We will also report on the real-time transmission of the seismic data to the labs via satellite VSAT technology. Finally, we will expose our plans for the implementation of real-time analysis tools – automatic location of earthquakes, determination of magnitude, computation of moment tensor – using state-of-the-art software and techniques (e.g., use of SeisComp3 software, VSAT telemetry, sparse-network techniques, non-linear location algorithms).

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