



The AlpArray-CASE project: temporary broadband seismic network deployment and characterization

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While the northern part of the Adriatic microplate will be accurately imaged within the AlpArray project, its central and southern parts deserve detailed studies to obtain a complete picture of its structure and evolution. The Adriatic microplate forms the upper plate in the Western and Central Alps whereas it forms the lower plate in the Apennines and the Dinarides. However, the tectonics of Adriatic microplate is not well constrained and remains controversial, especially with regard to its contact with the Dinarides. The primary goal of the Central Adriatic Seismic Experiment (CASE) is to provide high quality seismological data and to shed light on seismicity and 3D lithospheric structure of the central Adriatic microplate and its boundaries.

The CASE project is an international AlpArray Complementary Experiment carried out by four institutions: Department of Earth Sciences and Swiss Seismological Service of ETH Zürich (CH), Department of Geophysics and Croatian Seismological Service of Faculty of Science at University of Zagreb (HR), Republic Hydrometeorological Service of Republic of Srpska (BIH) and Istituto Nazionale di Geofisica e Vulcanologia (I). It establishes a temporary seismic network, expected to be operational at least for one year, composed by existing permanent and temporary seismic stations operated by the institutions involved and newly deployed temporary seismic stations, installed in November and December 2016, provided by ETH Zürich and INGV: five in Croatia, four in Bosnia and Herzegovina and two in Italy.

In this work, we present stations sites and settings and discuss their characteristics in terms of site-effects and noise level of each station. In particular, we analyse the power spectral density estimates in order to investigate major sources of noise and background noise.