AlpArray-Italy: Site description and noise characterization

Aladino Govoni, Ezio D’Alema, Marco Capello, Adriano Cavaliere, Stefania Danesi, Lucia Margheriti, Marco Massa, Salvatore Mazza, Francesco Mazzarini, Stephen Monna, Milena Moretti, Anna Nardi, Davide Piccinini, Claudia Piromallo, Silvia Pondrelli, Simone Salimbeni, Enrico Serpelloni, Stefano Solarino, Massimiliano Vallocchia, Sara Lovati, Marco Santulin, and the AlpArray Working Group Team
Istituto Nazionale di Geofisica e Vulcanologia, Italy

Within the framework of the European joint research initiative AlpArray (http://www.alparray.ethz.ch/), we deployed overall 20 seismic broad-band stations in Northern Italy and on two islands in the Tyrrhenian Sea (Capraia and Montecristo) during Fall-Winter 2015. All the stations, connected in real-time, were installed at sites selected according to the AlpArray Seismic Network plan: 16 temporary stations running for two to three years and 4 new permanent stations in sites already occupied by accelerometers of the INGV national network. Most temporary stations are equipped with REF TEK 130S digitizers and Nanometrics Trillium Compact 120s sensors (a couple have Nanometrics Trillium 120P and one Streckeisen STS2).
For each site we describe the settings and discuss the noise levels, the site effects and the preliminary sensitivity analysis.