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First results from temporary deployment of small seismic network following the Mw=6.4 Petrinja earthquake

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The Department of Geophysics, University of Zagreb and the Italian National Institute of Oceanography and Applied Geophysics (OGS) installed on January 4th 2021, five temporary seismic stations near the town of Petrinja, Croatia, in the aftermath of the 29 December 2020 Mw 6.4 earthquake. The stations equipped with a seismometer and a strong motion sensor, recorded the aftershock sequence beginning six days after the mainshock allowing to augment the permanent seismic network in the area improving the azimuthal coverage and providing additional near-field observations.

In this presentation we summarize the motivation and goals of the deployment; details regarding the station installation, instrumentation, and configurations and observations from the network. The collected data set will be useful for carrying out several seismological studies including the analysis of variability of strong ground motions in near field, the determination of the aftershocks source parameters, the estimation (if any) of rupture directivity of small events, the clustering of events in space and time, the better imaging of the fault zone, the evolution of crustal properties within and outside of the fault zone.