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Preliminary catalog of quarry blasts in Hungary recorded by the PSZI infrasound array

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There are more than 20 open-pit mines in Hungary where explosions are routinely carried out. The seismic signals generated by these explosions are regularly detected by the Hungarian National Seismological Network. Quarry blasts represent about one third of the seismically detected events in the country. Hence, it is important to clean the earthquake catalogs from anthropogenic events by having a reliable method for the separation of explosions from natural earthquakes.
The first Hungarian infrasound array in Piszkés-tető (PSZI) is co-located with a broadband seismological station, so that it can be used as a seismo-acoustic receiver and can record signals of several quarry blasts. The PSZI array was deployed in June 2017 and in the first months of its operation it recorded several signals from different quarries. In this poster we show a catalog of the explosions recorded in the first months of infrasound registration. We analyze the characteristics of the signals from each mine that later can be used to develop an effective method for the discrimination of earthquakes and explosions by the joint analysis of infrasound and seismic data.