Geophysical Research Abstracts Vol. 20, EGU2018-8476, 2018 EGU General Assembly 2018 © Author(s) 2018. CC Attribution 4.0 license.



AlpArray 2016 & 2017: Data quality analysis as part of surface wave investigation

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The AlpArray research project allows us to investigate the structure and evolution of the lithosphere beneath the entire Alpine area. The project includes around 250 temporary seismic stations, which have been deployed in the period from spring 2015 to summer 2017. Together with the permanent stations all over Europe, there are around 900 stations available in total. For the surface wave analysis, we are interested in two-hour time windows for each earthquake. For different reasons we cannot use the data of all the stations for the data processing. These are: the record is not available for the given day, components are missing, there are too many gaps or overlaps, the traces are shifted in time, the records are too noisy or have no seismic signal. We selected 30 earthquakes spanning more or less the whole 2016 and 2017 and investigate the quality of the data before the surface wave analysis. We present a comprehensive table of all the stations with problems marked for respective days. The statistics of stations suitable for surface wave investigation is also provided. In addition, the performance of temporary stations deployed by the University of Vienna is also given for the complete span of 900 days.