ID: Type: **Poster**

T3.3-P24. On use of artificial neural networks as a classifier of strong noisy seismic signals

Automatic identification of the noisy seismic events is still a problem. The process involves analyzing complex relationships between huge amounts of data originating from different sources. The main disturbing factors with seismic data are: • Poor signal-to-noise ratio; • The presence of accidental bursts of man-made noise; • Changes in the phase and amplitude of the signals while traveling through the medium. With the need to find relationships in ever increasing data volumes, the use of neural networks in seismology is expected to become more and more popular in future. It will be because neural networks are easy to apply and the results often outperform alternative methods. This technology is rapidly moving from the research environment into the routine observations domain. Here are prospects for the development of the technology, an overview of neural networks for classification of noisy seismic signals, a routine strategy of use neural networks as classifier of seismic signals. We are proposing a processing chain for seismic real data analysis, based on neural networks, as an aid to the human interpreter.

Primary author: KISLOV, Konstantin (Institute of Earthquake Prediction Theory and Mathematical Geophysics (IEPT RAS))

Presenter: KISLOV, Konstantin (Institute of Earthquake Prediction Theory and Mathematical Geophysics (IEPT RAS))

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