Electromagnetic transfer functions, tectonic activity and neural networks

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A b s t r a c t: Among the possible causes why electrical conductivity of the subterranean rocks changes are tectonic movements. Electromagnetic transfer functions computed from the 1-minute values of the geomagnetic elements registered by observatories situated in the regions with high tectonic activity appear to include the information on these changes. In our contribution we use the neural network concept known in the field of artificial intelligence. In order to study the earthquake activity we apply this approach for handling both the seismic data and time series of the transfer functions.

Key words: transfer functions, neural network, earthquake

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