

# **Refining Locations of the 2005 Mukacheve, West Ukraine, Earthquakes Based on Similarity of their Waveforms**

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## **A b s t r a c t**

Based on the results of application of correlation analysis to records of the 2005 Mukacheve group of recurrent events and their subsequent relocation relative to the reference event of 7 July 2005, a conclusion has been drawn that all the events had most likely occurred on the same rupture plane. Station terms have been estimated for seismic stations of the Transcarpathians, accounting for variation of seismic velocities beneath their locations as compared to the travel time tables used in the study. In methodical aspect, potentials and usefulness of correlation analysis of seismic records for a more detailed study of seismic processes, tectonics and geodynamics of the Carpathian region have been demonstrated.

**Key words:** recurring earthquakes, waveforms, cross-correlation, relocation, station terms.