

## **GROUND MOTION ATTENUATION AND SHAKING MAPS GENERATION IN THE SOUTHERN ALPS AREA**

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The attenuation laws for PGA, PGV and PSA (0.3 s; 1.0 s; 3.0 s) are computed for the Friuli area (NE Italy) using strong-motion recordings. 900 accelerometric waveforms of 123 earthquakes are selected from the RAF (1993-2005) and ISESD databases in a large magnitude range ( $3.0 \leq M_I \leq 6.3$ ). The epicentral distances vary from 1 km to 100 or 200 km. The signals are filtered and the frequencies varied from 0.1 Hz to 30 Hz.

Different attenuation models are tested and attenuation relation parameters extracted for both vertical and horizontal components (largest component and vectorial addition). The best model includes effects due to local site conditions, near-source and magnitude saturation. Fixing the epicentral distance, for low magnitude values our model estimates lower peak ground accelerations than those proposed in previous studies.

The derived attenuation laws are inserted in the TriNet software to produce, together with real-time data, ground-shake maps for NE Italy. The software is calibrated with recordings of important past seismic events in the studied area in order to produce realistic and consistent real-time shakemaps for future earthquakes.