

## **Austrian empirical seismic ground motion models and site effects**

Stefan Weginger, Yan Jia, and Wolfgang Lenhardt

Zentralanstalt für Meteorologie und Geodynamik, Department of Geophysics - Seismology, Vienna, Austria  
(s.weginger@zamg.ac.at)

To calculate proven local ShakeMaps (maps of ground motion and shaking intensity) and a new hazard map of Austria we are looking for adapted Ground Motion Prediction Equations (GMPE) up to a magnitude 6. Austria is an area with moderate seismicity with long return periods of strong earthquakes. There is good coverage of instrumental data up to  $M_w$  of 4,5. Stronger events can be found close to the border in the Southern Alps.

We show derived models for the Peak Ground Accelerations (PGA), Peak Ground Velocity (PGV), Peak Ground Displacement (PGD), Arias Intensity and Pseudo Spectral Accelerations (PSA) at various frequencies.

Local site conditions have an influence on the ground motion. For the first time we present a  $V_{s30}$  map of Austria and discuss the connection with the seismic site effect.