Progress in GMPE and ShakeMap development in Austira with event-based propagation laws

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For hazard assessments, ground-motion measurements from felt earthquakes in Austria were collected and various statistical parameters were derived. They have constantly being expanded for our real-time information systems. The growing number of observations were used to update the parameterization of our local GMPEs which were compared with the results of the neighboring countries. GMPE developments have shown good mean regional statistical adjustment to the data. Since underground models and comprehensive measurements are not available, it is challenging to parameterize source effects and anisotropies. More condensed networks, like AlpArray, bring new possibilities for event-based GMPE inversions with considerations to azimuth directions. We show the limitations and solutions to make unproved real-time inversions more robust. New ShakeMaps will be presented in interactive maps, mixed with the feedback data from the people of our new Earthquake-App.