



## **Modeling Ground Motions in Eastern Europe**

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As part of an overall risk modeling effort, we developed empirical models to estimate ground shaking in terms of spectral response due to different types of earthquakes in Eastern Europe. In this presentation, we will focus on the relatively high risk regions such as Vrancea seismic zone in Romania, and high seismic activity regions of Greece and Turkey. Each of these regions presents unique challenges in estimating ground motions. We provide a review of existing research on the estimation of ground motion for intermediate depth Vrancea earthquakes and propose a ground motion model to be used for this region based on spectral response. For Greece and Turkey, we review locally developed ground motion models as well as explore applicability of NGA models developed in the US. Final models that were derived out of this process are presented and discussed. We also provide a discussion of how the present study compares with our earlier models developed for the rest of Europe at the borders of the model regions.