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A Double Branching Model for Earthquake Forecasting in diverse zones of the globe

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The purpose of this work is to show the application of a new Earthquake Forecasting Model, called Double Branching Model, both at global and at regional scale, for different zones of the globe. The Double Branching is a time-dependent model and assumes that each earthquake can generate other earthquakes, through physical mechanisms acting on different temporal scales. Remarkably, the model can be used to assess probability forecasts and tested in a forward perspective.
Here we show the forecasting maps obtained for different time-magnitude window in each target region. Moreover we compare them with the predictions provided by a spatially-variable stationary Poisson process, still widely used for Seismic Hazard Assessment and forecasting purpose. The results presented here were obtained within the CSEP experiment and are currently underway within several testing centers.