

## Results of the RELM Test of Earthquake Forecasts in California

The RELM test of earthquake forecasts in California was the first competitive evaluation of forecasts of future earthquake occurrence. Participants submitted expected probabilities of occurrence of  $M \geq 4.95$  earthquakes in  $0.1^\circ \times 0.1^\circ$  cells for the period 1 January 2006 to 31 December 2010. Probabilities were submitted for 7682 cells in California and adjacent regions. During this period, 31  $M \geq 4.95$  earthquakes occurred in the test region. These earthquakes occurred in 22 test cells. This seismic activity was dominated by earthquakes associated with the  $M = 7.2$ , 4 April 2010 El Mayor-Cucapah earthquake in northern Mexico. This earthquake occurred in the test region, and 16 of the other 30 earthquakes in the test region could be associated with it. Nine complete forecasts were submitted by six participants. In this paper, we present the forecasts in a way that allows the reader to evaluate which forecast is the most “successful” in terms of the locations of future earthquakes. We conclude that the RELM test was a success and suggest ways in which the results can be used to improve future forecasts.