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Prospective Evaluation of Global Earthquake Forecast Models: Two Years of Observations Support Merging Smoothed Seismicity with Geodetic Strain Rates

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Supplementary table S1 (in .csv format) provides information on forecasted earthquake numbers and relative forecast performance (in the form of log-likelihood scores) in each spatiomagnitude bin containing at least one observed earthquake during the two-year evaluation period. The log-likelihood scores demonstrate that the baseline seismicity rate established in the tectonic forecasts is insufficient to forecast intraplate seismicity, compared to the forecasted earthquake numbers from GEAR1 and KJSS. The columns (from left to right) display the following information: a) eqLon = earthquake epicenter longitude, b) eqLat = earthquake epicenter latitude, c) eqTime = time earthquake occurred (in decimal years), d) eqMag = earthquake moment magnitude, e) spmMinLon = lower longitude boundary of spatiomagnitude bin, f) spmMaxLon = upper longitude boundary of spatiomagnitude bin, g) spmMinLat = lower latitude boundary of spatiomagnitude bin, h) spmMaxLat = upper latitude boundary of spatiomagnitude bin, i) spmMinMag = lower magnitude boundary of spatiomagnitude bin, j) spmMaxMag = upper magnitude boundary of spatiomagnitude bin, k) forecastGEAR1 = number of earthquakes forecasted by GEAR1 during evaluation period, l) forecastSHIFT_GSRM = number of earthquakes forecasted by SHIFT_GSRM during evaluation period, m) forecast_SHIFT_GSRM2F = number of earthquakes forecasted by SHIFT_GSRM2F during evaluation period, n) forecast_KJSS = number of earthquakes forecasted by KJSS during evaluation period, o) llGEAR1 = log-likelihood score in earthquake's spatiomagnitude bin calculated from GEAR1, p) llSHIFT_GSRM = log-likelihood score in earthquake's spatiomagnitude bin calculated from SHIFT_GSRM, q) llSHIFT_GSRM2F = log-likelihood score in earthquake's spatiomagnitude bin calculated from SHIFT_GSRM2F, r) llKJSS = log-likelihood score in earthquake's spatiomagnitude bin calculated from KJSS, and s) eqCount = number of earthquakes observed in spatiomagnitude bin.

Table caption:

Table S1: Earthquake catalog, forecasted earthquake numbers and log-likelihood scores in target spatiomagnitude bins (containing at least one earthquake observed during the evaluation period). he log-likelihood scores demonstrate that the baseline seismicity rate established in the tectonic forecasts is insufficient to forecast intraplate seismicity, compared to the forecasted earthquake numbers from GEAR1 and KJSS. The columns (from left to right) display the following information: a) eqLon = earthquake epicenter longitude, b) eqLat = earthquake epicenter latitude, c) eqTime = time earthquake occurred (in decimal years), d) eqMag = earthquake moment magnitude, e) spmMinLon = lower longitude boundary of spatiomagnitude bin, f) spmMaxLon = upper longitude boundary of spatiomagnitude bin, g) spmMinLat = lower latitude boundary of spatiomagnitude bin, h) spmMaxLat = upper latitude boundary of spatiomagnitude bin, i) spmMinMag = lower magnitude boundary of spatiomagnitude bin, j) spmMaxMag = upper magnitude boundary of spatiomagnitude bin, k) forecastGEAR1 = number of earthquakes forecasted by GEAR1 during evaluation period, l) forecastSHIFT_GSRM = number of earthquakes forecasted by SHIFT_GSRM during evaluation period, m) forecast_SHIFT_GSRM2F = number of earthquakes forecasted by SHIFT_GSRM2F during evaluation period, n) forecast_KJSS = number of earthquakes forecasted by KJSS during evaluation period, o) llGEAR1 = log-likelihood score in earthquake's spatiomagnitude bin calculated from GEAR1, p) llSHIFT_GSRM = log-likelihood score in earthquake's spatiomagnitude bin calculated from SHIFT_GSRM, q) llSHIFT_GSRM2F = log-likelihood score in earthquake's spatiomagnitude bin

calculated from SHIFT_GSRM2F, r) llKJSS = log-likelihood score in earthquake’s spatiomagnitude bin calculated from KJSS, and s) eqCount = number of earthquakes observed in spatiomagnitude bin.