

Prospective evaluation of 3-month testing class of the CSEP-Japan earthquake forecasts

TSURUOKA, Hiroshi^{1*} ; HIRATA, Naoshi¹

¹Earthquake Research Institute, University of Tokyo

Collaboratory for the Study of Earthquake Predictability (CSEP) is a global project of earthquake predictability research. The primary purposes of the CSEP is to develop a virtual, distributed laboratory. The final goal of this project is to investigate the intrinsic predictability of earthquake rupture mechanisms.

One major focus of the Japanese earthquake prediction research plan 2009-2013 is testable earthquake forecast models. So, the Earthquake Research Institute joined the CSEP and installed in an international collaboration a testing center as CSEP-Japan for rigorous evaluation of earthquake forecast models.

A total of 160 models were submitted from all over the world. And CSEP-Japan started the prospective experiments from 1 November 2009. The models are currently under test in 12 categories, with 3 testing regions and 4 testing classes of different time spans (1day, 3 month, 1 year and 3 years). We evaluate the performance of the models in the official suite of tests defined by the CSEP (L, M, N, S, R, T and W tests) against authorized catalogue compiled by Japan Meteorological Agency.

CSEP-Japan testing center has conducted over 6-12 rounds tests for 3-month testing classes including 2011 Tohoku-oki earthquake. We will discuss these results of evaluation test of the prospective experiments, and checked the performance of the earthquake models.

Keywords: CSEP, Earthquake Predictability, Seismicity