Japan Geoscience Union Meeting 2014
(28 April - 02 May 2014 at Pacifico YOKOHAMA, Kanagawa, Japan)

SSS01-01 Room:419 Time:May 2 14:15-14:30

Collaboratory for the Study of Earthquake Predictability - Global Activities

SCHORLEMMER, Danijel[1*] ; GERSTENBERGER, Matt[2] ; HIRATA, Naoshi[3] ; JORDAN, Thomas[4] ; LIUKIS, Maria[4] ; MARZOCCHI, Warner[5] ; RHOADES, David[2] ; TSURUOKA, Hiroshi[3] ; WERNER, Maximilian[6] ; ZECHAR, Jeremy[7] ; CSEP WORKING GROUP, The[4]

[1]GFZ German Research Centre for Geosciences, 14473 Potsdam, Germany, [2]GNS Science, Avalon, Lower Hutt, New Zealand, [3]Earthquake Research Institute, University of Tokyo, Tokyo 113-0032, Japan, [4]Southern California Earthquake Center, University of Southern California, Los Angeles CA 90089, USA, [5]Istituto Nazionale di Geofisica e Vulcanologia, 00143 Roma, Italy, [6]School of Earth Sciences and Cabot Institute, University of Bristol, Bristol BS8 1RJ, UK, [7]Swiss Seismological Service, ETH Zurich, Zurich, Switzerland

The Collaboratory for the Study of Earthquake Predictability (CSEP) aims to improve our understanding about the physics and predictability of earthquakes through rigorous and prospective testing of earthquake forecast models. The system-science character of earthquake prediction research demands an open and collaborative structure for experimentation in a variety of fault systems and tectonic regions. CSEP Testing Centers in California, New Zealand, Japan, and Europe are being developed to provide adequate infrastructure for predictability research. CSEP is currently running prospective, automated evaluations of more than 350 models in various testing regions, e.g. California, New Zealand, Japan, Italy, and globally. We present the evolution of CSEP since its inception in 2007 and discuss results from several types of CSEP experiments. Finally, we describe how CSEP is expanding into other areas, including the testing of earthquake early warning systems, geodetic transient detectors, intensity prediction equations, ground-motion prediction models, and other types of hazard models.

Keywords: Earthquake forecasting, Seismic hazard, Statistical seismology, Earthquake statistics, Forecast testing