

Collaboratory for the Study of Earthquake Predictability & Global Earthquake Model - Testing Center Software Development

BEUTIN, Thomas^{1*} ; LIUKIS, Maria² ; MAECHLING, Philip² ; MAK, Sum¹ ; SCHORLEMMER, Danijel¹ ; YU, John²

¹GFZ German Research Centre for Geosciences, 14473 Potsdam, Germany, ²Southern California Earthquake Center, University of Southern California, Los Angeles CA 90089, USA

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. CSEP operates four testing centers in California, New Zealand, Japan, and Europe running prospective, automated evaluations of more than 430 models. These testing centers are the technical infrastructure of CSEP and implement all procedures and protocols for rigorous testing and evaluation of earthquake prediction experiments. These experiments run in various testing regions and comprise forecast periods of one day to many years. The CSEP testing center software system is the general infrastructure of all CSEP testing centers and is now being used for earthquake early warning systems and geodetic transient detectors. The Testing and Evaluation Group of the Global Earthquake Model project at GFZ Potsdam is expanding the system to test intensity prediction equations and ground-motion prediction. We present the recent developments, the ongoing experiments, and introduce the structure of the software system.

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