Electronic Supplement for pyCSEP: A Python Toolkit for Earthquake Forecast Developers

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DESCRIPTION

The electronic supplement for *pyCSEP: A Python Toolkit for Earthquake Forecast Developers* consists of two parts: (1) a reproducibility package that contains the code and data needed to recreate the figures from this manuscript and (2) an interactive document (Jupyter notebook) that contains the mathematical motivation and working code examples for the statistical tests contained in pyCSEP.

Reproducibility Package

The reproducibility package can most easily be accessed from GitHub at the following link: `https://github.com/wsavran/pycsep_esrl_reproducibility/`, or through Zenodo using the DOI at `https://doi.org/10.5281/zenodo.6626265`. The repository contains the scripts needed to recreate the figures from the manuscript, excluding Figs. 1 and 8. For complete instructions on running the reproducibility package, please see the README.md file provided at the previously mentioned web address. We recommend that users wanting a quick start with pyCSEP use the 'lightweight' version of the package. This version excludes the catalog-based forecasts as the download and run-time are significantly longer than the grid-based forecasts.

Document on statistical tests

We provide the HTML output from a Jupyter notebook that contains the mathematical descriptions and working code examples for the statistical tests contained in pyCSEP. This document contains the text and code cells present in the notebook, but is not interactive. We encourage users to obtain the notebook from the repository at `https://github.com/SCECcode/pycsep/tree/master/notebooks` and use the notebook as a reference. This document should be helpful to new users

when working through the article and reproducibility package. A static version of this content is also hosted at the pyCSEP documentation `https://docs.cseptesting.org/getting_started/theory.html`