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Pyrocko: A Versatile Software Framework for Seismology

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Pyrocko is an open source seismology toolbox and library, written in the Python programming language. It can be utilized flexibly for a variety of geophysical tasks, like seismological data processing and analysis, modelling of waveforms, InSAR or GPS displacement data, or for seismic source characterization.

At its core, Pyrocko is a library and framework providing building blocks for researchers and students wishing to develop their own applications.

Pyrocko contains a few standalone applications for everyday seismological practice. These include the Snuffler program, an extensible seismogram browser and workbench, the Cake tool, providing travel-time and ray-path computations for 1D layered earthmodels, Fomosto, a tool to manage pre-calculated Green's function stores, Jackseis, a command-line tool for common waveform archive data manipulations, and Colosseo, a tool to create synthetic earthquake scenarios, serving waveforms and static displacements.

This poster gives a glimpse of Pyrocko's features, for more examples and tutorials visit http://pyrocko.org.