

Benchmarks

Short-Term Tectonics Benchmarks

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[Overview](#)

Benchmarks

- [Strike-slip](#) (no gravity)
- [Reverse-slip](#) (no gravity)
- [Reverse-slip](#) (with gravity)
- [Savage and Prescott Simulation](#)

Proposed Benchmarks

SAVAGE AND PRESCOTT VARIATIONS

- Slip through entire elastic layer
- Drucker-Prager in crust
- Different rheologies in “mantle” (generalized Maxwell, power-law)

STABILITY BENCHMARK WITH PRESTRESSES AND FINITE STRAIN

Cube with a solid sphere of same density

Cube with a solid sphere of different density (quasi-static)

SUBDUCTION EARTHQUAKES WITH GRAVITY AND FINITE STRAIN (THATCHER AND RUNDLE, 2007)

How does this compare to Bardot and Fialko (2010) solution?

2D or 3D?

Linear or non-linear viscoelastic

Different rheologies for both crust (e.g., elastoplastic) and mantle (power-law, generalized Maxwell)

Comparison of Semi-Analytic Codes

Examples

BENCHMARKS
