

Simulation with a basal fluid source ($0.15 \times 10^{-9} \text{ m/s}$), performed with an initial stress defined as $\sigma_1 = \sigma_3$, a fault permeability equal to 10^9 m^2 , and $\Lambda = 0.7 \text{ MPa/}^\circ\text{C}$.

Data in Folder “q0_0.15”:

- **Fault_velocity:** fault velocity “Vf” (m/s) fluctuation along the fault during an earthquake. *(Data used for Figure 6.a)*
- **Thermal:** Thermal anomalies ($^\circ\text{C}$) fluctuation along the fault during an earthquake.
- **Time:** Time variable (yrs). Data was printed every 0.1 second during the coseismic period, and every 1 year during the interseismic period. *(For this database, the time 0 is the onset of the earthquake. A single earthquake is shown in this database)*
- **Depth:** Depth of the fault nodes (km).

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- **Mean_shearStress:** tangential stress “ τ ” (Pa) fluctuation at 12.75 km depth on the fault during the seismic cycle.
 - **velocity:** fault velocity “Vf” (m/s) fluctuation at 12.75 km depth on the fault during the seismic cycle
 - **Anomaly_temperature:** Thermal anomalies ($^\circ\text{C}$) fluctuation at 12.75 km depth on the fault during the seismic cycle
 - **Pore_fluid:** Pore-fluid factor (λ) fluctuation at 12.75 km depth on the fault during the seismic cycle
 - **Apparent_friction:** apparent friction coefficient fluctuation at 12.75 km depth on the fault during the seismic cycle
 - **mean_slip:** mean slip along the fault during the seismic cycles.
 - **Time2:** Time variable (yrs) for **Mean_shearStress, velocity, Anomaly_temperature, Pore_fluid, Apparent_friction and Mean_slip** data. Data was printed every 0.1 second during the coseismic period, and every 1 year during the interseismic period.
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