Pore-pressure valves model of seismicity

– Research update –

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Around permanent regime

Valves (or barriers) are characterized by a width *w_b* and a permeability *k_b* 10–100 times lower than background.

A permanent regime can be described if the valves do not open/close. We use it to study in a controlled manner how p transient affect neighboring valves.

We are able to theoretically derive pore pressure profiles (and thus equilibrium flux) in stationnary regime for an arbitrary distribution of N valves, with varying widths and permeability, in 2 boundary conditions settings for now: *(a)* fixed pressure on both sides of the domain, and *(b)* fixed flux on the deep end, fixed pressure on the shallow end.