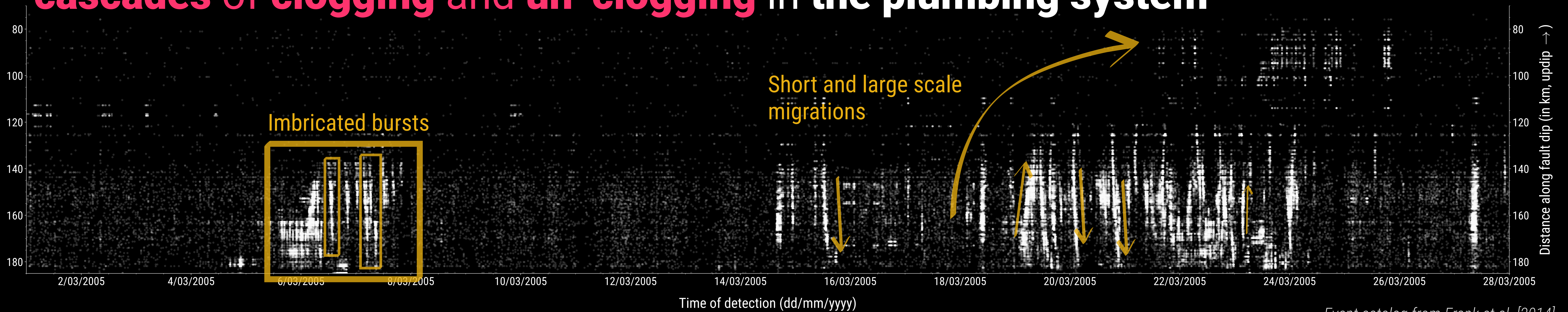


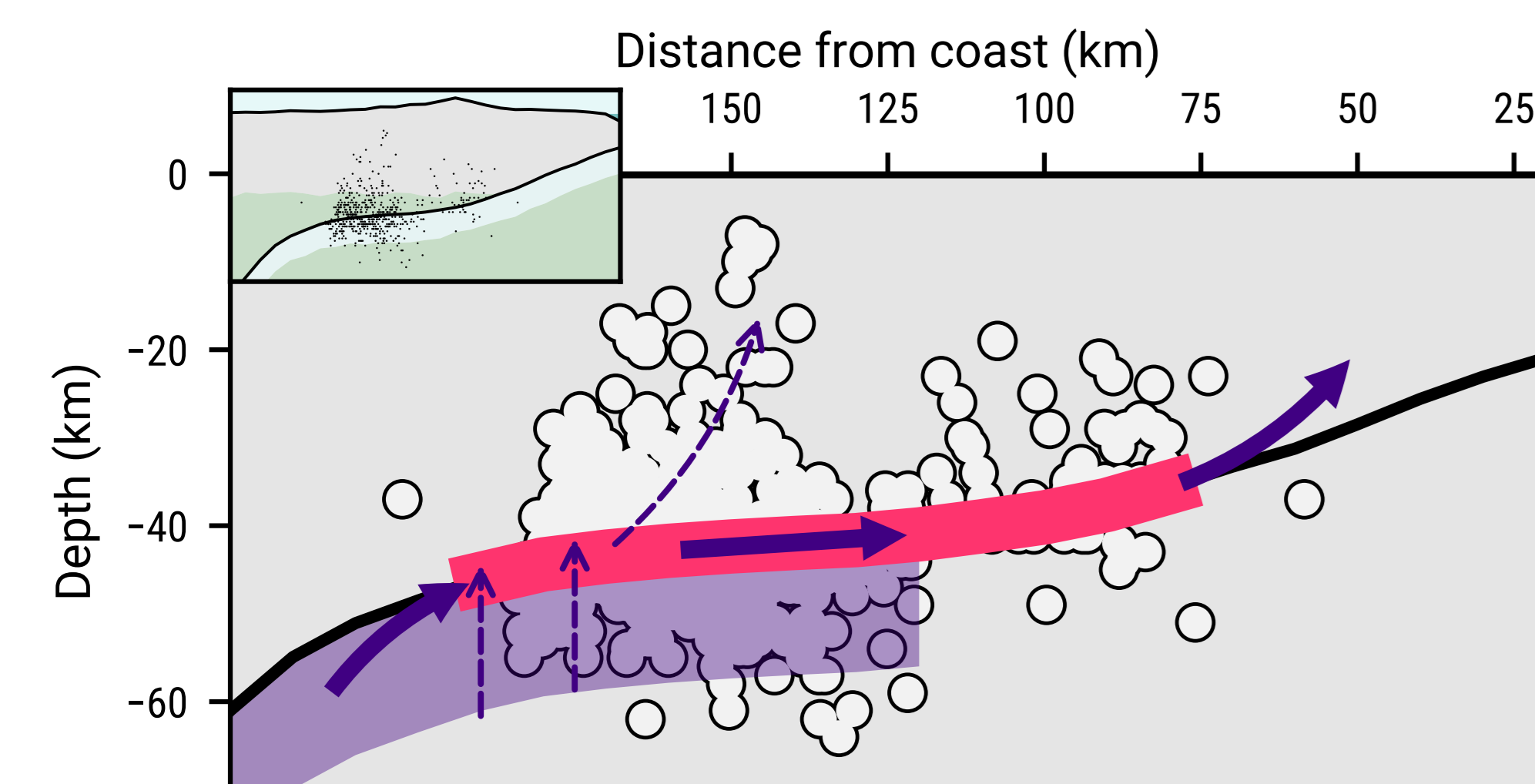
In large faults, **micro seismicity patterns** emerge from **cascades of clogging and un-clogging** in the plumbing system

Low-frequency earthquakes activity patterns in the subduction zone of Guerrero, Mexico



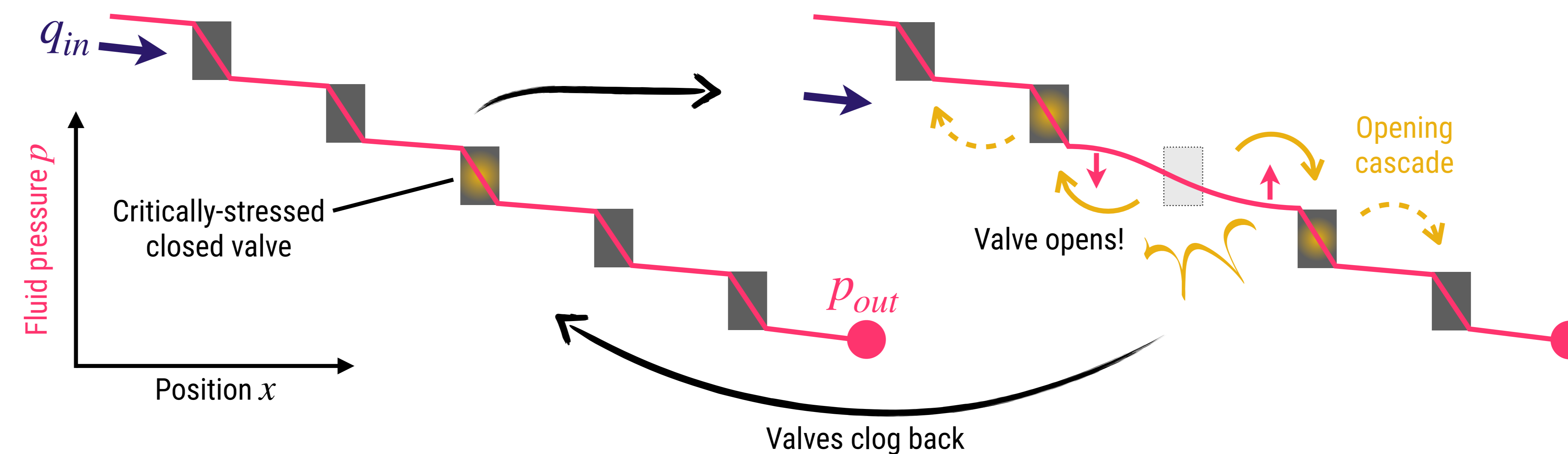
Event catalog from Frank et al. [2014]

Large faults act like **large-scale, permeable fluid transport systems**



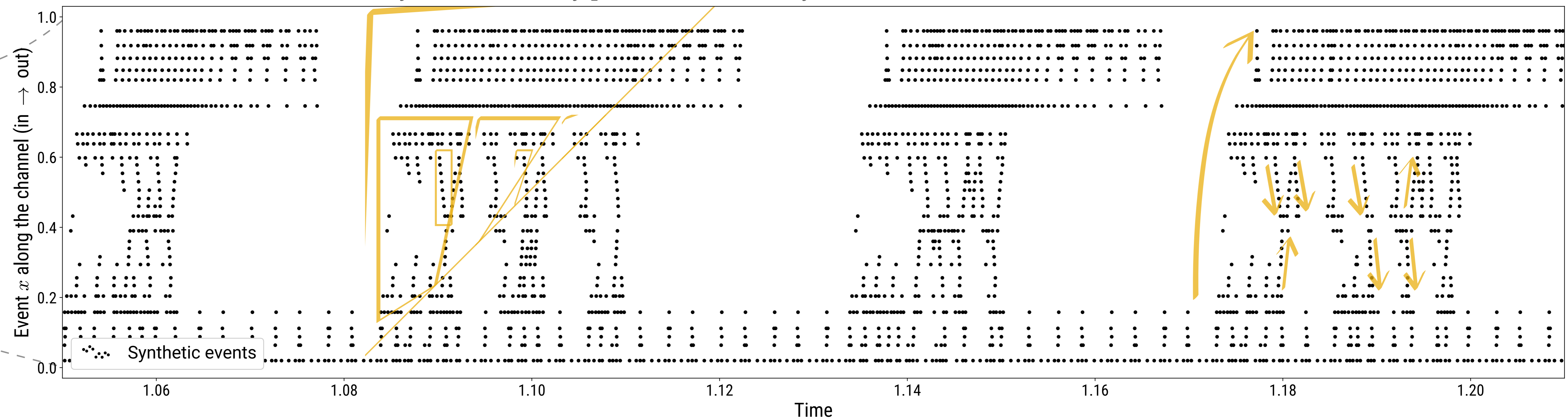
Fluid pathways
 LFE sources
 Metamorphic fluid source
 Subduction fault
 High fluid pressures

We model the **cycles of clogging and un-clogging** of the fault's permeability by a **valve system**



Due to valve-to-valve **intermittence and migration** emerge, building on **elementary cascades**

Synthetic activity patterns in valve system submitted to a constant flux



for preprint/poster



by Gaspard Farge, Claude Jaupart, Nikolai Shapiro