

# Supporting Information for "Susceptibility of microseismic triggering to small sinusoidal stress perturbations at the laboratory scale"

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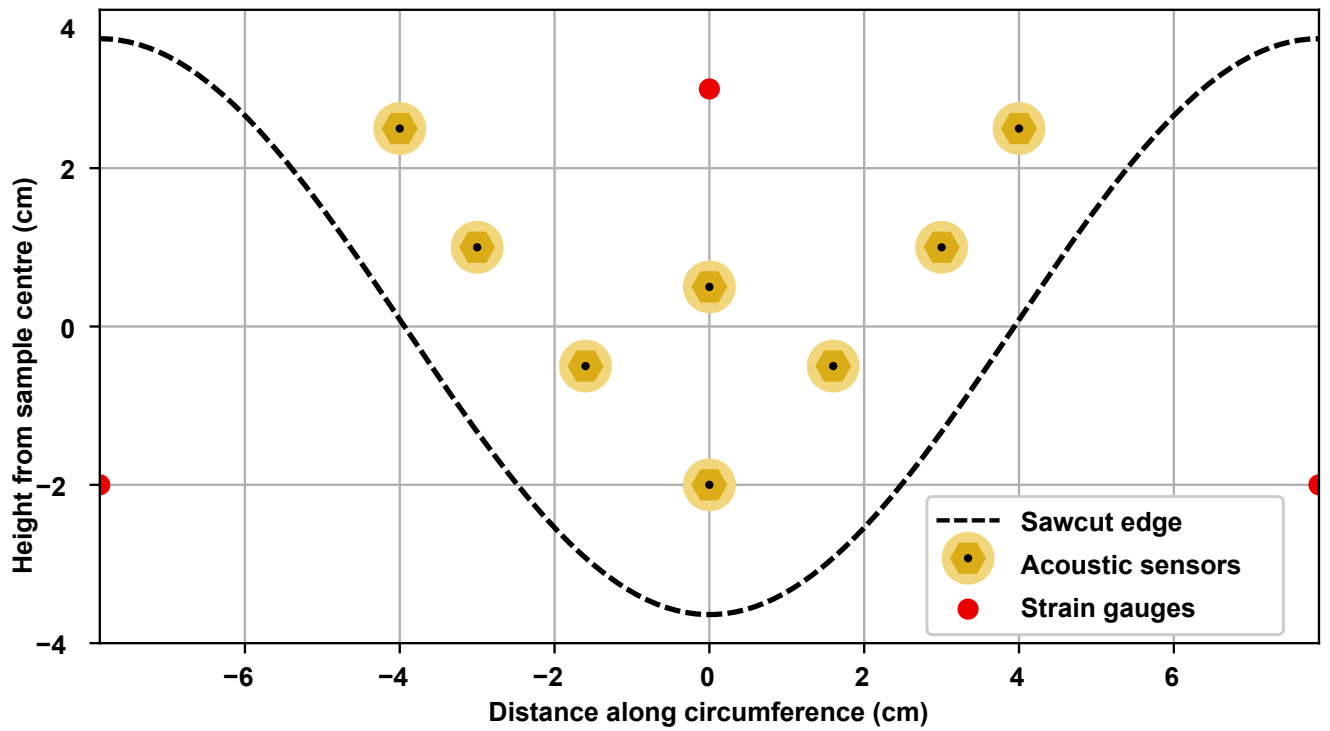
Paris-Diderot - Paris, France

## Contents of this file

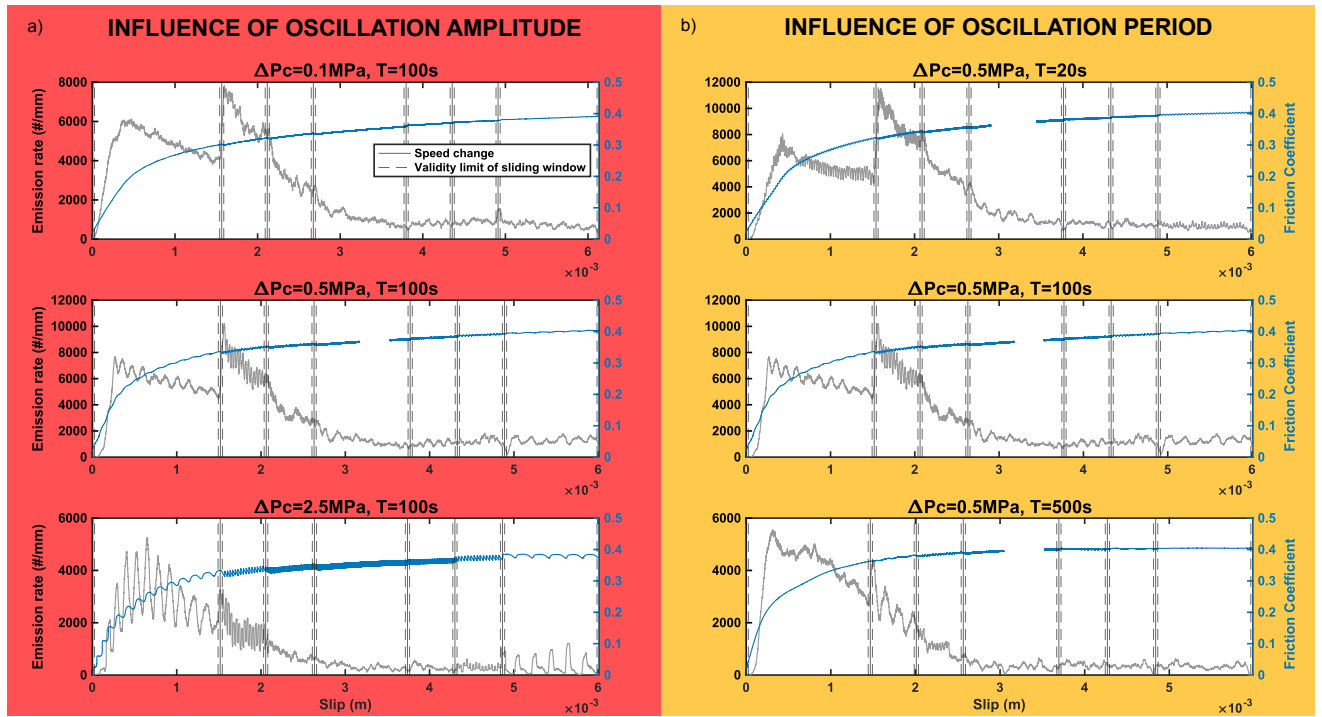
1. Figures S1 to S4

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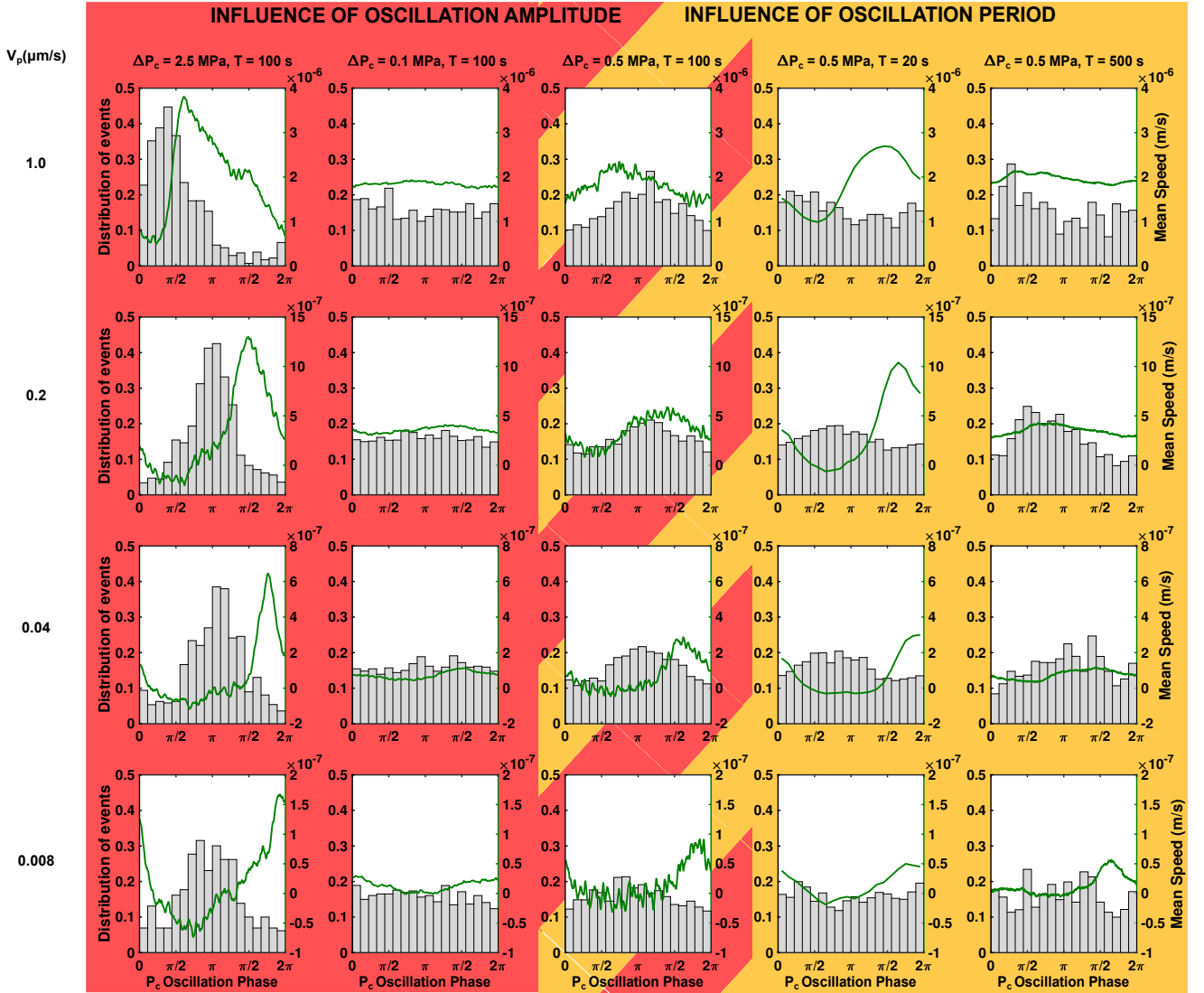
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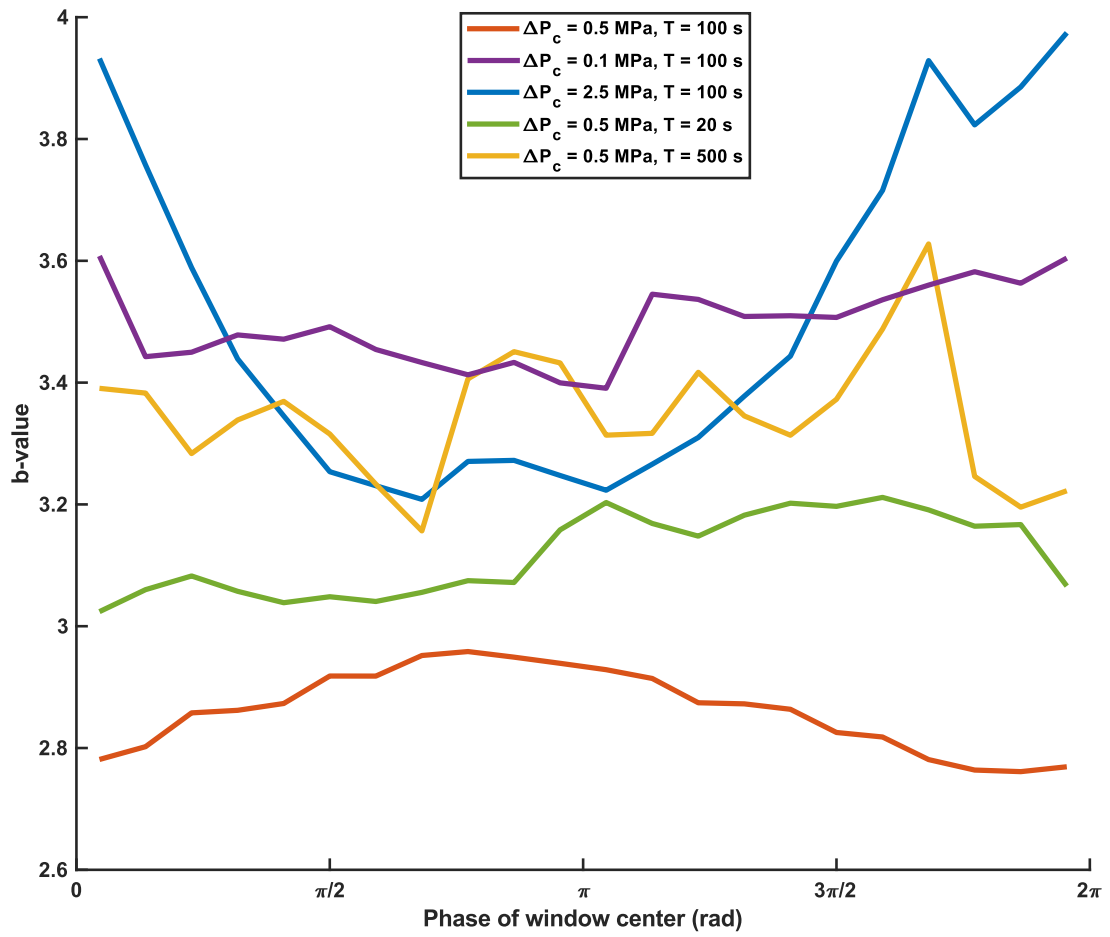
**Figure S1.** Map of sensor placement on the sample. The sensors are placed as close as possible to the sawcut edge in order to better resolve AEs.



**Figure S2.** Emission rate and friction coefficient in experiments regrouped to illustrate (a) the influence of the oscillation amplitude, (b) the influence of the oscillation period on both these quantities.



**Figure S3.** Slip speed averaged over one oscillation and associated acoustic emissions at each velocity. The first velocity step is ignored as it corresponds to a transient state. When acoustic emission modulation is clearly visible, acoustic emissions appear either as precursory to or synchronized with increased slip speed, implying in the first case that acoustic emissions act as "foreshocks" of the main slip.



**Figure S4.** b-value oscillation for all experiments using a phase window  $\pi$  radians wide and a cut-off magnitude of -1.8.