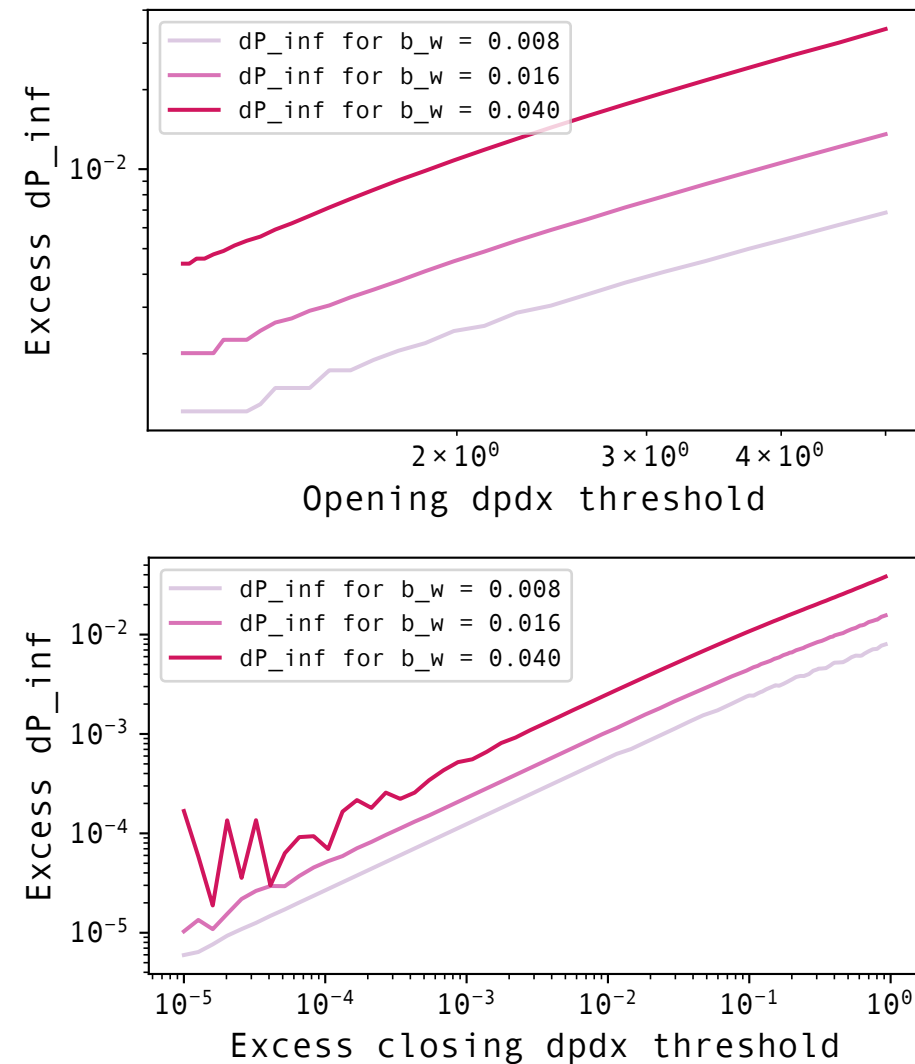
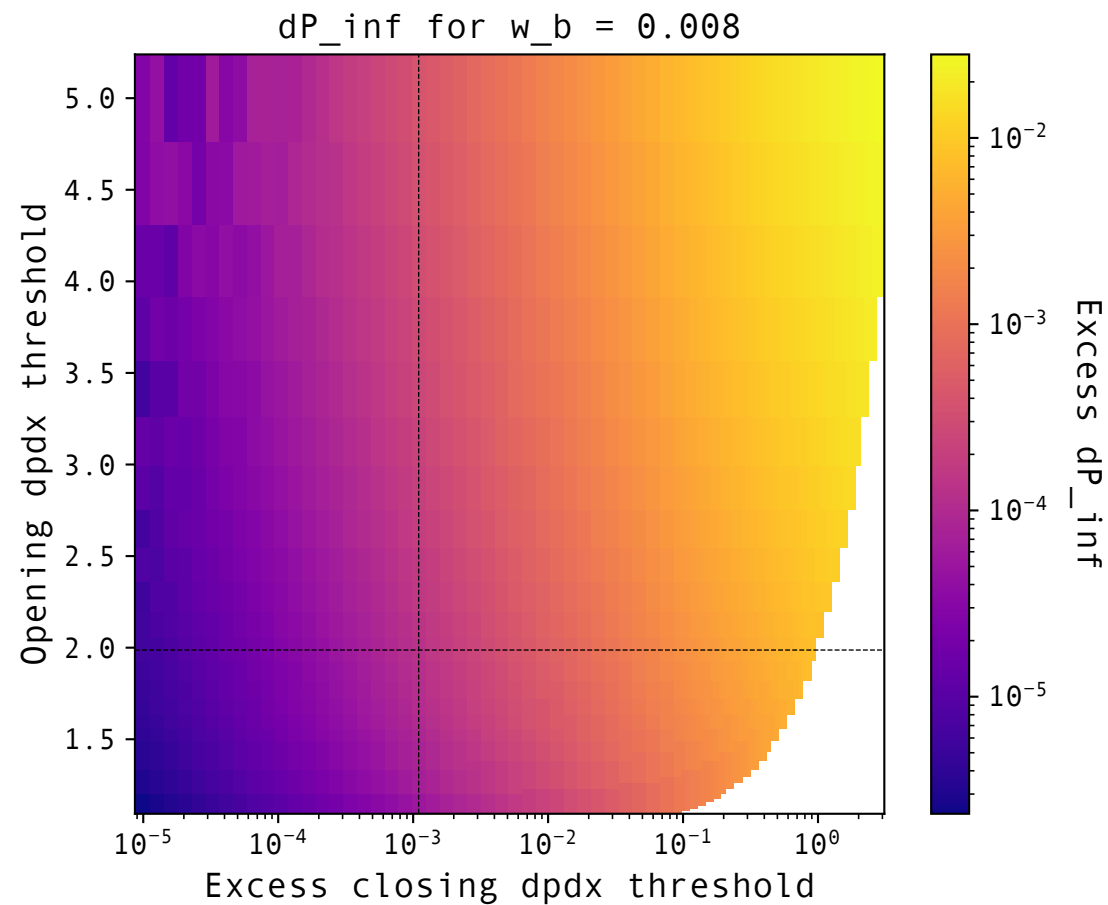


Dynamics of an isolated valve

Q_{bound}

(b) Results: *pressure diff. across the domain (dP_{inf})*



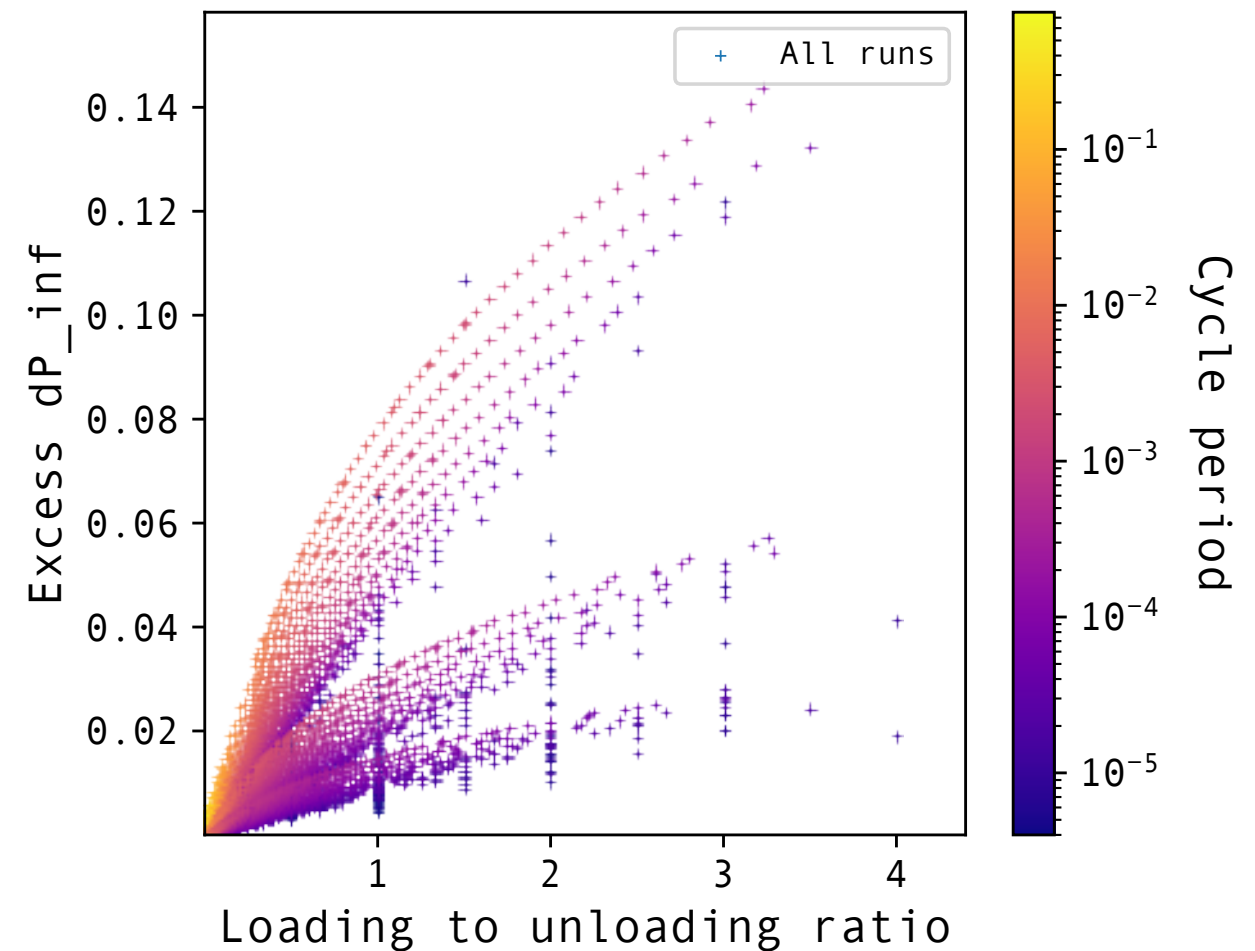
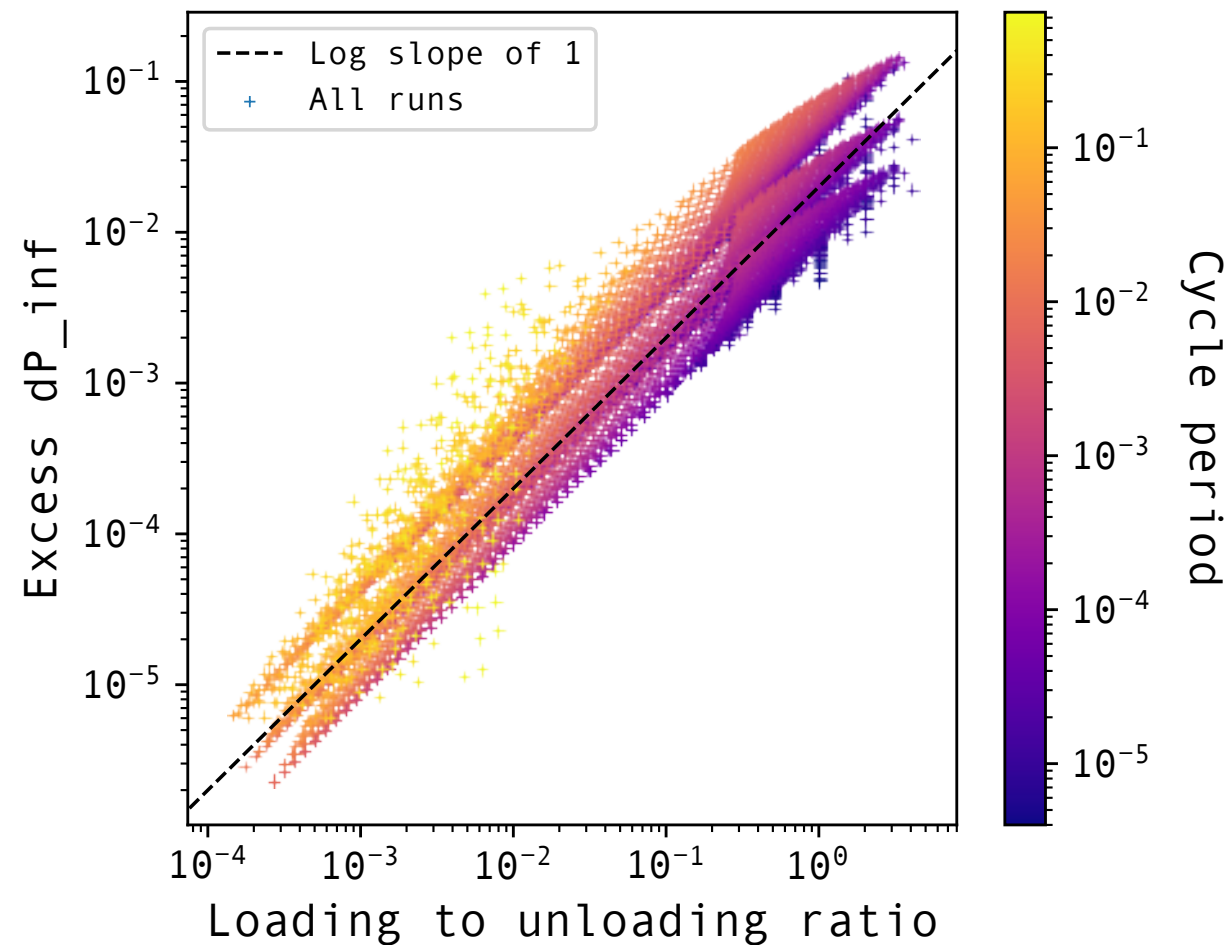
Observations:

1/ dP_{inf} grows with both closing and opening threshold: the more closed the valve is, the more it appears as a barrier of high permeability, thus letting the pressure increase on the sides of the domain.

2/ The dependency on w_b seems to be more linear this time, but still, the wider the barrier, the less permeable it appears.

Dynamics of an isolated valve

(b) Results: *pressure diff. across the domain (dP_inf)*



Observations:

- 1/** When the valve is mostly open (l/ul ratio $\ll 1$), dP_{inf} is linearly related to the l/ul ratio.
- 2/** When the valve is mostly closed regime (l/ul ratio $\gg 1$, not reached with our current set of parameters), dP_{inf} should asymptotically approach an equilibrium value, corresponding to a k_{b_eff} , closer and closer to k_b .