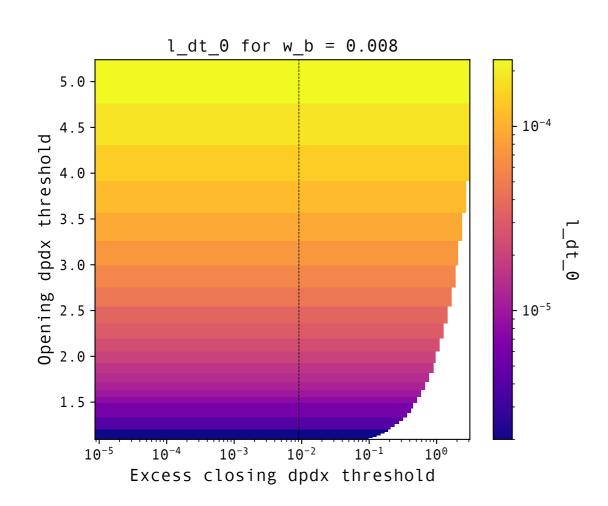
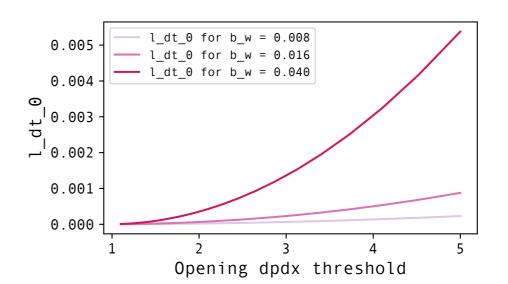
## Dynamics of an isolated valve (b) Results: first loading period (I\_dt\_0)

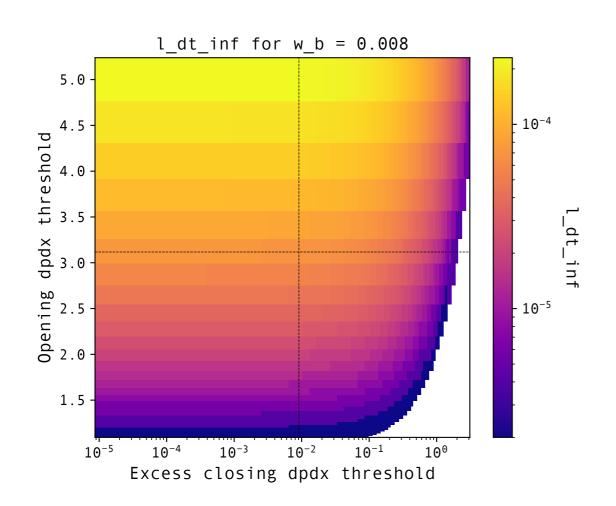


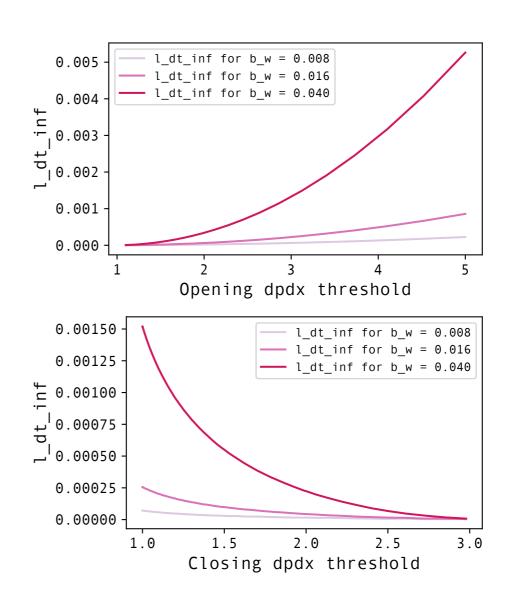


## **Observations:**

- 1/ No dependency on closing threshold (obviously)
- 2/ The higher the opening threshold, the longer the loading dt. l\_dt\_0 = f(dpdx\_op) convex curve: the pressure rises quickly first and then slower and slower (cf dP curve in previous slide)
- 3/ The wider the barrier, the longer the loading (the overpressure needed to reach the threshold pressure gradient grows with distance from the center of the barrier)

## Dynamics of an isolated valve (b) Results: last loading period (l\_dt\_inf)





## **Observations:**

- 1/ The higher the opening threshold, the longer the loading dt
- 2/ The higher the closing threshold, the shorter the loading dt (for a fixed opening thr, the further apart op/cl thr are, the longer the loading)
- 3/ The wider the barrier, the longer the loading.