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The influence of flushing on lock exchange

Locks are used to reduce salt intrusion towards the fresh waters. Within these locks there are some possible processes to reduce the salt intrusion even further. One of these processes is flushing, which generates a velocity towards the salt side based on height differences. The 'Zeesluisformulering' states that this velocity of flushing can be superimposed on the velocity of the gravity current. However this assumption is not based on any physical arguments. Therefore, my study is about studying the effects of flushing on the lock-exchange flow. The effect is going to be studied both analytically and numerically (Star CCM+). The goal is eventually to improve the ZSF, if necessary.

Info:

