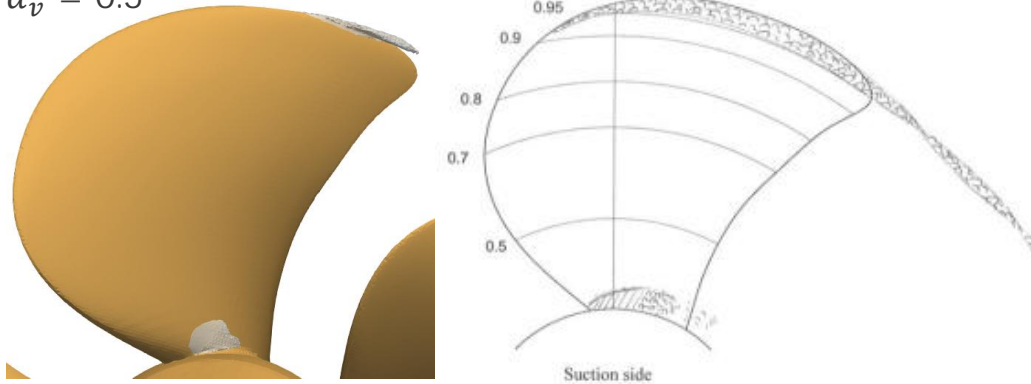


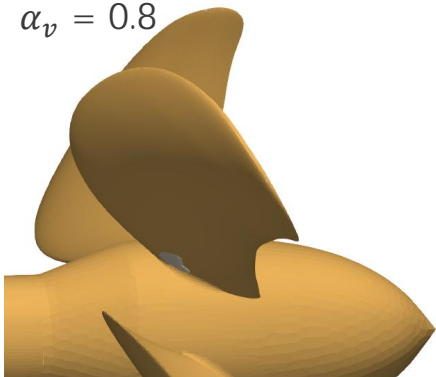
Potsdam Propeller Testcase '11

$\alpha_v = 0.5$

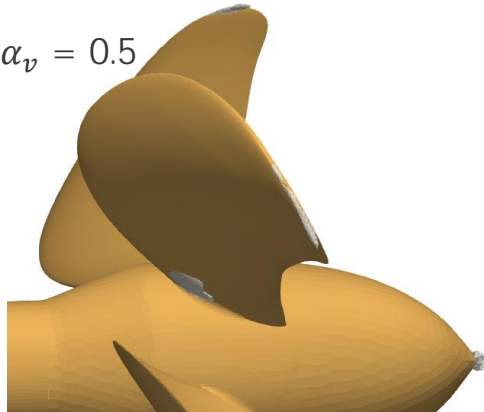


| CFD setup | |
|-------------------------------|---|
| Mesh (helyxHexMesh) | |
| nCells | 9.5 million |
| Wall handling | Wall function |
| Solver | interPhaseChangeDyMFoam (modified) |
| Turbulence | kOmegaSST |
| Discretization | |
| Convection | 2nd order |
| Time | 2nd order |
| Phase convection | 1st order |
| Cavitation | SchnerrSauer |
| Interface sharpness | off |
| Iterations/Revolutions | 13 (steady + singlephase(11) + multiphase(2)) |

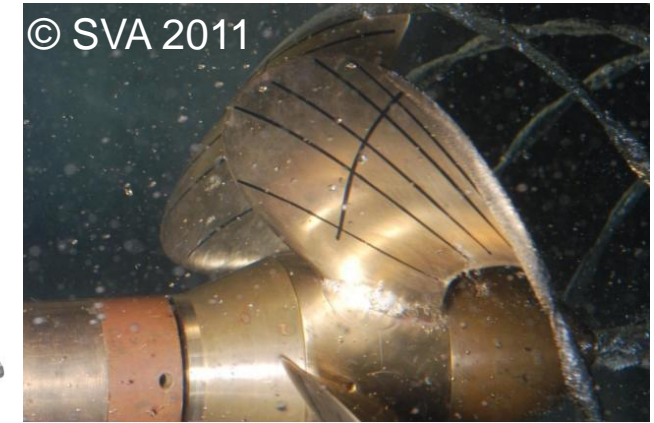
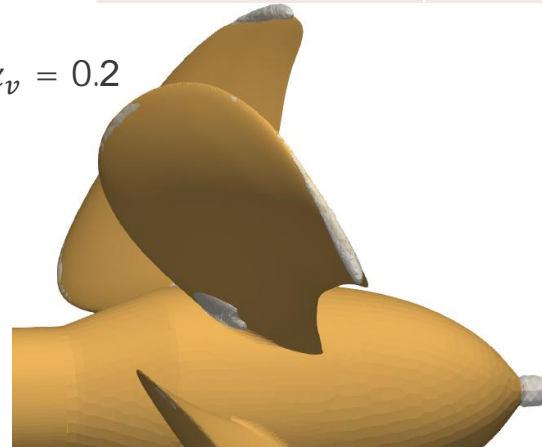
$\alpha_v = 0.8$



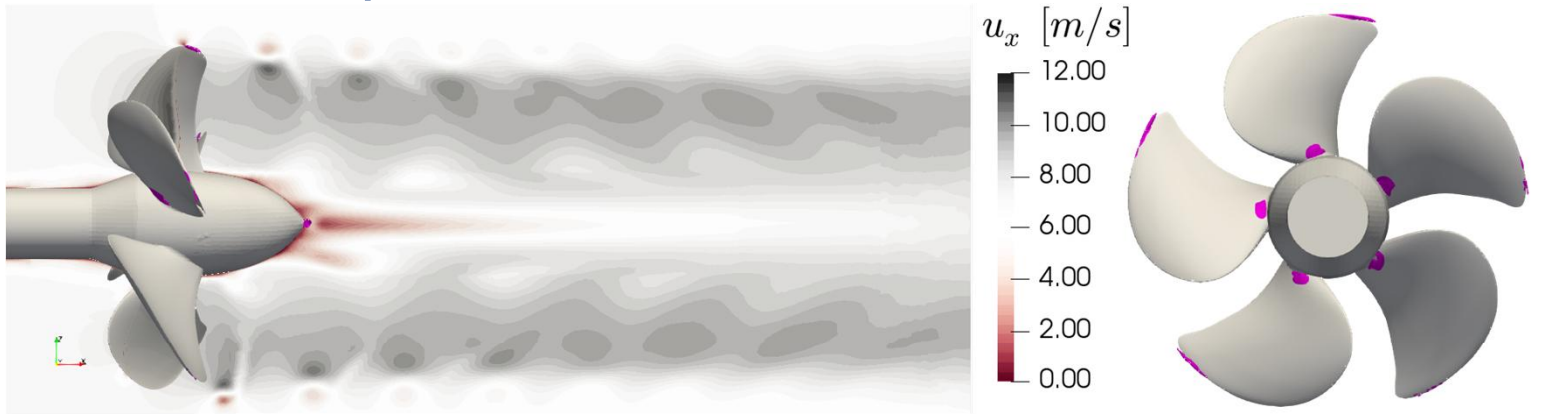
$\alpha_v = 0.5$




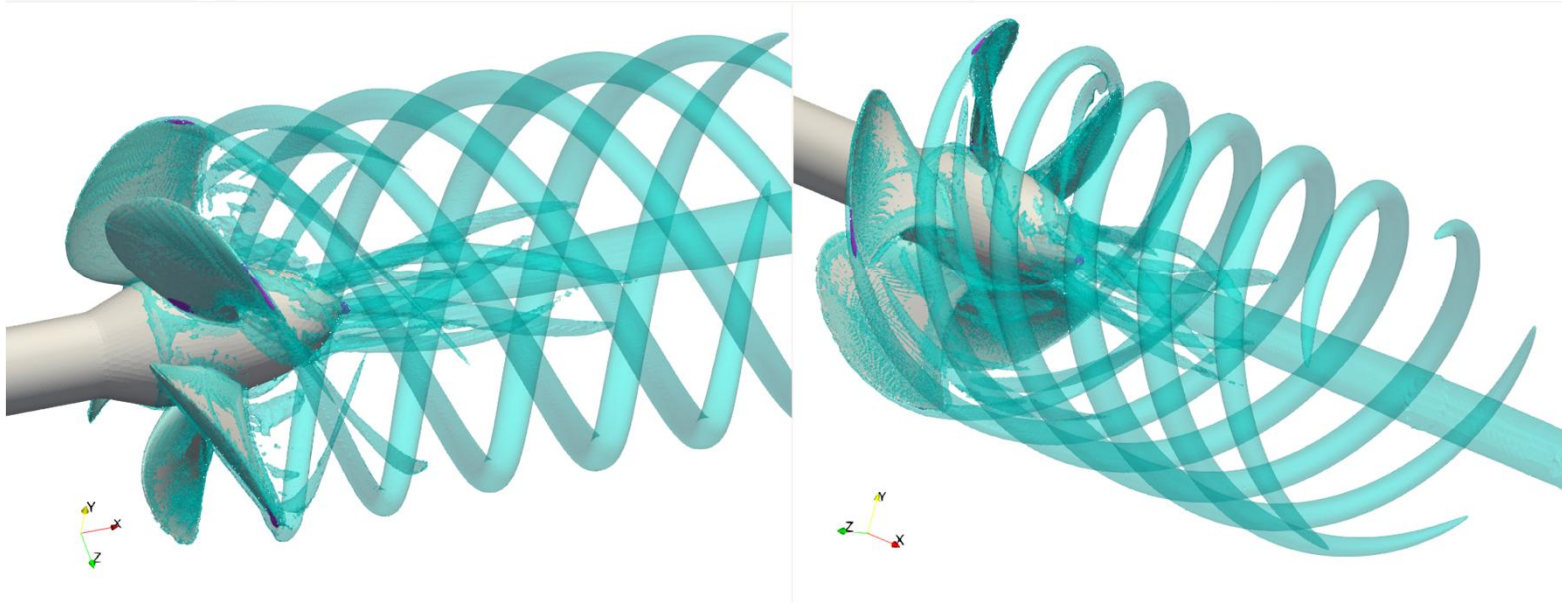
$\alpha_v = 0.2$




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 50% vapour fraction
(cavitation inception)



 Q-criterion of 10^4 s^{-2}
(Vortex indicator)

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