2D Jet Simulation Testing

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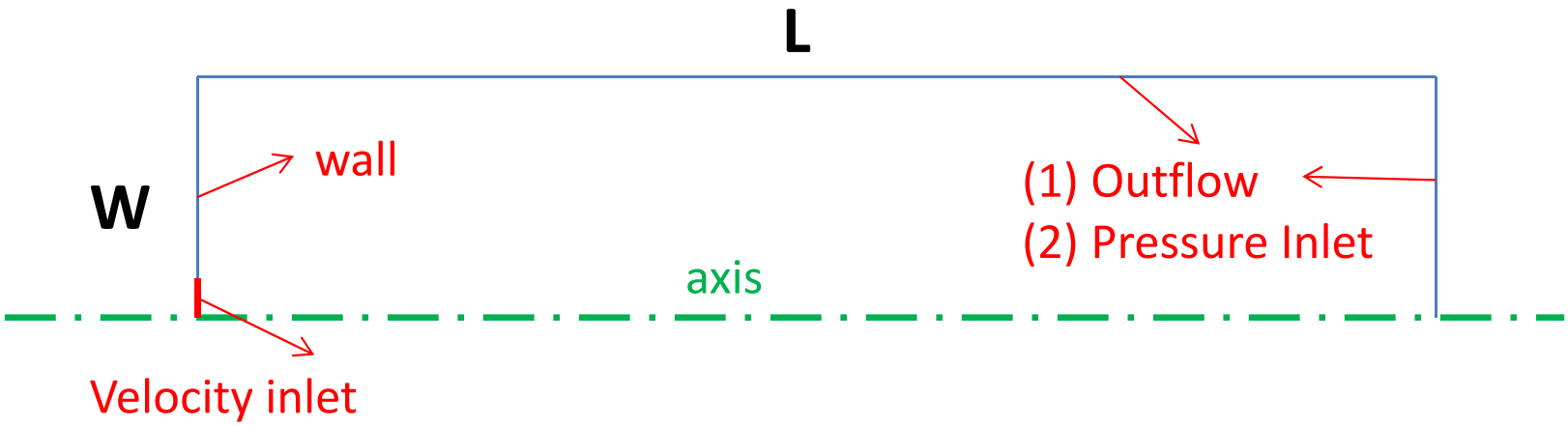
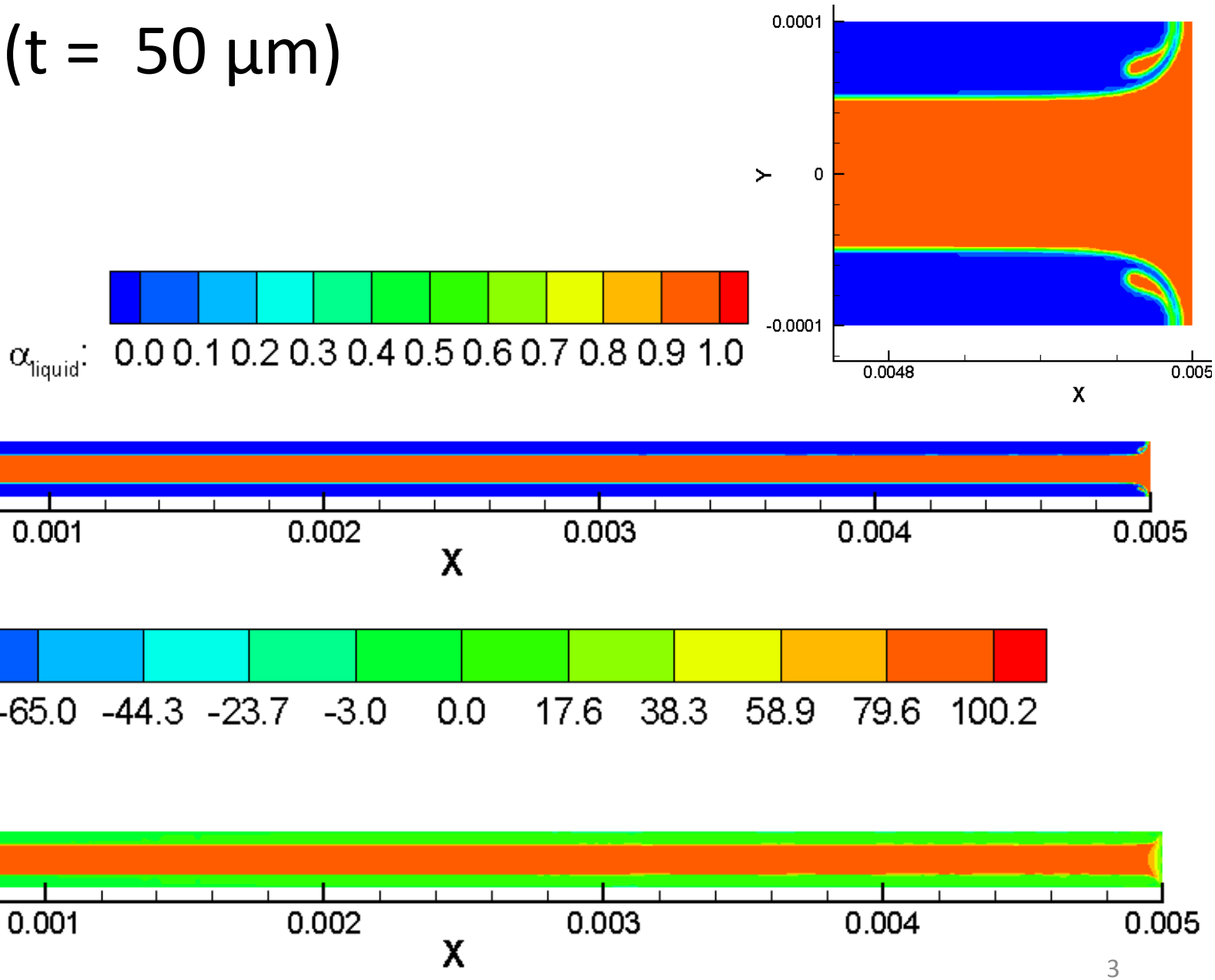
Mesh & Boundary Conditions



Width (W)	Length (L)	Grid # in x (Nx)	Grid # in y (Ny)	Total Grid # (Nt)
5D	50D	212	2120	449,440
4D	50D	170	2120	360,400
3D	50D	127	2120	269,240
2D	50D	85	2120	180,200
1D	50D	42	2120	89,040

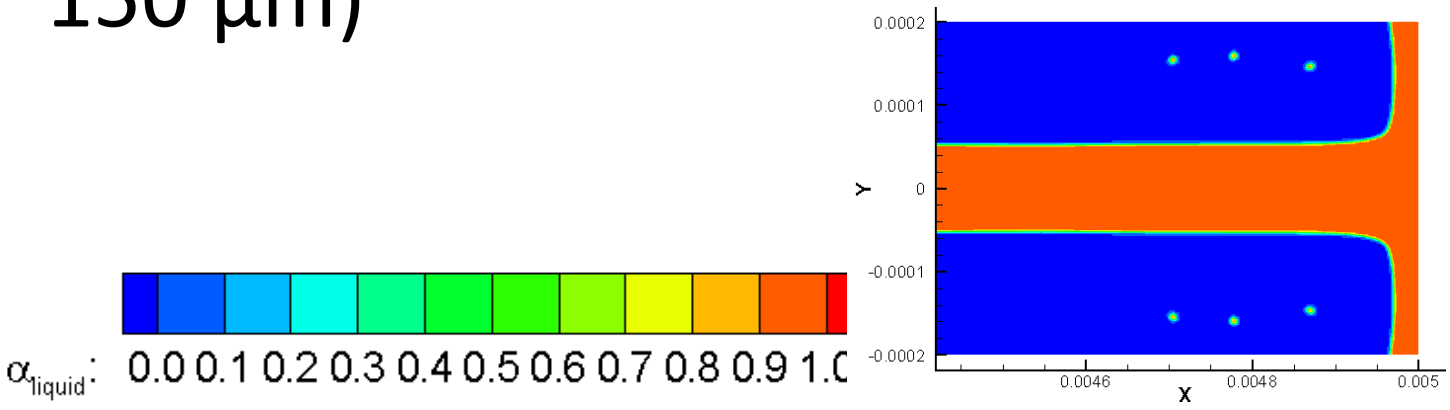
Results---Outflow Boundary Condition

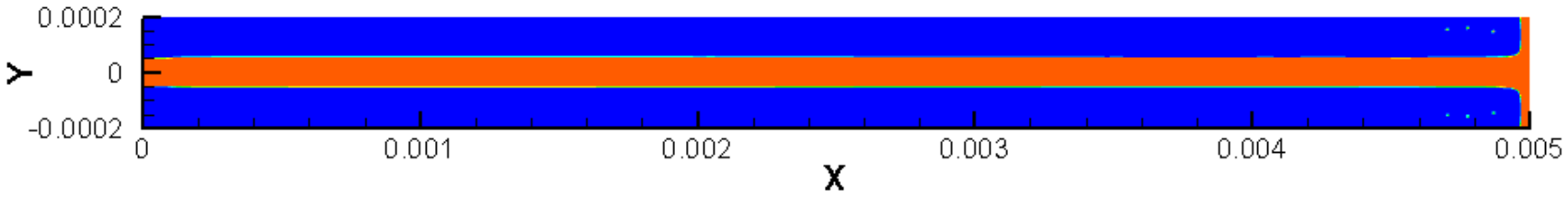
- 1D*50D (t = 50 μm)

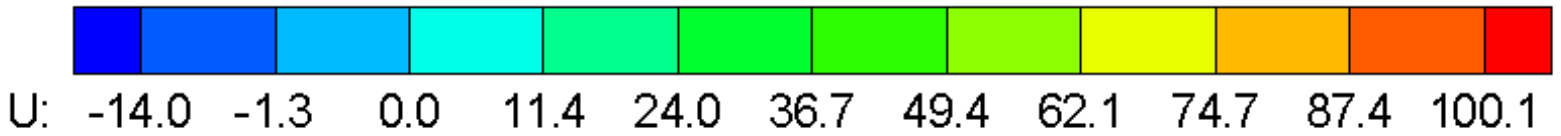


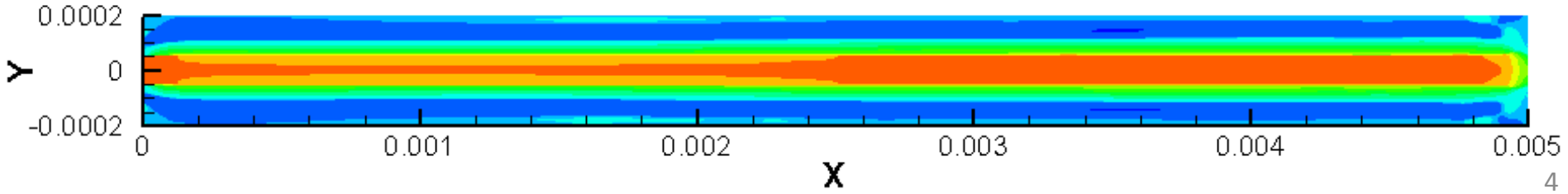
Results---Outflow Boundary Condition

- 2D*50D (t = 150 μm)



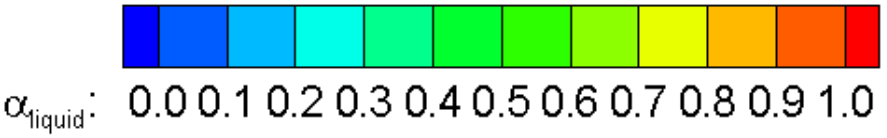


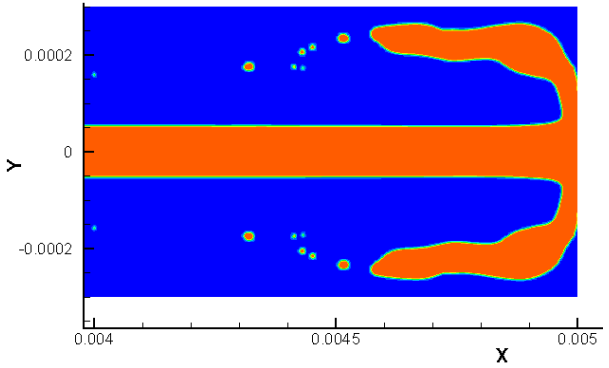


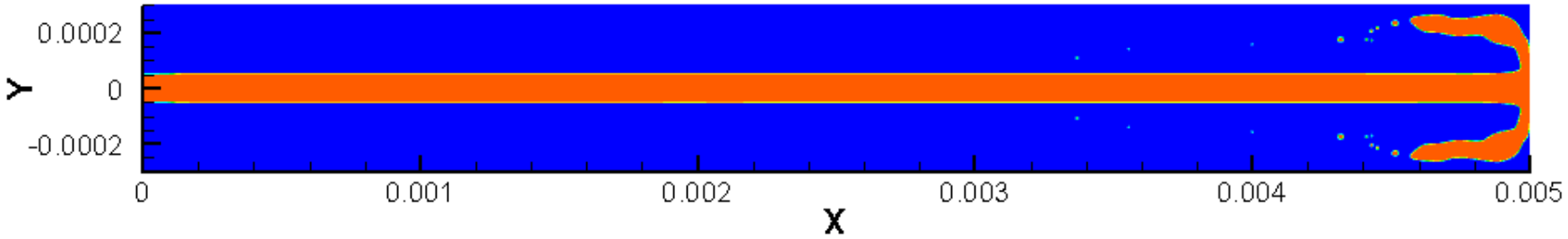


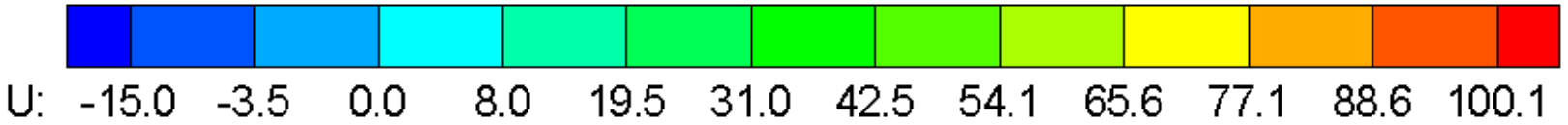
Results---Outflow Boundary Condition

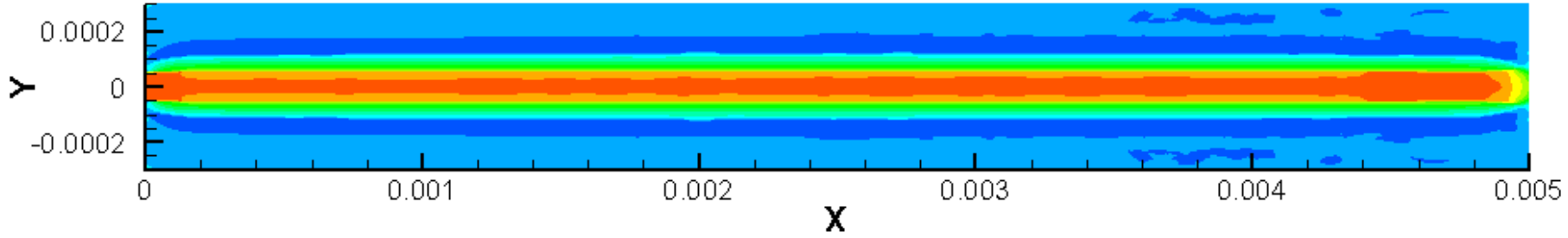
- 3D*50D (t = 150 μm)





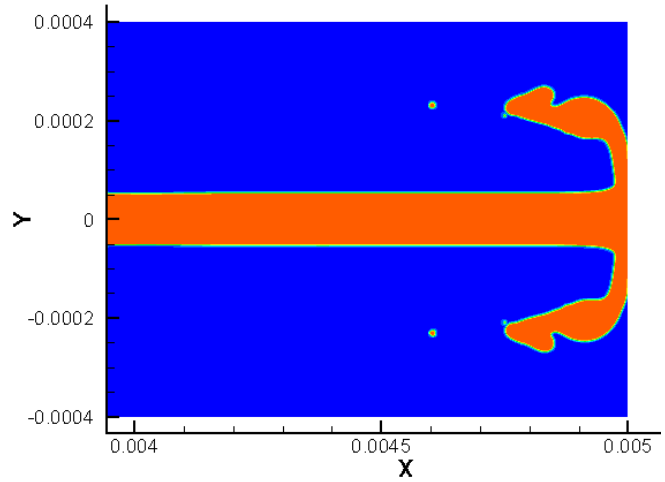


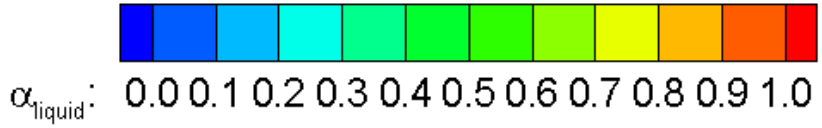


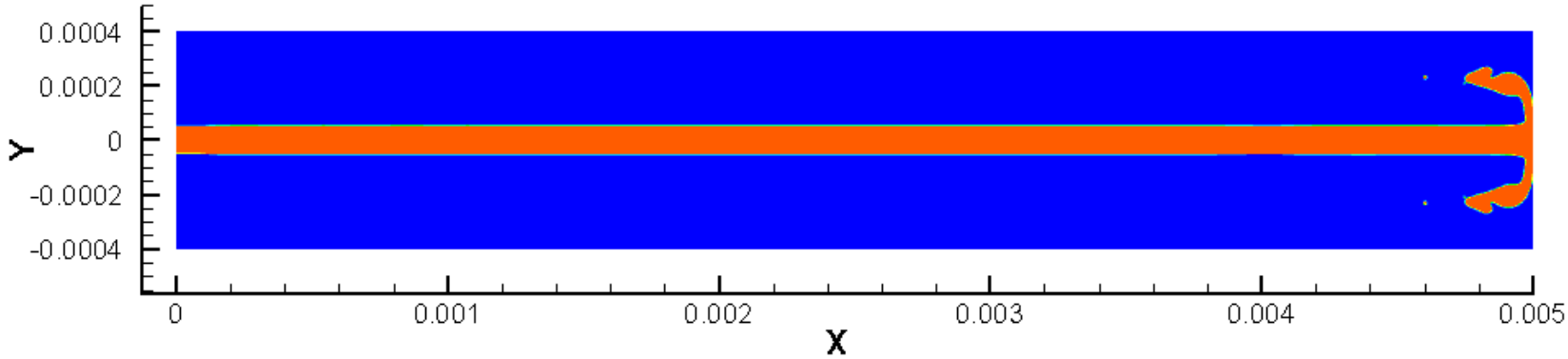


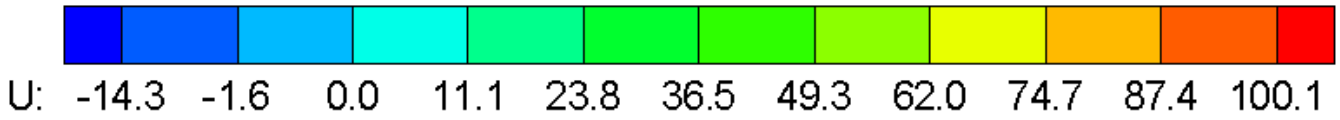
Results---Outflow Boundary Condition

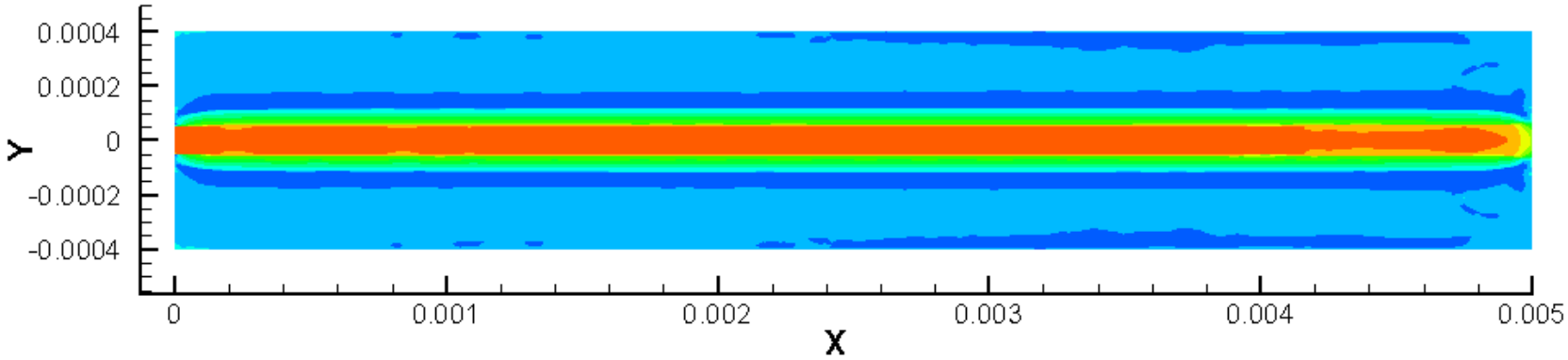
- 4D*50D (t = 150 μm)





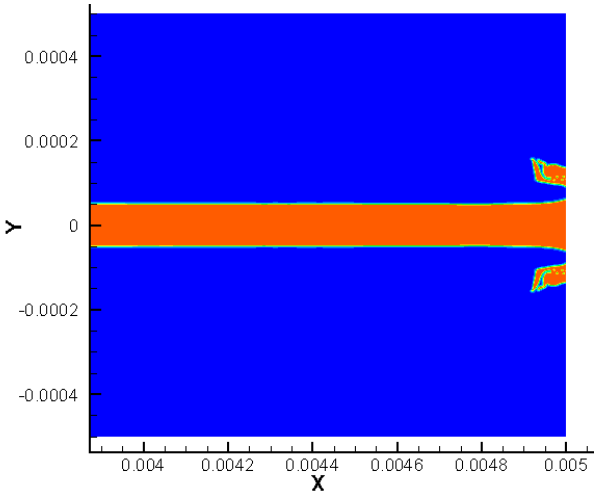


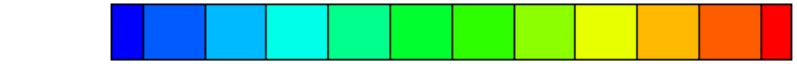


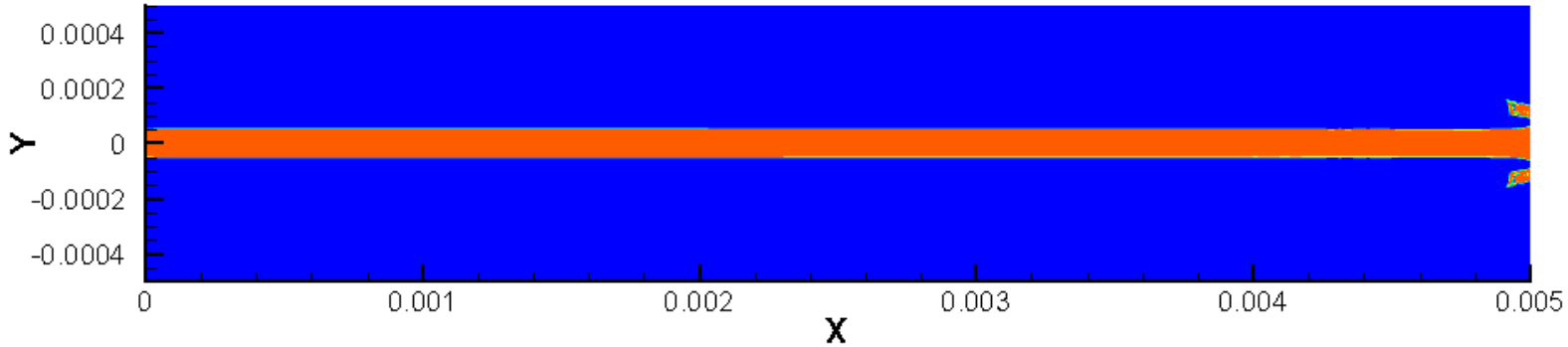


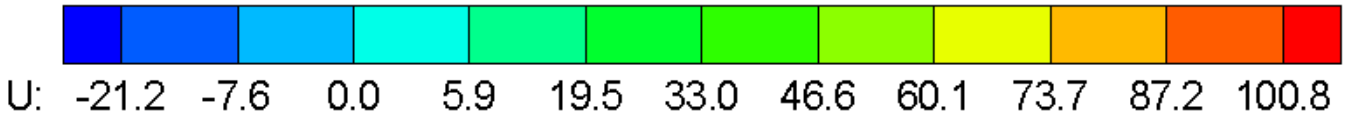
Results---Outflow Boundary Condition

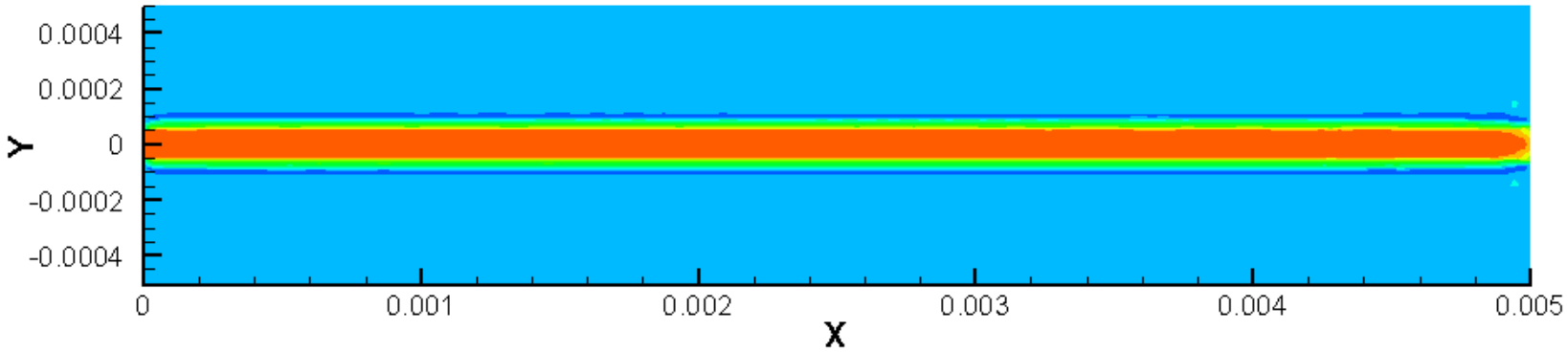
- 5D*50D (t = 150 μm)





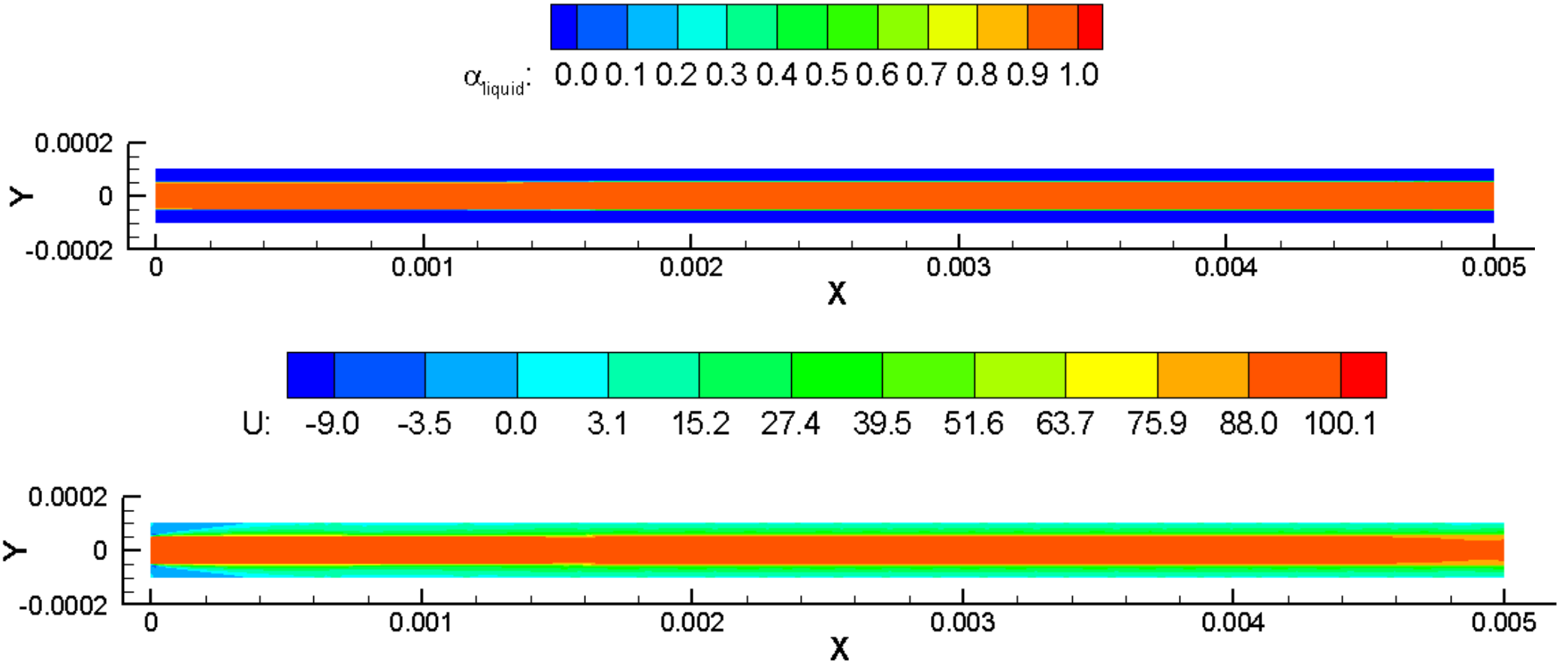






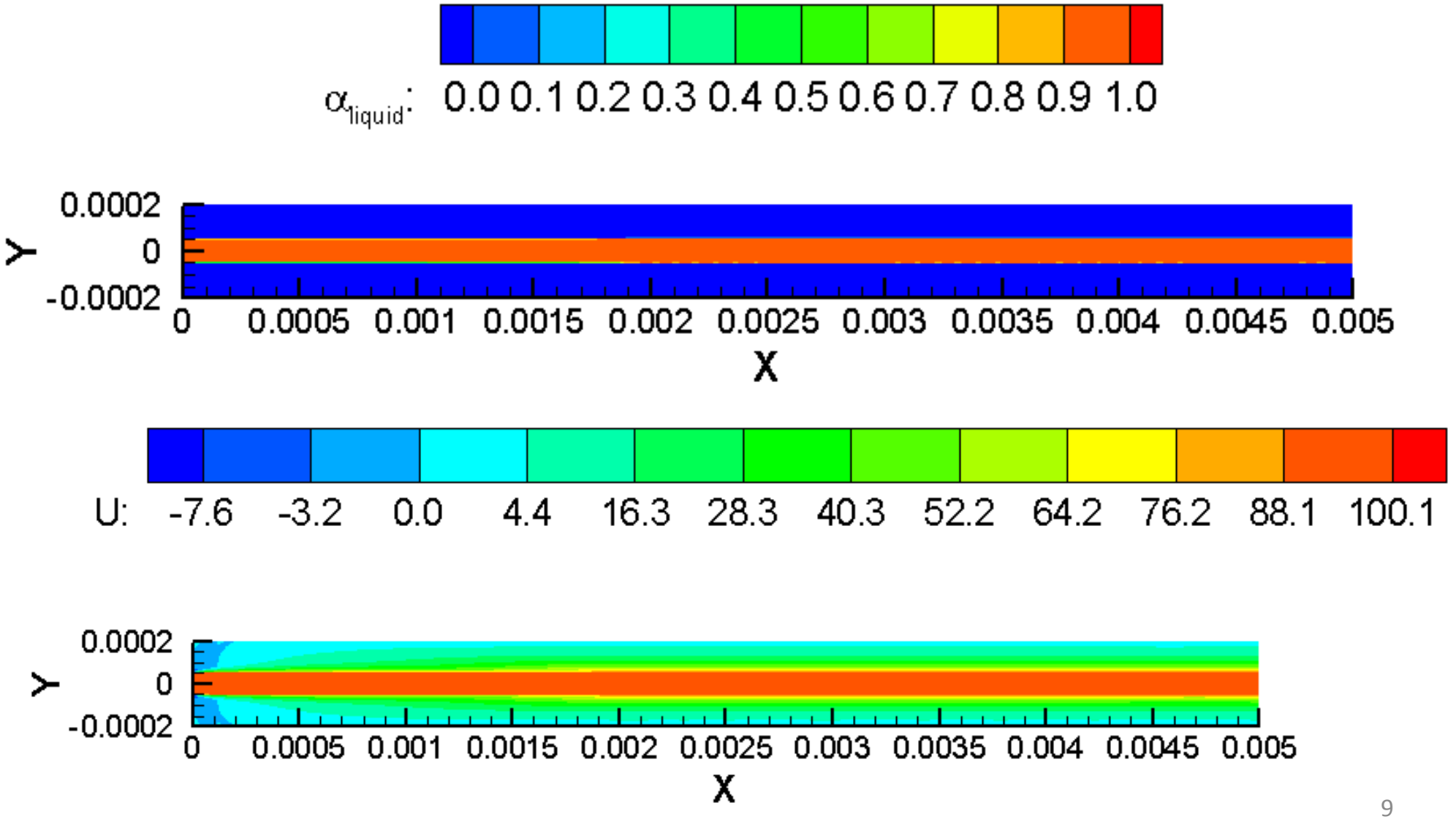
Results---Pressure Boundary Condition

- 1D*50D (t = 0.95 ms)



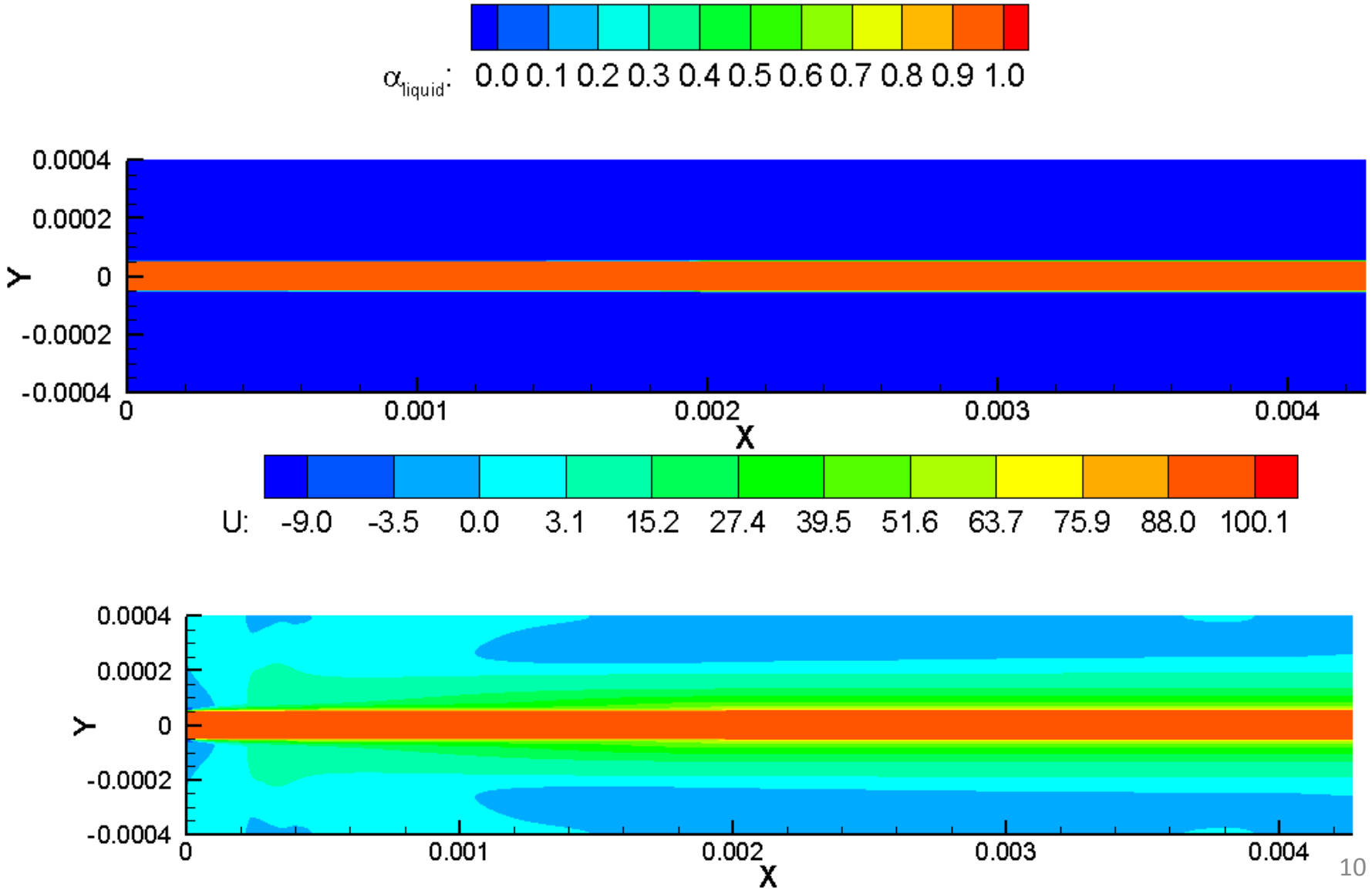
Results---Pressure Boundary Condition

- 2D*50D (t = 1 ms)



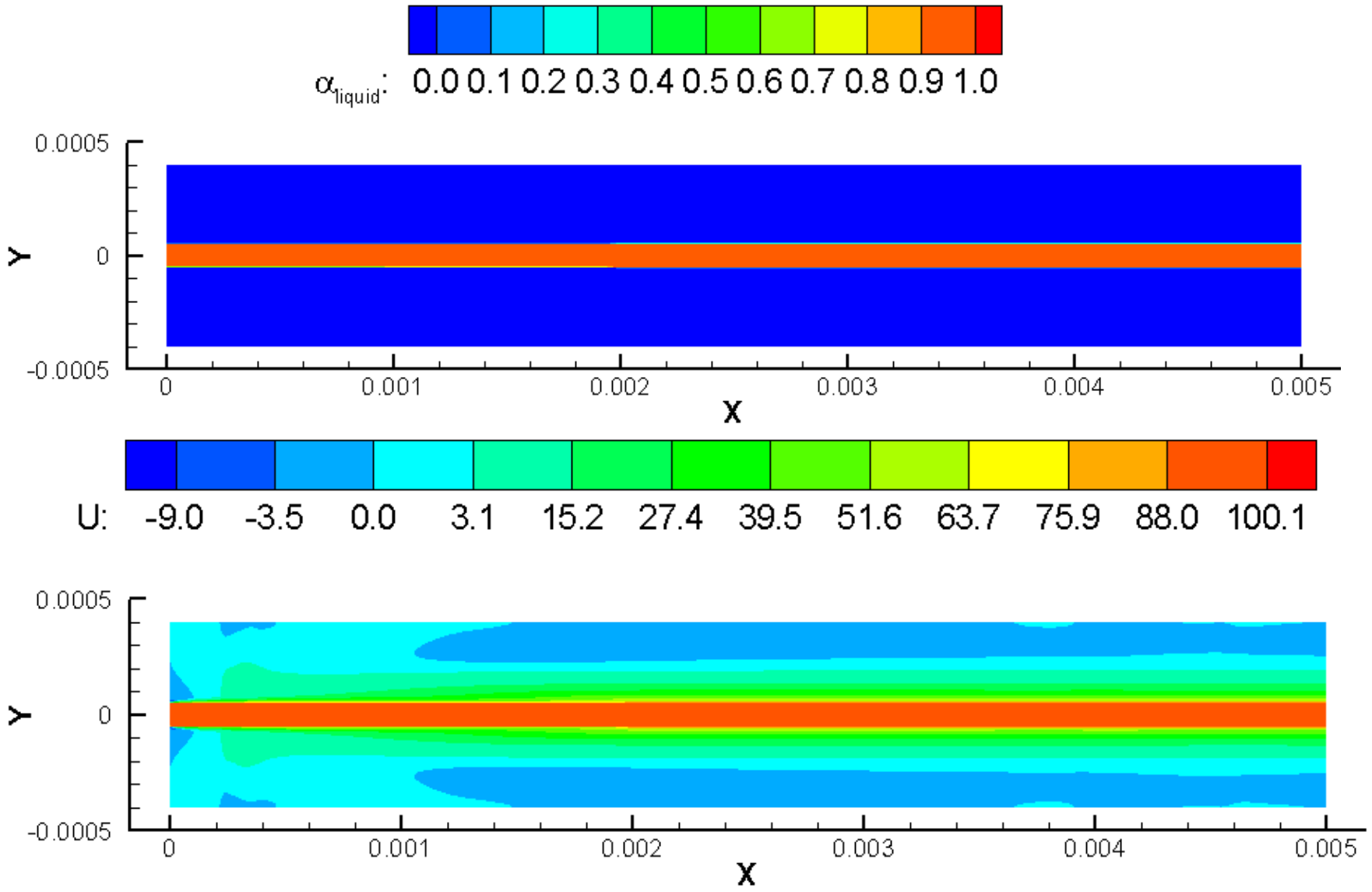
Results---Pressure Boundary Condition

- 3D*50D (t = 95 ms)



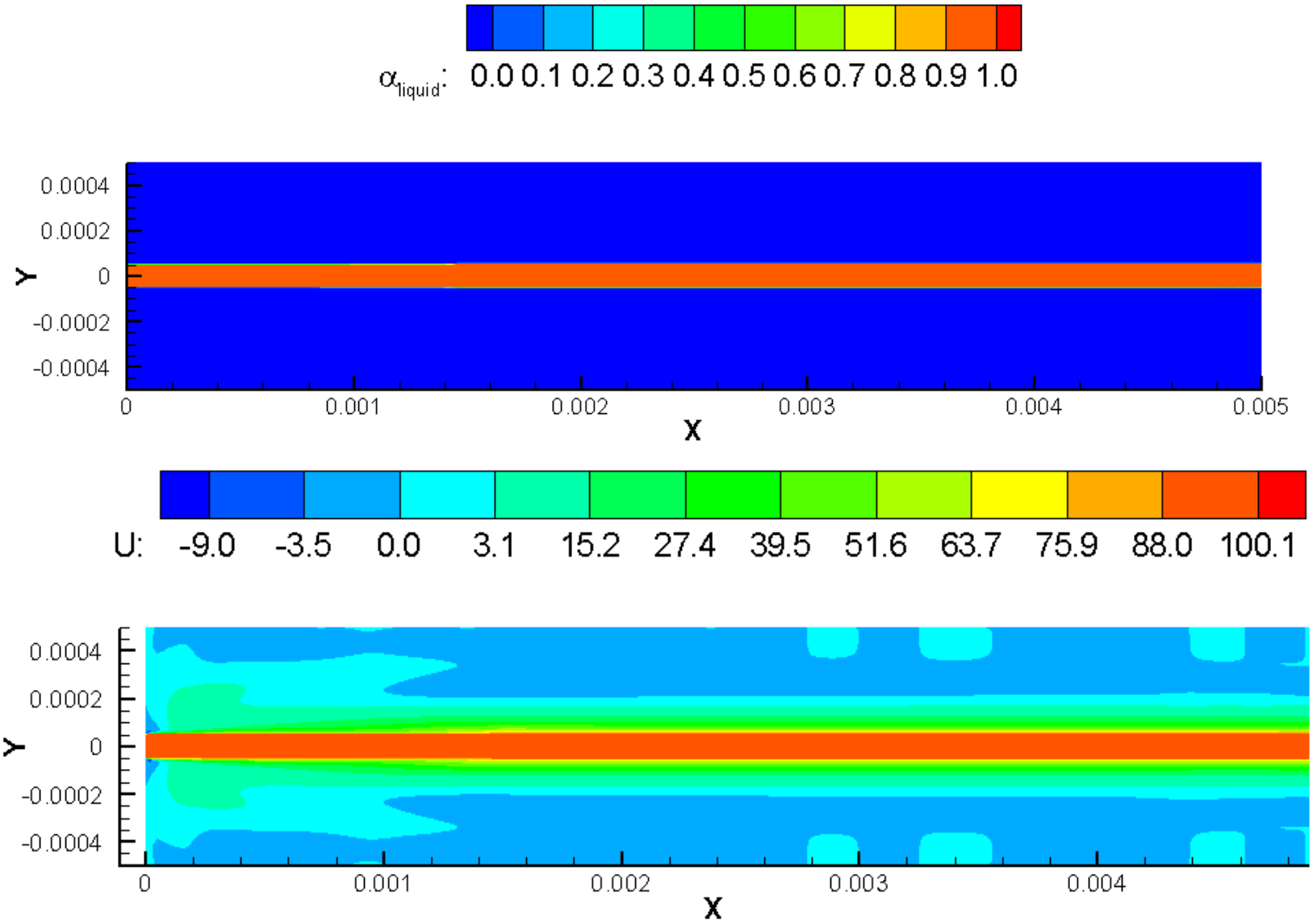
Results---Pressure Boundary Condition

- 4D*50D (t = 1.1 ms)

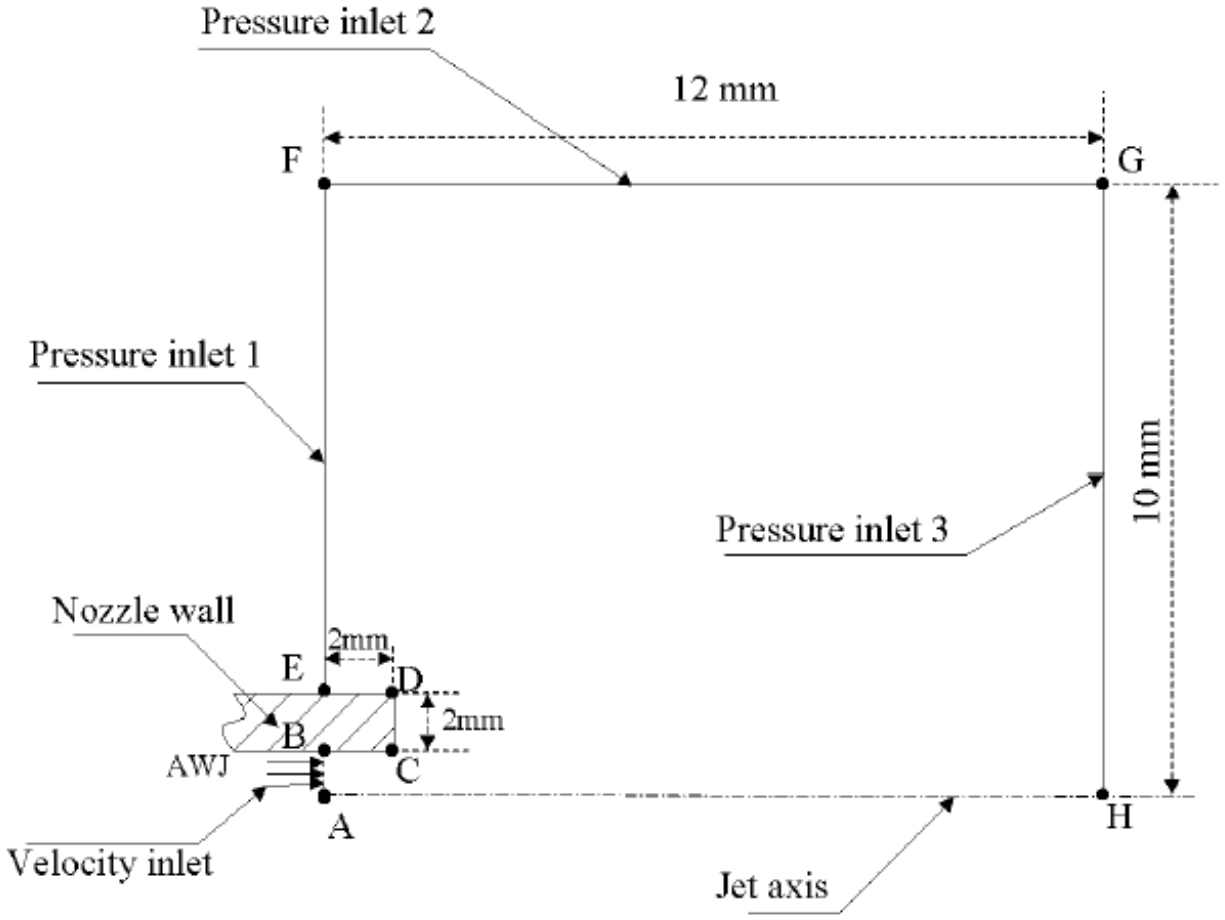


Results---Pressure Boundary Condition

- 5D*50D (t = 0.8 ms)



Reference Of The Pressure Inlet Boundary Condition



H. Liu, J. Wang, R.J. Brown and N. Kelson, **Computational Fluid Dynamic (CFD) Simulation of Ultrahigh Velocity Abrasive Water jet,** Key Engineering Materials, Vols. 233-236 (2003), 477-482.