

Viscous droplet breakage in turbulent flow

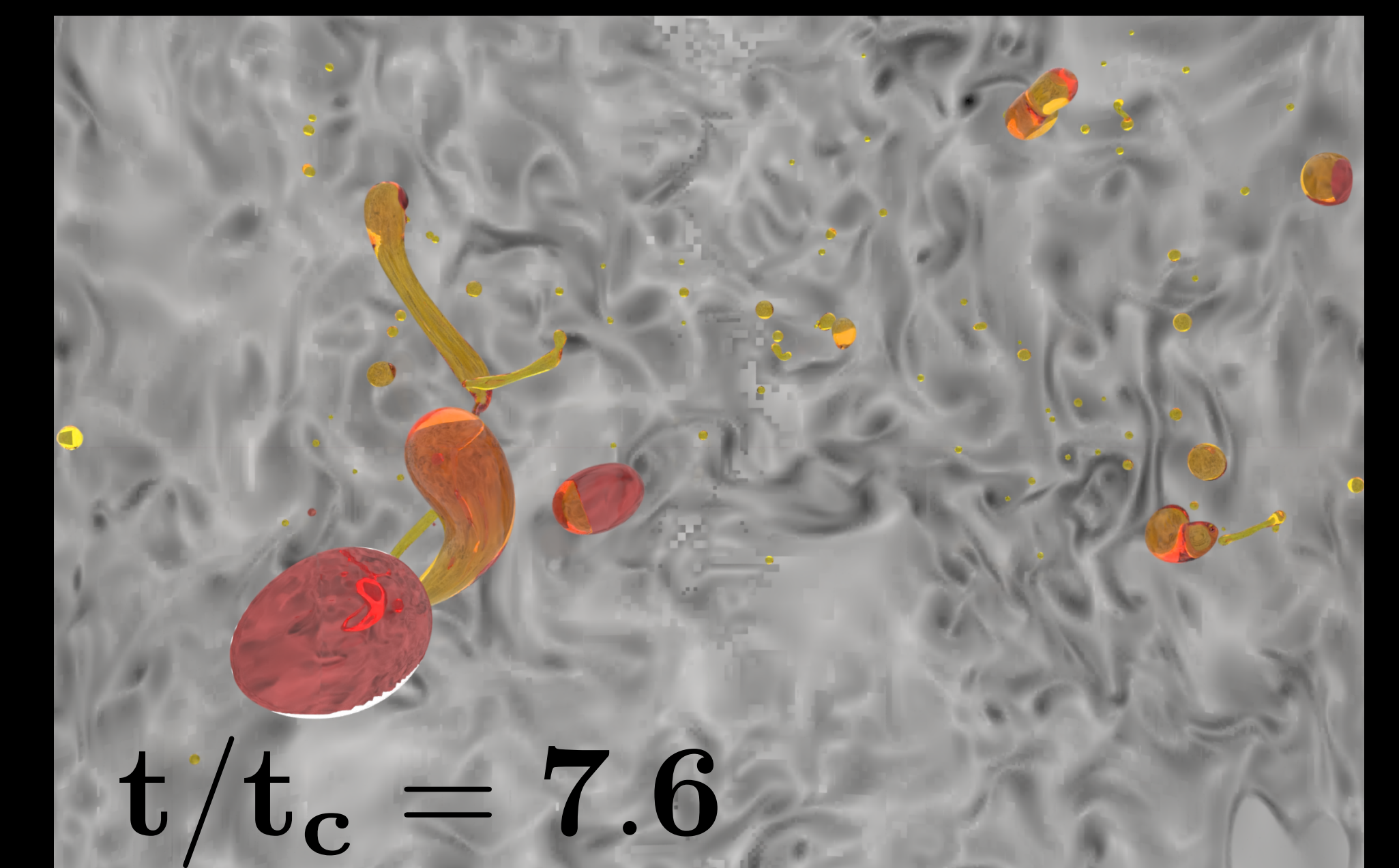
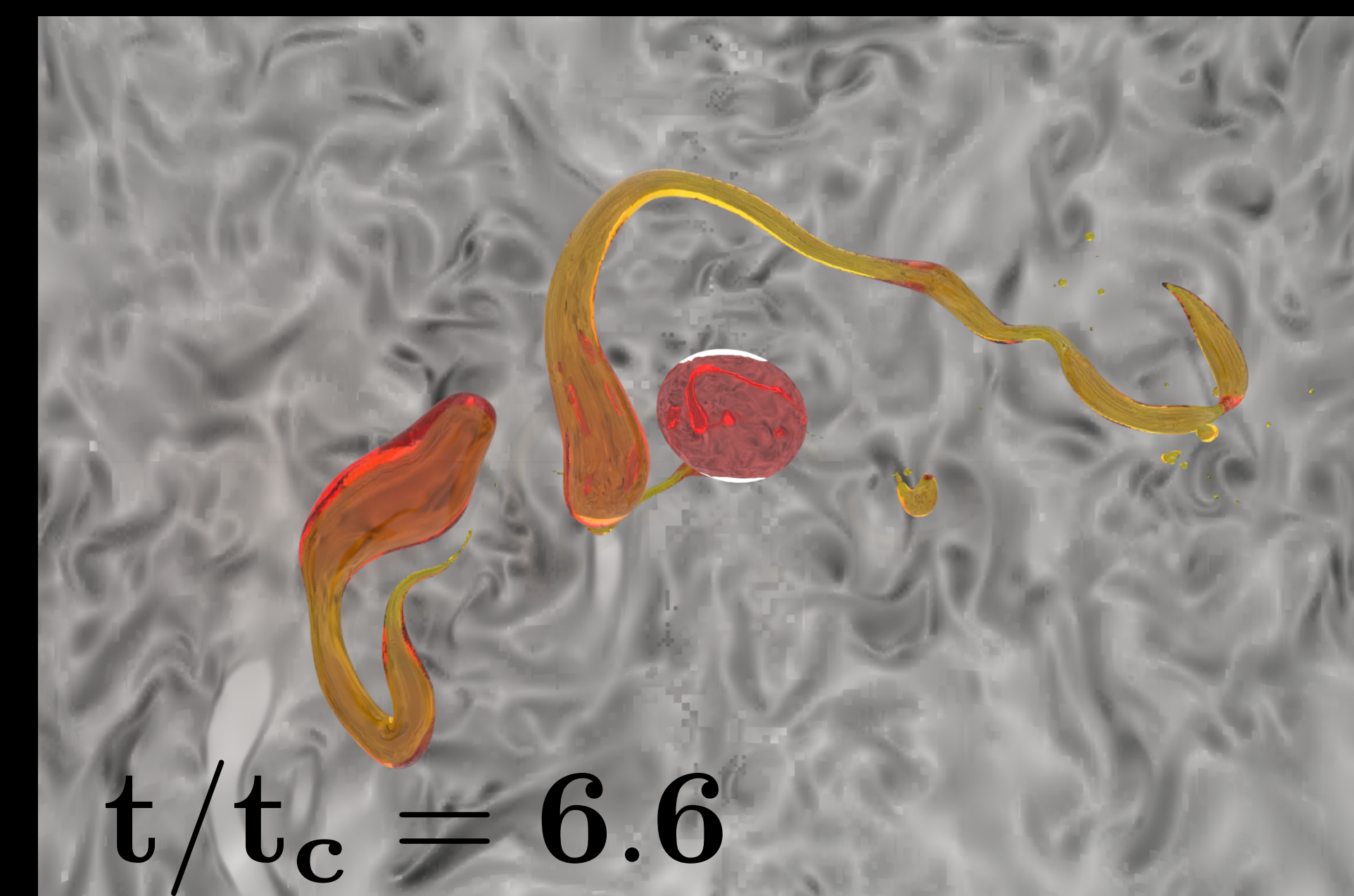
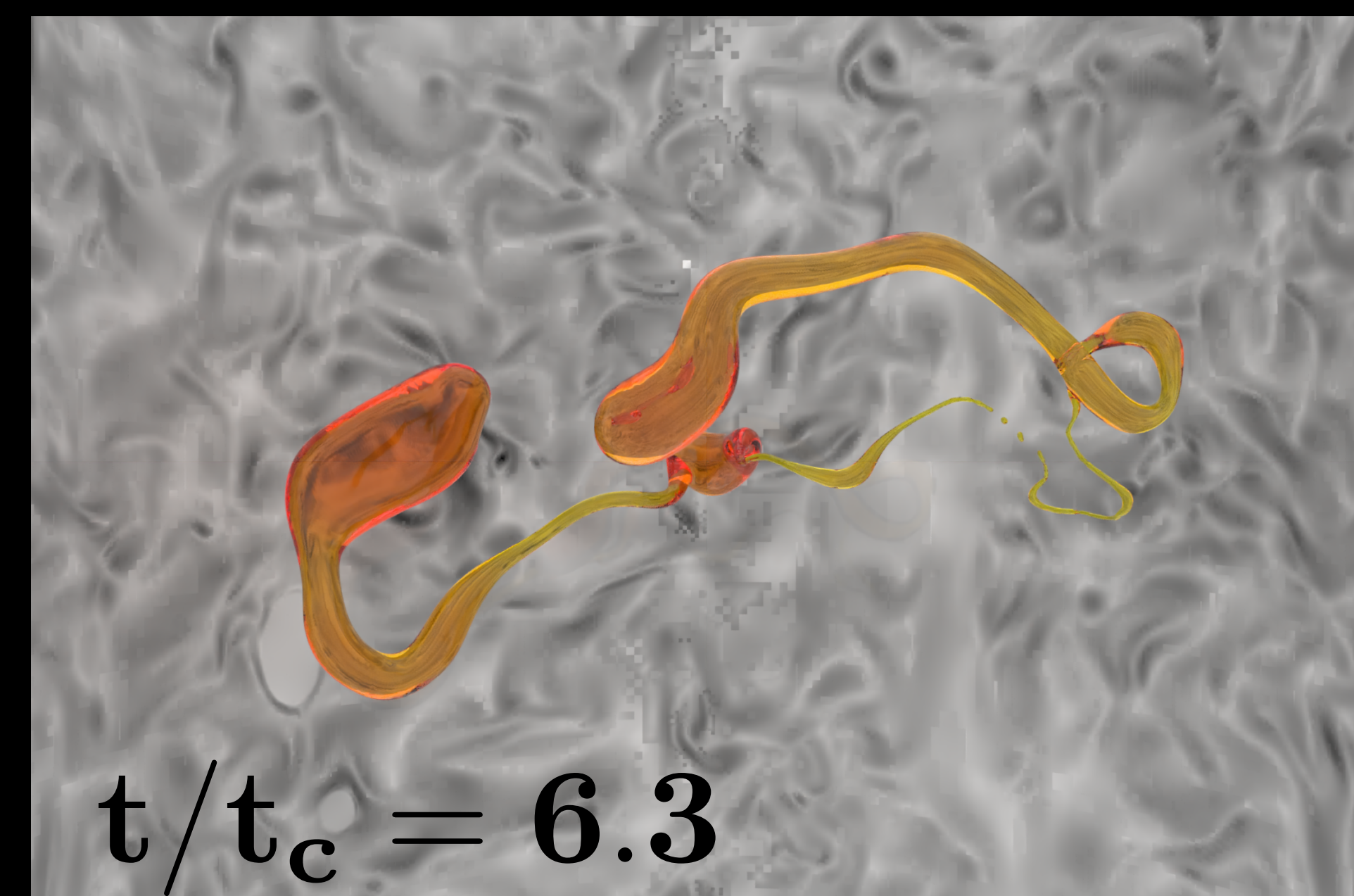
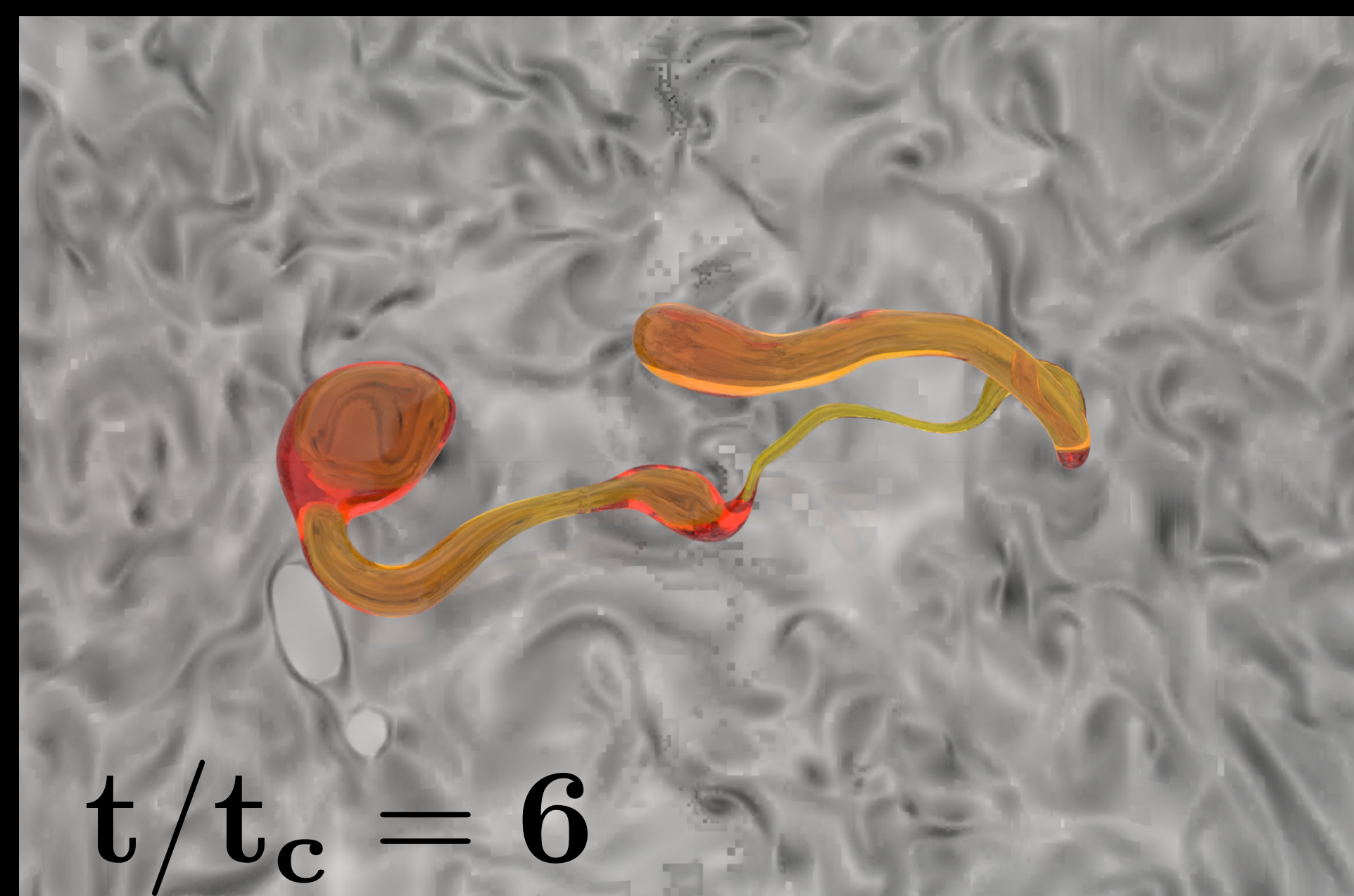
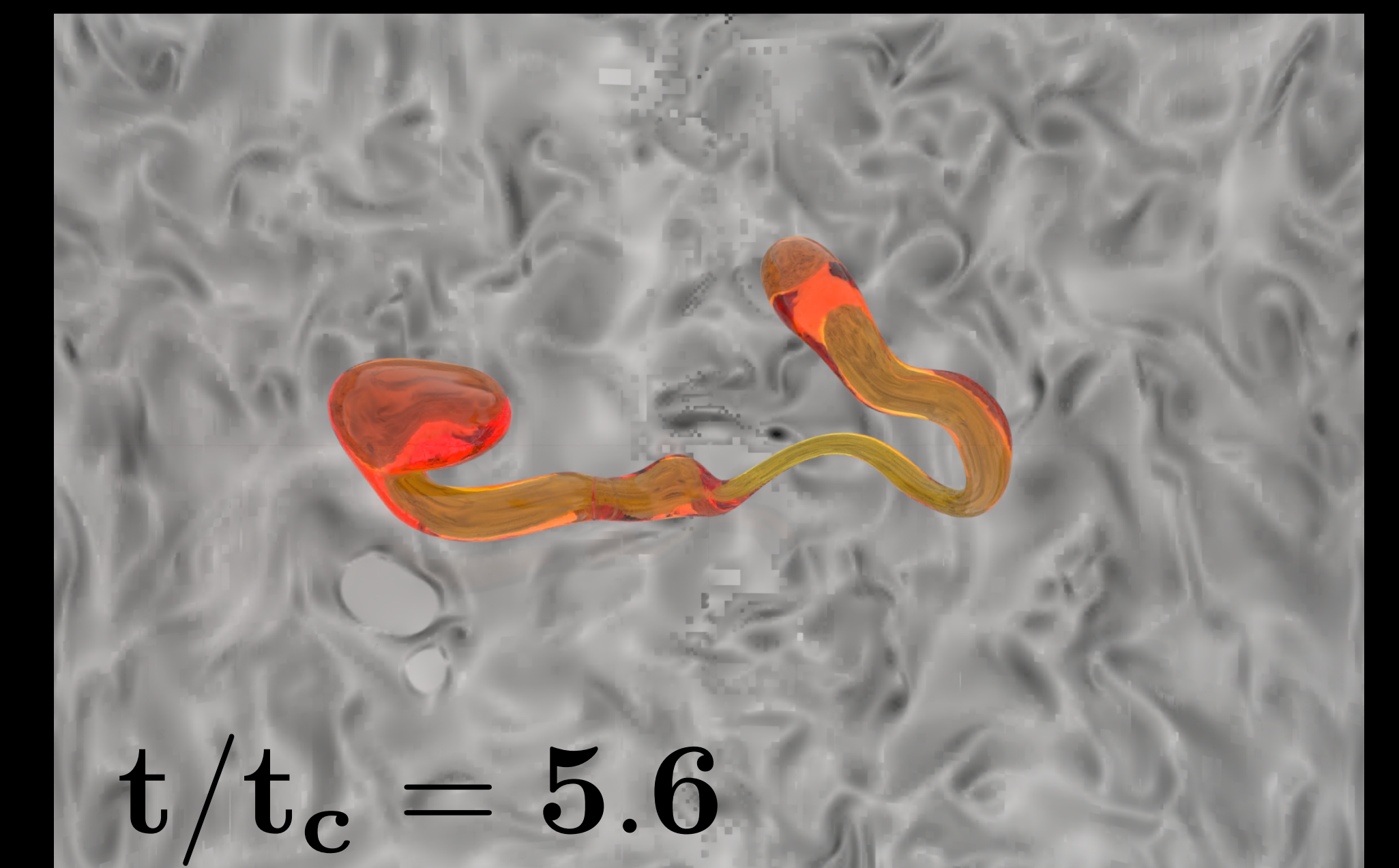
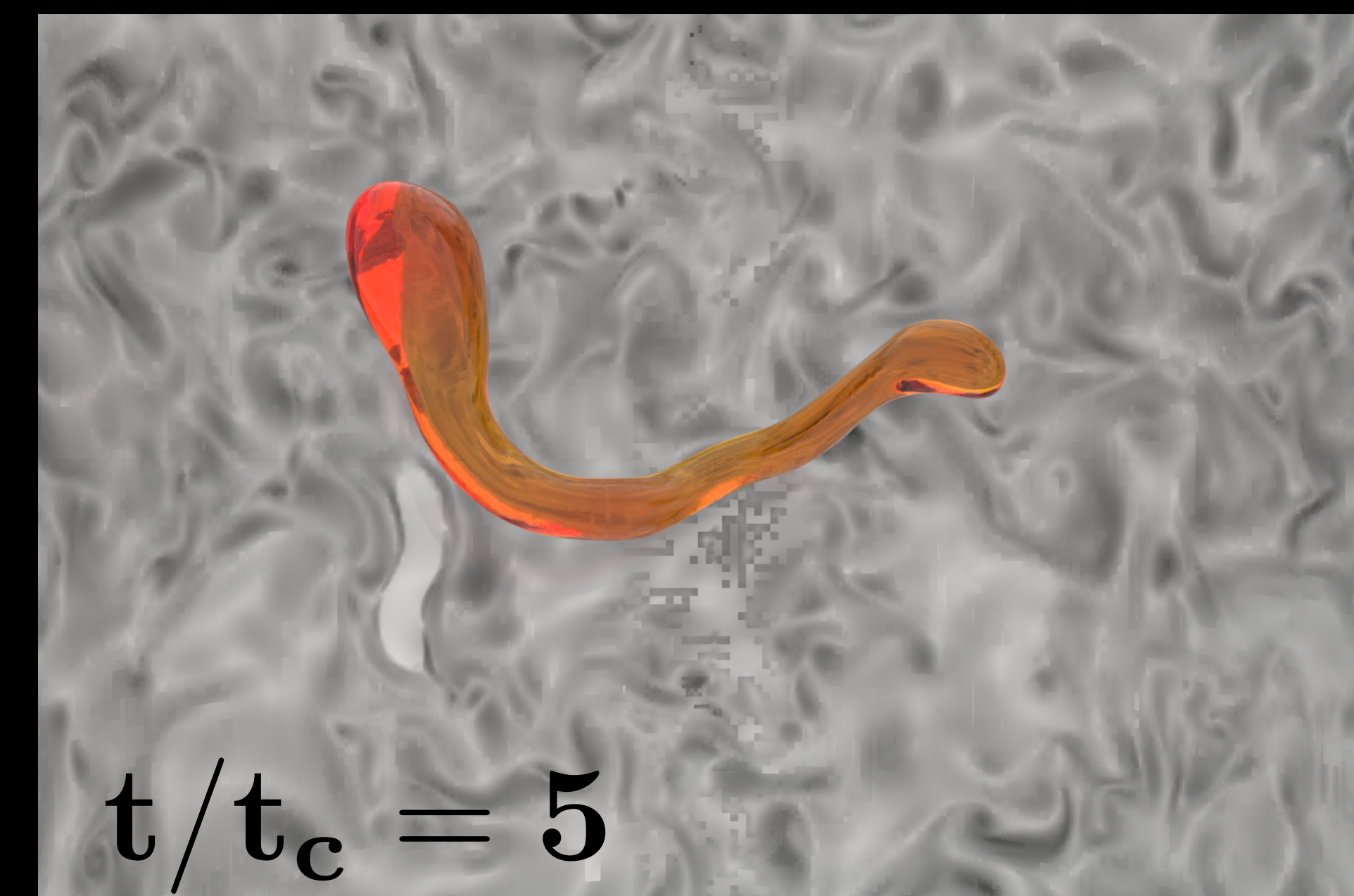
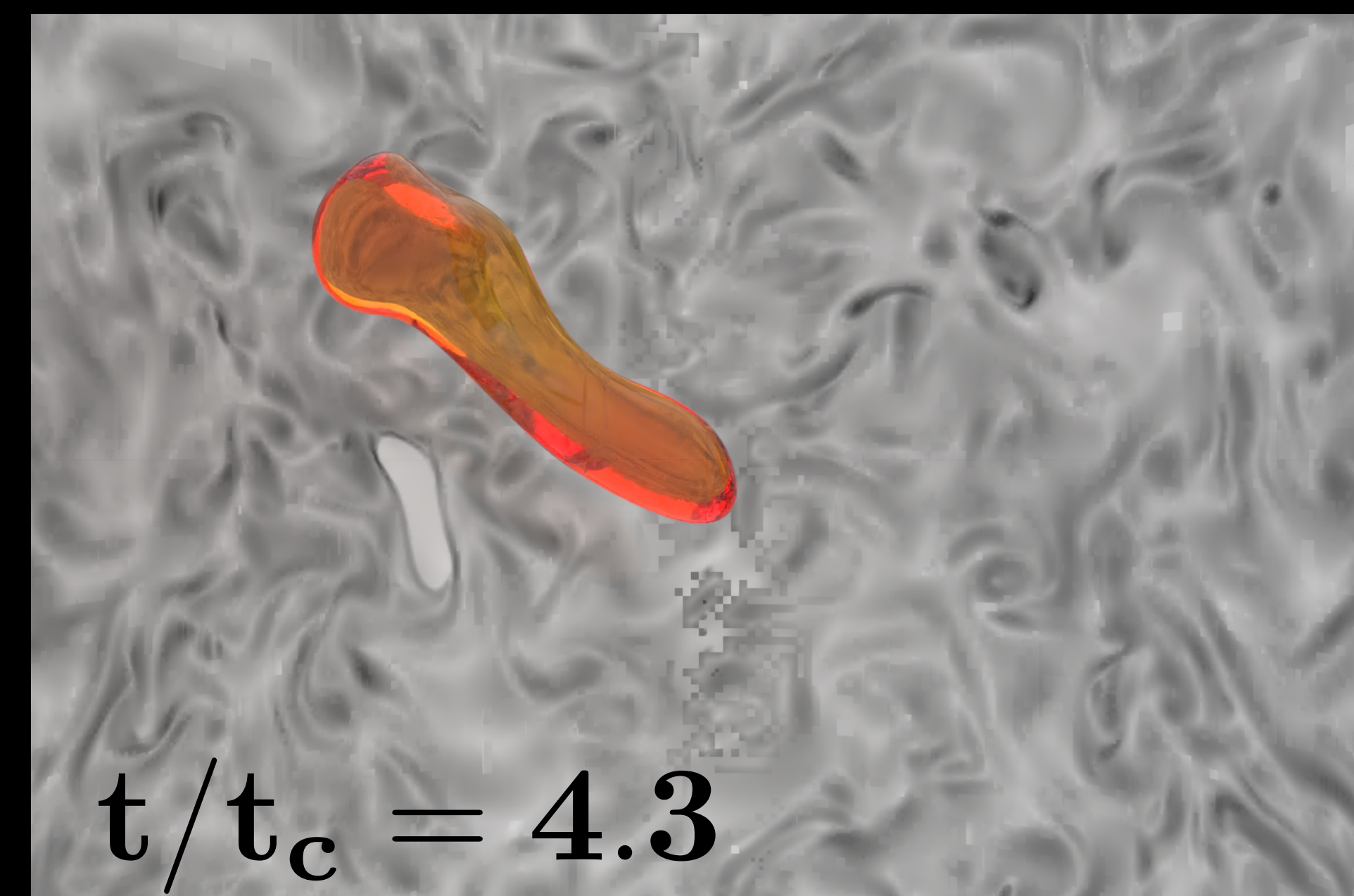
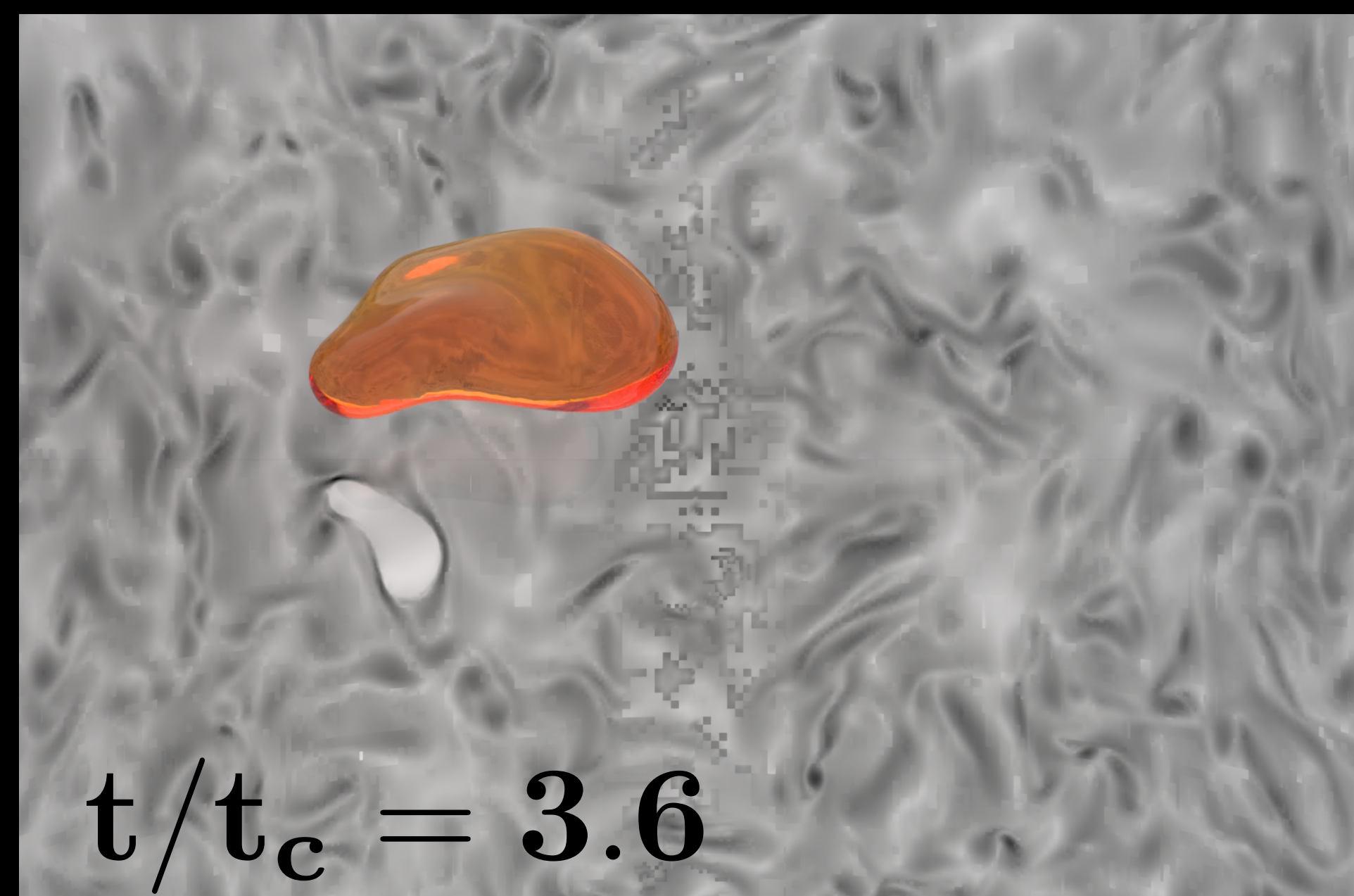
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Direct Numerical Simulations performed using the open source PDE solver Basilisk [Popinet and Collaborators, <http://basilisk.fr>, 2022] for a viscous droplet in a homogeneous isotropic turbulent flow ($Re_\lambda = 150$, $\mu_{\text{drop}}/\mu_{\text{cont}} = 200$). The figures show absolute vorticity on a plane in the background and the time evolution of the droplet's interface. The viscous droplet undergoes elongation before breaking to produce very small child droplets.

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