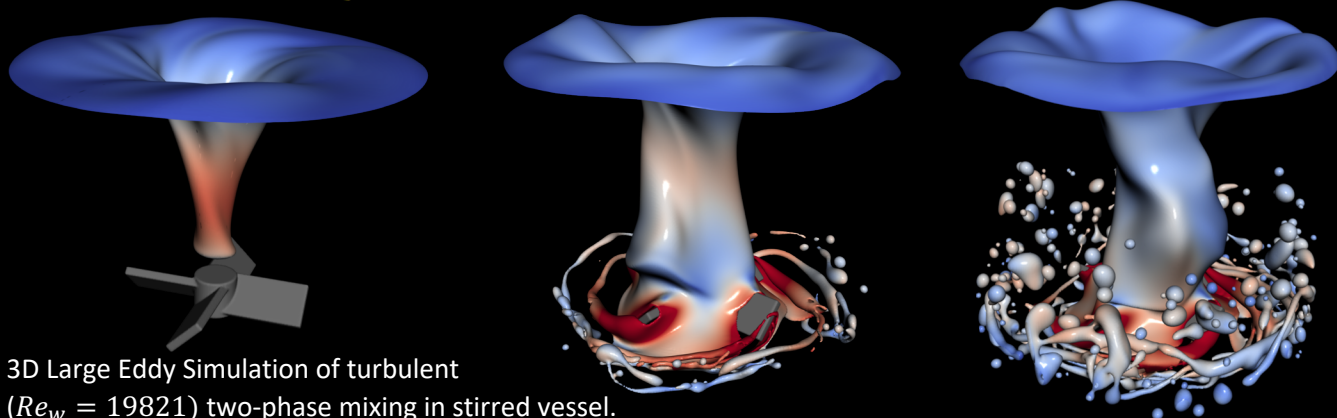
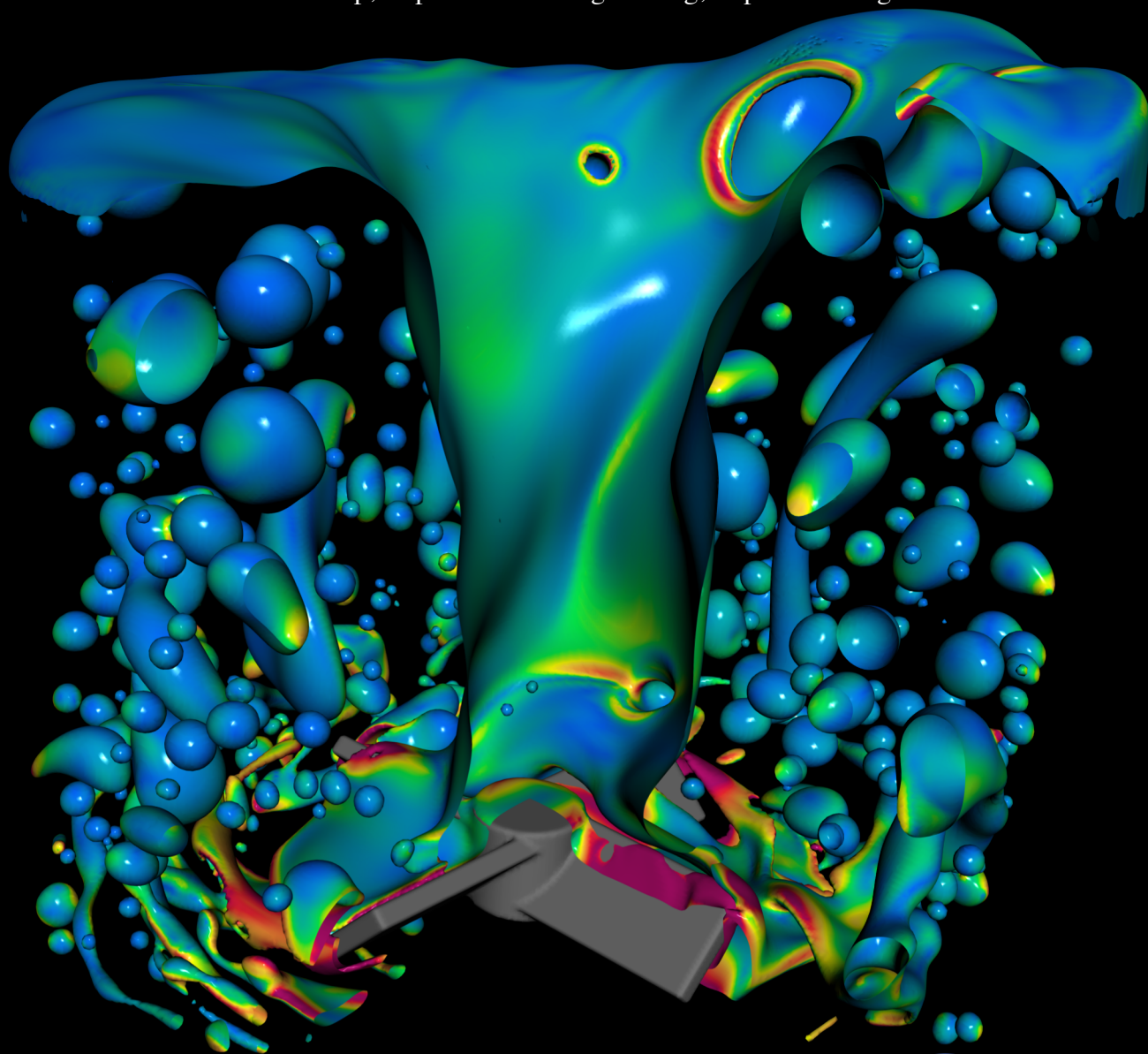


A myriad of interfacial singularities toward a numerical vinaigrette

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3D Large Eddy Simulation of turbulent ($Re_w = 19821$) two-phase mixing in stirred vessel.

As the impeller rotates, the vortices rise to lift the water around the vessel wall, while the oil in the center is pulled downwards. The interface gets stretched further when it reaches the impeller, and long ligaments are created. Ligaments are exposed to the vortices, which they interact with and consequently break into smaller drops.

Top view shows 3/4 dispersed interface coloured by vorticity for $f = 7\text{Hz}$, and figures below presents the temporal evolution colored by the velocity.

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