Droplet formation

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Abstract

I will review studies on atomization starting with the fruitful collaboration with Emil in the early days and ending with recent progres on the 3D Direct Numerical Simulation of the quasi-planar LEGI experiments. Recent comparisons both in 2D and 3D between experiment, theory and simulation will be discussed. It is shown that a linear stability theory, solving the Orr–Sommerfeld equations obtains some success in the comparisons, provided a wake profile is used. The full description of the 3D droplet formation mechanism is still difficult to reach due to the very large range of scales and the complex physics involved.

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