



THE BIFURCATION OF LIQUID DROPS

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The breakup of fluid drops is one of the simplest and most ordinary examples of a hydrodynamic singularity, in which physical quantities diverge in a finite amount of time. These pictures document our experiments and computer simulations of the falling of a water drop falling from a nozzle. In the top panel we show a sequence of photographs^{1,2} in which the drop first breaks at the bottom and then near the nozzle. The second row shows a numerical simulation of the process using modified long-wavelength equations.³