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Jet drops from microbubble rupture YINGXIAN YU, CASEY BARTLETT, JAMES BIRD, Boston University — When a bubble bursts at an interface, the surface energy creates an upward jet that can break into smaller droplets. Extensive research has demonstrated that the size of the droplets depends on the size of the initial bubbles. Yet this research has almost entirely been conducted for bubbles that are larger than 100 microns. As the bubbles approach 100 microns, the linear relation seems to deviate, although there have not been systematic experiments in this regime – mainly because these smaller bubbles and the even smaller droplets that they create have been difficult to visualize in the past. Here we directly measure the jetting phenomena for bubbles that are smaller than 100 micron using a combination of microfluidics and high-speed photography, and we relate our results to theory. Lab Name: Interfacial Fluidic Dynamics Laboratory Faculty Mentor's Name: James C. Bird

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