

Abstract Submitted
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Break-up of an air bubble in water: Memory of azimuthal asymmetry LAURA SCHMIDT, WENDY ZHANG, University of Chicago — Recent experiments showed that the break-up of an air bubble in water retains a detailed memory of asymmetries present in the initial shape [1]. To gain insight into the physical mechanism for this memory, we analyze how non-axisymmetric perturbations change the collapse dynamics of a cylindrical void in water. We also consider the effects of surface tension and viscous dissipation, both of which act to smooth out shape perturbations.

[1] N. Keim et al, cond-mat/0605669

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