

Date: February 3rd

Time: 11:00 AM

Location: Maryland Hall 110

Speaker: Dr. Andrea Prosperetti
Department of Mechanical Engineering
California Institute of Technology

Title: “Two Bubble Stability Problems (+ Bonus Feature)”

Abstract

The talk will summarize some recent work on (1) the instability of the rectilinear path of ascent of bubbles in a liquid, and (2) the loss of axial symmetry of a long (Taylor) bubble rising in a vertical tube. For the first problem a linear stability analysis carried out computationally suggests a mechanism which may be generic and applicable to any axisymmetric shape translating along the axis of symmetry. A simplified analysis elucidates the nature of the instability in the second problem.

As for the bonus feature...