

Particle Tracking Velocimetry measurements on the flow field around a collapsing cavitation bubble

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The velocity field in the vicinity of a laser created cavitation bubble is measured by means of Particle Tracking Velocimetry (PTV). The method is tested by comparison of the PTV results for a spherical bubble with a numerical model fitted to the radius-time curve measured from high-speed photographs of the bubble. The PTV method and high-speed photography is then used to investigate the collapse of a bubble near a solid boundary. These results are compared with the outcome of a boundary-integral simulation.