



## The UK's National Supercomputing Service

### Shock wave interaction with cavitation bubble

This image is from a simulation showing the Interaction of a shock wave moving with Mach=2.4 and a gas-filled water bubble. These types of cavitation-bubbles can be found in several settings, ranging from our bloodstream to fuel droplets in hypersonic scramjet engines. Understanding the physical processes that occur during this interaction, can lead to more efficient targeted drug delivery, faster detection of neoplastic diseases through ultrasound imaging, and better protection from cavitation erosion and surface damage of hypersonic scramjet engines.

Panagiotis Tsoutsanis (Centre for Computational Engineering Sciences – Cranfield University)

**Image Competition: Video Entry Winner 2021**



[www.archer2.ac.uk](http://www.archer2.ac.uk)

.....

.....

.....

.....