

Supplementary material

Dynamic Mode Decomposition of inertial particle caustics in Taylor-Green flow

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The supplemental material contains two videos. The caption corresponding to each of the videos are given below:

C.1: Vid1.mp4

Caption: The video shows the evolution of $St=1$ inertial particles in a Taylor-Green flow. The colormap in the background represents the strength of the vorticity field. Figure. 1 in the manuscript shows a snapshot of the particle distribution at $t = 750 \Delta t$.

C.2: Vid2.mp4

Caption: To demonstrate the correlation between the particle caustics and the DMD, we overlay the evolution of particles on top of the DMD obtained for a bi-disperse system. Notice that at 650th iteration the caustic front and the DMD fronts match.