

Abstract Submitted  
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**Ultrafast Phase-Contrast Imaging Study of Finite-time Hydrodynamic Singularities** YUJIE WANG, Argonne National Lab — Most of the non-linearity induced hydrodynamic singularities are transient and requires high-speed imaging to be studied. There exist some intrinsic problems of visible-light imaging on fluid mechanical research.. The key advantage of x-ray phase-contrast-imaging is that it is interface-based technique and the boundaries are highlighted naturally. It is a highly penetrative technique in which all complex structures along the path will be picked up. Additionally, it is naturally immune of the complexity of multiple scattering and strong optical reflection or refraction.

Yujie Wang  
Argonne National Lab

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