

Abstract Submitted
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Scaling behavior for vorticity “drift” from high-gradient interfaces in Richtmyer-Meshkov flows NORMAN ZABUSKY, GAOZHU PENG, Dept. MAE Rutgers University — It is well known that vorticity is generated on high-gradient interfaces by *vortex-acceleration* baroclinic processes during early-to-intermediate times of Richtmyer-Meshkov (RM) evolutions. The accumulated circulation after six multivalued times can be much larger than that deposited by the initial shock passage. These vorticity layers are observed to *drift* away from the interface into the lower density domain. We quantify and scale the circulation *drift rate* as well as cascade to small scales for the two and three dimensional inviscid and viscous RM evolutions at various Atwood and Mach numbers. If time permits we will discuss these behaviors for Rayleigh-Taylor flows.

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