

Abstract Submitted  
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**Level Set Jet Schemes for Stiff Advection Equations** DAVID SALAC, EBRAHIM KOLAHDOUZ, University at Buffalo SUNY — The stable and accurate modeling of stiff multiphase fluid systems represent a major challenge. In this talk strategies to employ the Jet Level Set scheme of Nave et. al. in stiff advection problems, such as lipid bilayer vesicle simulations, are presented. The rational and sample implementations of these methods will be shown. The results will demonstrate that the strict time-step restrictions can be alleviated without greatly reducing the accuracy of the method.

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