## Accepted Manuscript

Algebraic Coupled Level Set-Volume of Fluid Method for Surface Tension Dominant Two-Phase Flows

Majid Haghshenas, James Wilson, Ranganathan Kumar

 PII:
 S0301-9322(16)30529-8

 DOI:
 10.1016/j.ijmultiphaseflow.2016.12.002

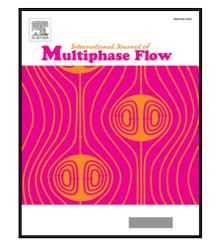
 Reference:
 IJMF 2513

To appear in: International Journal of Multiphase Flow

Received date:31 August 2016Revised date:8 November 2016Accepted date:1 December 2016

Please cite this article as: Majid Haghshenas, James Wilson, Ranganathan Kumar, Algebraic Coupled Level Set-Volume of Fluid Method for Surface Tension Dominant Two-Phase Flows, *International Journal of Multiphase Flow* (2016), doi: 10.1016/j.ijmultiphaseflow.2016.12.002

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Highlights

- Volume of fluid method is used for one-way coupling with the Level Set function to improve the accuracy in the simulation of interfacial capillary flows such as the Rayleigh-Taylor instability and droplet impact on a liquid pool.
- Computational efficiency is enhanced through the use of the advected Level Set field, serving as an initial condition for the reinitialization procedure.
- Level set advection reduces spurious currents and predicts capillary pressure accurately.

A

Download English Version:

## https://daneshyari.com/en/article/4995009

Download Persian Version:

https://daneshyari.com/article/4995009

Daneshyari.com