Accepted Manuscript

Estimation of curvature from volume fractions using parabolic reconstruction on two-dimensional unstructured meshes

Fabien Evrard, Fabian Denner, Berend van Wachem

 PII:
 S0021-9991(17)30694-0

 DOI:
 https://doi.org/10.1016/j.jcp.2017.09.034

 Reference:
 YJCPH 7607

To appear in: Journal of Computational Physics

12 June 2017 5 September 2017

20 September 2017

Received date:

Revised date: Accepted date:



Please cite this article in press as: F. Evrard et al., Estimation of curvature from volume fractions using parabolic reconstruction on two-dimensional unstructured meshes, *J. Comput. Phys.* (2017), https://doi.org/10.1016/j.jcp.2017.09.034

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

- A method for the estimation of interface curvature from volume-fractions is proposed
- The method is based on local parabolic reconstructions of the interface
- Equivalence with height-functions is proven for well-posed Cartesian configurations
- Rate of convergence of the curvature errors is the same as height-functions
- Rate of convergence of the curvature errors is identical for all mesh types

Download English Version:

https://daneshyari.com/en/article/6929355

Download Persian Version:

https://daneshyari.com/article/6929355

Daneshyari.com