Accepted Manuscript

High-order finite element methods for moving boundary problems with prescribed boundary evolution

Evan S. Gawlik , Adrian J. Lew

PII:	S0045-7825(14)00153-4
DOI:	http://dx.doi.org/10.1016/j.cma.2014.05.008
Reference:	CMA 10242

To appear in: Comput. Methods Appl. Mech. Engrg.

Received date: 30 August 2013 Revised date: 2 May 2014 Accepted date: 7 May 2014

Volume 273, Published 1 May 2014	155N 3545-78
Computer methods in applied mechanics and engineering	Editors 7.45 mg/m Anto TA Uta Anto TA Uta Anto TA Uta Anto TA Uta Anton Grave Anton Grave Anton Grave Anton Grave
engineering	

Please cite this article as: E.S. Gawlik, A.J. Lew, High-order finite element methods for moving boundary problems with prescribed boundary evolution, *Comput. Methods Appl. Mech. Engrg.* (2014), http://dx.doi.org/10.1016/j.cma.2014.05.008

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 framework for building high-order methods for moving boundary problems is presented.
- Methods are built by blending standard elements with off-the-shelf time integrators.
- A universal mesh is used to maintain an exact representation of the moving domain.
- Unlike ALE schemes, the universal mesh can handle large domain deformations easily.

Download English Version:

https://daneshyari.com/en/article/6917585

Download Persian Version:

https://daneshyari.com/article/6917585

Daneshyari.com