

Accepted Manuscript

An embedded strategy for the analysis of fluid structure interaction problems

Santiago D. Costarelli, Luciano Garelli, Marcela A. Cruchaga, Mario A. Storti, Ronald Ausensi, Sergio R. Idelsohn

PII: S0045-7825(15)00353-9

DOI: <http://dx.doi.org/10.1016/j.cma.2015.11.001>

Reference: CMA 10744

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

Received date: 4 April 2015

Revised date: 29 August 2015

Accepted date: 2 November 2015

Please cite this article as: S.D. Costarelli, L. Garelli, M.A. Cruchaga, M.A. Storti, R. Ausensi, S.R. Idelsohn, An embedded strategy for the analysis of fluid structure interaction problems, *Comput. Methods Appl. Mech. Engrg.* (2015), <http://dx.doi.org/10.1016/j.cma.2015.11.001>

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 (for review)

- An original Immersed Boundary Method of second order of precision is presented.
- The proposed method is oriented and runs efficiently on GPGPU hardware.
- An experiment of fluid structure interaction (FSI) in order to assess the precision of the proposed numerical method (specially fluid forces: added mass and drag) has been carried out.

Download English Version:

<https://daneshyari.com/en/article/6916409>

Download Persian Version:

<https://daneshyari.com/article/6916409>

[Daneshyari.com](https://daneshyari.com)