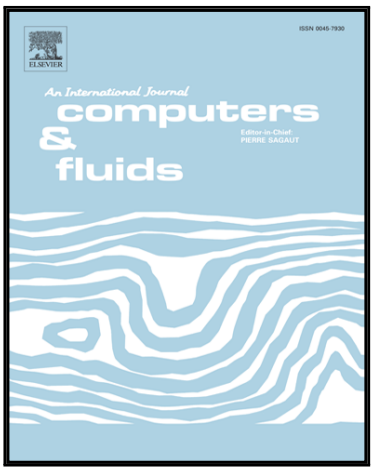
Accepted Manuscript



Towards a Generalised Dual-Mesh Hybrid LES/RANS Framework with Improved Consistency

R. Tunstall, D. Laurence, R. Prosser, A. Skillen

PII: S0045-7930(17)30285-2
DOI: 10.1016/j.compfluid.2017.08.002
Reference: CAF 3557

To appear in: *Computers and Fluids*

Received date: 5 September 2016
Revised date: 4 July 2017
Accepted date: 4 August 2017

Please cite this article as: R. Tunstall, D. Laurence, R. Prosser, A. Skillen, Towards a Generalised Dual-Mesh Hybrid LES/RANS Framework with Improved Consistency, *Computers and Fluids* (2017), doi: 10.1016/j.compfluid.2017.08.002

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.

ACCEPTED MANUSCRIPT

Highlights

- Dual-mesh hybrid LES/RANS framework solves LES and RANS equations on separate grids
- Coupling of grids is refined to improve consistency between RANS and LES solutions
- Automatic computation of RANS/LES interface location and relaxation timescales
- An elliptic blending eddy viscosity model is used to improve near-wall predictions
- Predictions for channel flows and periodic hills in good agreement with ref. data

ACCEPTED MANUSCRIPT

Download English Version:

https://daneshyari.com/en/article/5011682

Download Persian Version:

https://daneshyari.com/article/5011682

Daneshyari.com