IMMERSED BOUNDARY METHODS FOR FLUID-STRUCTURE INTERACTIONS AND THEIR APPLICATIONS

TRACK NUMBER (1500)

FANG-BAO TIAN*, LI WANG*, WEI-XI HUANG†

GANG CHEN‡, ANDRES GOZA¶

* University of New South Wales, Australia
Rm 127 Blg 17, SEIT, UNSW Canberra, Campbell, ACT 2610, Australia
f.tian@adfa.edu.au http://fsl-unsw.com

† Tsinghua University, China
hwx@tsinghua.edu.cn

‡ Xi’an Jiaotong University, China
gchen@mail.xjtu.edu.cn

¶ University of Illinois at Urbana-Champaign, USA
agoza@illinois.edu https://publish.illinois.edu/agoza

Key words: Immersed Boundary Method, Fluid-Structure-Acoustics Interaction, Moving Boundaries.

ABSTRACT

The immersed boundary method (IBM) is a methodology for dealing with boundary conditions at fluid–fluid and fluid–solid interfaces. It has been attracting growing attention in the recent years due to its simplicity associated with mesh processing. Great effort has been made to develop its new features and promote its applications in new areas [1].

The aim of this Minisymposium is to highlight the latest progresses in the IBM. We encourage submissions on the strategies to address the challenges in the IBM such as high Reynolds number flows, fluid-structure-acoustics interaction and fluid-structure interaction involving multi-phase flows. The applications of the IBM in fundamentals and engineering sciences are also welcome.

For any further request, please contact the Minisymposium organizer:
f.tian@adfa.edu.au

REFERENCES