Experimental Techniques (2023) 47:5–6
https://doi.org/10.1007/s40799-022-00623-z

EDITORIAL

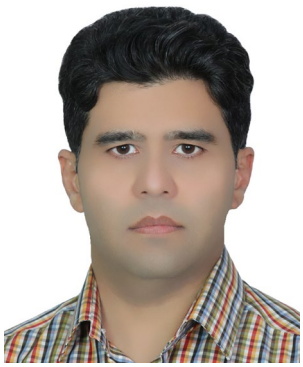
Experimental Techniques

F. Selimefendigil[1,2] · M. Khoshvaght-Aliabadi[3,4]

Published online: 20 January 2023

Computations & Experiments on Dynamics of Complex Fluid & Structure

Guest Editors



Fatih Selimefendigil, PhD, Professor
Department of Mechanical Engineering, Celal Bayar University, Manisa, Turkey

Morteza Khoshvaght-Aliabadi, PhD, Professor
Department of Chemical Engineering, Shahrood Branch, Islamic Azad University, Shahrood, Iran.

This compilation is based on the peer-reviewed and selected manuscript on ‘‘Computations & Experiments on Dynamics of Complex Fluid & Structure’’

✉ F. Selimefendigil
fatih.selimefendigil@cbu.edu.tr

M. Khoshvaght-Aliabadi
mkhaliabadi@gmail.com; mkhaliabadi@korea.ac.kr

[1] Department of Mechanical Engineering, College of Engineering, King Faisal University, P.O. Box 380, Al Ahsa 31982, Saudi Arabia

[2] Department of Mechanical Engineering, Celal Bayar University, 45140 Manisa, Turkey

[3] Department of Chemical Engineering, Shahrood Branch, Islamic Azad University, Shahrood, Iran

[4] The School of Mechanical Engineering, Korea University, 145 Anam-Ro, Seongbuk-Gu, Seoul 02841, Republic of Korea

Preface

The problems of Complex Fluids and Structures are encountered in many scientific problems and engineering processes, such as physical, medical, biological, optical, mechanical, chemical, aeroespacial, petrochemical, etc. Such problems can appear at the microscopic, intermediate, and macroscopic scales. Analytical methods to solve Complex Fluids and Structures are very scarce due to the complicated behavior of fluid flows and possible phenomena. Therefore, computational and experimental techniques have been developed to address these issues. Due to the importance of these techniques, a special issue on the applications of different computational and experimental techniques for Complex Fluids and

Structures problems has been introduced as "Computations & Experiments on Dynamics of Complex Fluid & Structure". The editors believe that it has provided great opportunities for researchers, scientists, and designers to present their latest findings in this important field in the journal of Experimental Techniques.

After the call for submission, we received many papers for this special issue. All manuscripts were reviewed by at let two peer reviewers while 23 papers were accepted to be published in this special issue. The topics of the accepted papers cover the:

- Fluid–structure interaction (FSI) applications in thermo-fluid science
- Nanofluid applications in thermal science
- Complex fluids in turbomachinery
- Entropy generation in convection with FSI
- Dynamical analysis of flow physics with complex fluid
- Two-phase flow modeling and applications
- Flexible objects in convection control
- Sensitivity and optimization with complex fluid in thermo-fluid science
- Phase change and mixing processes in thermal science

In conclusion, the editors hope that the special issue of *Computations & Experiments on Dynamics of Complex Fluid & Structure* will result in a wider usage of computational and experimental techniques for Complex Fluids and Structures in academic applications and industrial problems.

Acknowledgements We are very grateful to all the scientists for their critical and valuable reviews which have significantly contributed to the quality of the papers in this Special Issue.