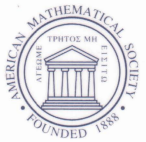
CONTEMPORARY MATHEMATICS

466

Moving Interface Problems and Applications in Fluid Dynamics

Program on Moving Interface Problems
and Applications in Fluid Dynamics
January 8–March 31, 2007
Institute for Mathematical Sciences
National University of Singapore

Boo Cheong Khoo
Zhilin Li
Ping Lin
Editors



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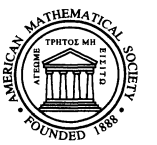

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Preface

The program on Moving Interface Problems and Applications in Fluid Dynamics was held between January 8 and March 31, 2007 at the Institute for Mathematical Sciences (IMS) of the National University of Singapore. The program topics included modeling and simulations of biological flow coupled to deformable tissue/elastic structure, shock wave and bubble dynamics and various applications like biological treatments with experimental verification, multi-medium flow or multiphase flow and various applications including cavitation/supercavitation, detonation problems, Newtonian and non-Newtonian fluid, and many other areas. The speakers and participants included academicians, laboratories, and industries from a number of countries and many leading scientists in different areas. The program also provided an opportunity for young and junior researchers and other scientists to present their research results. More information of the conference can be found on the conference website:

http://www.ims.nus.edu.sg/Programs/fluiddynamic/index.htm.

This special issue collected some of the contributions from the speakers and participants of this program.

The program had four tutorials conducted by Robert Dillon (WSU), Zhilin Li (NCSU), John Lowengrub (UCI), Frank Lu (UT-Arlington), and Gretar Tryggvason (WPI). The lectures given at these tutorials will be published by World Scientific as a volume of the IMS Lecture Notes Series. A short course designed specifically for graduate students from the Association of Southeast Asian Nations (ASEAN) was also taught by Zhilin Li.

The program was sponsored and supported fully by IMS. Without the support of IMS, it would not have been possible to have such a high level event. For this, we would like to express our thanks to the director and staff of IMS and also to other local organizers. We would also like to thank the Proceedings of Contemporary Mathematics, US-AMS for making this special issue possible.

Boo Cheong Khoo, National University of Singapore

Zhilin Li, North Carolina State University, USA

Ping Lin, University of Dundee, UK

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