

PREFACE

The present issue is the 9th volume of The Josai Mathematical Monographs (JMM). JMM is founded by the Graduate School of Science of Josai University (GSSJU), and appears yearly. JMM aims at formal as well as informal information on developments in mathematical research by the mathematical faculty of GSSJU and others.

This issue consists of eleven refereed academic papers addressing topics on modeling and simulation in applied mathematics, in particular, computational fluid dynamics, mathematical modeling of infectious disease and computational mathematics. Every representative author gave a talk about their paper at Annual Workshop on Modeling and Simulation in Applied Mathematics which was held at the Tokyo Kioi-cho Campus of Josai University (JU) on December 20 in 2015. The editors sincerely thank the authors for submitting excellent papers and giving interesting talks at the workshop and hope that this issue will provide the reader with a good view of the present status of fusion between mathematics and computer science.

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The editors wish that the publication of The Josai Mathematical Monographs will be more fruitful in the future. The papers in some previous volumes of JMM are available at the website of Mizuta memorial library: http://libir.josai.ac.jp/il/meta_pub/G0000284repository.

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Hidenori Yasuda (Editor in Chief)