

Preface

In daily life, we have many opportunities to see scenes created by computer graphics (CG), sometimes without even being aware of that fact. “Computer graphics” is a common term even for nonspecialists, including children. It has become one of the fundamental technologies for communications, entertainment, art, science, technology, merchandising, education, and many other areas, and it is undeniably a part of the infrastructure of modern society.

The symposium MEIS, i.e., the international symposium “Mathematical Progress in Expressive Image Synthesis”, provides a unique venue where mathematicians, CG researchers, and those who work in industry gather to share and discuss their contemporary issues and future collaborative projects. Following the great success of the first MEIS (MEIS2013), MEIS2014 was held in Fukuoka, Japan, November 12–14, 2014. At that time more industrial topics and deeper mathematics were presented, and several renowned researchers were invited. Furthermore, to provoke more lively discussions than the previous year, we called for papers and posters, which were peer reviewed by international committees and external reviewers.

This volume presents papers selected from the MEIS2014 proceedings, which was originally issued as MI Lecture Notes, Vol. 58, Kyushu University, 2014. The industrial topics include fabrication, image editing, medical imaging, character animation, and fluids. These are discussed through mathematical approaches such as continuous and discrete differential geometry, Lie theory, computational fluid dynamics, function interpolation, and learning theory. We hope readers will find themselves deeply inspired by the harmony of mathematics and graphics research and by the industrial work displayed in this volume.

Fukuoka
March 2015

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Mathematical Progress in Expressive Image Synthesis II
Extended and Selected Results from the Symposium
MEIS2014

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2015, XII, 164 p. 93 illus., 73 illus. in color., Hardcover

ISBN: 978-4-431-55482-0