## MI Lecture Note Series

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## Preface

Welcome to MEIS2014, the international symposium "Mathematical Progress in Expressive Image Synthesis", held in Fukuoka, Japan, November 12-14, 2014. The symposium MEIS gives 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), this year in MEIS2014 we have more industrial topics and deeper mathematics, while inviting several renowned researchers. From the graphics community we have three outstanding invited speakers: Bernd Bickel (Disney Research), Eitan Grinspun (Columbia University), and Sunil Hadap (Adobe Research). Furthermore, to provoke more lively discussions than last year, we called for papers/posters, which were peer-reviewed by international committees and external reviewers.

The present volume is the proceedings of MEIS2014. 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 are very much grateful to the Institute of Mathematics for Industry (IMI), Kyushu University for sponsoring this symposium. We would like to thank the Japan Science and Technology Agency (JST), Mathematics Program: Alliance for Breakthrough between Mathematics and Sciences (ABMS) on our five-year project "Mathematics for Computer Graphics" for continuous support. We would like to thank The Institute of Statistical Mathematics (ISM), The Cooperation with Mathematics Program for their financial resources. We also extend our thanks to Ayumi Kimura for her hard work on the conference arrangement and the production of the proceedings. Last but not least, we appreciate the hard work of the international program committee and the external reviewers in the tight schedule. Finally we wish to thank all contributing authors and attendees for their involvement. We hope all the participants enjoy this exciting event in Fukuoka.

Program Co-Chairs: Ken Anjyo Hiroyuki Ochiai

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