PREFACE

The present issue is the 10 th 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 faculty of mathematics in GSSJU and others.

This issue consists of eleven refereed academic papers addressing topics on representation theory and differential equations, in particular, several aspects of these topics from analytic, geometric and algebraic points of view, and their applications to number theory and mathematical physics and so on. Every representative author gave a talk related to their paper at JMM Workshop on Representation Theory and Differential Equations which was held at the Tokyo Kioi-cho Campus of Josai University (JU) on November 26 – 27 in 2016. 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 interaction between representation theory and differential equations.

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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Kazuki Hiroe (Editor in Chief)