短 期 共 同 研 究

微分方程式と力学系における数論的現象の研究

京 都 大 学 数 理 解 析 研 究 所

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Preface

This issue is the report of the workshop

Diophantine phenomena in differential equations and dynamical systems

held at RIMS (Research Institute for Mathematical Sciences) of Kyoto University from September 10, 2003 to September 12, 2003 (3 days) as one of the research projects of RIMS. The main object of this workshop was to discuss the current problems in Diphantine phenomena of differential equations and dynamical systems. We hoped that this workshop would give a chance of a collaboration among those researchers studying Diophantine phenomena in different areas of mathematics.

There were seven 90 minutes lectures, all of which were followed by a sufficiently long discussion time so that every audience could make free discussion with a lecturer as soon as every talk finished. I am very glad and grateful to all lecturers for having given well- prepared talks. Hence the problems in every subject were clear not only to specialists but also to those without special knowledge of every subject. I also would like to appreciate all lecturers for having prepared a nice report of the talk. I hope that the reports in this book will be a good introduction and an explanation of every subject which is not easy to understand for beginners.

Finally, I would like to express my sincere thanks to all who supported this workshop, especially to Research Institute for Mathematical Sciences and its staffs, Prof. T. Kawai (RIMS, Kyoto University), Prof. M. Matsumoto (Hiroshima Univeristy) and Prof. M. Yamaguchi (Tokai University).

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