

数理解析研究所講究録 968

短期共同研究

特異摂動の代数解析学

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Algebraic Analysis of Singular Perturbations

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Preface

Analysis of singular perturbations is one of the most exciting and challenging subjects in mathematics of our days, particularly now that microlocal analysis has been firmly established. To accelerate the study of this newly developing, though old, subject, RIMS has invited Dr. W. Boyd and Dr. C. Howls under the joint program of Isaac Newton Institute for Mathematical Sciences (Cambridge, U.K.) and Research Institute for Mathematical Sciences (Kyoto, Japan), which is supported by the Royal Society and Japan Society for the Promotion of Science. To make full use of their visit, I organized a small workshop titled "Algebraic Analysis of Singular Perturbations" under RIMS program, and this is its proceedings. I designed this workshop as a "resurgence" of the March workshop in the 1995 Newton Institute program "Exponential Asymptotics" held in Cambridge, and I believe the reports and the discussions at this workshop richly deserve the word "resurgence", or probably even more; several talks strongly indicated further resurgences should occur.

I, together with all the participants in the workshop, sincerely thank all the institutions that helped us to have this chance of interesting and exciting discussions.

Kyoto in September, 1996

Takahiro KAWAI

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