

数理解析研究所講究録 1001

短期共同研究

完全WKB解析と複素フーリエ解析

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Exact WKB Analysis

and

Fourier Analysis in the Complex Domain

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Preface

Asymptotic analysis, in my way of thinking, is a way to introduce a suitable filtration upon the objects in question. Asymptotic analysis is thus a central theme of algebraic analysis. To put it on the solid basis we relate it to the analysis in the complex domain via the Borel transformation, following Voros, Silverstone and Ecalle. Thus the title of this workshop comes. I believe that the combination of singular perturbations (such as WKB analysis) and Fourier analysis in the complex domain should continue to be useful in studying the structure of differential equations as it has already proven to be so. I wish this proceedings provide us with some ideas in such analysis.

Kyoto in April, 1997

Takahiro KAWAI

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Exact WKB Analysis and Fourier Analysis in the Complex Domain
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