

Contents

Contents of Volume II	xi
Contributors	xv
Introduction	1
<i>Masaki Kashiwara and Takahiro Kawai</i>	
Three Personal Reminiscences	9
<i>S. Iyanaga</i>	
Mikio Sato: Impressions	13
<i>Gian-Carlo Rota</i>	
Sato, a Perfectionist	17
<i>Kôsaku Yosida</i>	
Existence of Local Holomorphic Solutions of Differential Equations of Infinite Order	19
<i>Takashi Aoki</i>	
A Note on Holonomic q -Difference Systems	25
<i>K. Aomoto</i>	

Solvable Models in Statistical Mechanics and Riemann Surfaces of Genus Greater than One	29
<i>Helen Au-Yang, Barry M. McCoy, Jacques H. H. Perk, and Shuang Tang</i>	
Linearization and Singular Partial Differential Equations	41
<i>Gunter Bengel</i>	
On the Notions of Scattering State, Potential, and Wave-Function in Quantum Field Theory: An Analytic-Functional Viewpoint	49
<i>J. Bros</i>	
Two Remarks on Recent Developments in Solvable Models	75
<i>Etsuro Date, Michio Jimbo, Tetsuji Miwa, and Masato Okado</i>	
Hypergeometric Functions	85
<i>Leon Ehrenpreis</i>	
Quantization of Lie Groups and Lie Algebras	129
<i>L. D. Faddeev, N. Yu. Reshetikhin, and L. A. Takhtajan</i>	
The Toda Lattice in the Complex Domain	141
<i>H. Flaschka</i>	
Zoll Phenomena in $(2 + 1)$ Dimensions	155
<i>Victor Guillemin</i>	
A Proof of the Bott Inequalities	171
<i>B. Helffer and J. Sjöstrand</i>	
What Is the Notion of a Complex Manifold with a Smooth Boundary?	185
<i>C. Denson Hill</i>	
Toda Molecule Equations	203
<i>Ryogo Hirota</i>	

Microlocal Analysis and Scattering in Quantum Field Theories <i>D. Iagolnitzer</i>	217
b -Functions and p -adic Integrals <i>Jun-ichi Igusa</i>	231
On the Poles of the Scattering Matrix for Several Convex Bodies <i>Mitsuru Ikawa</i>	243
Symmetric Tensors of the $A_{n-1}^{(1)}$ Family <i>Michio Jimbo, Tetsuji Miwa, and Masato Okado</i>	253
On Hyperfunctions with Analytic Parameters <i>Akira Kaneko</i>	267
The Invariant Holonomic System on a Semisimple Lie Group <i>Masaki Kashiwara</i>	277
Some Applications of Microlocal Energy Methods to Analytic Hypoellipticity <i>Kiyômi Kataoka</i>	287
A Proof of the Transformation Formula of the Theta-Functions <i>Yukiyosi Kawada</i>	305
Microlocal Analysis of Infrared Singularities <i>Takahiro Kawai and Henry P. Stapp</i>	309
On the Global Existence of Real Analytic Solutions of Systems of Linear Differential Equations <i>Takahiro Kawai and Yoshitsugu Takei</i>	331
Complex Powers on p -adic Fields and a Resolution of Singularities <i>Tatsuo Kimura</i>	345

Operational Calculus, Hyperfunctions, and Ultradistributions <i>Hikosaburo Komatsu</i>	357
On a Conjectural Equation of Certain Kinds of Surfaces <i>Michio Kuga</i>	373
Vanishing Cycles and Second Microlocalization <i>Yves Laurent</i>	381
Extensions of Microfunction Sheaves up to the Boundary <i>J.-L. Lieutenant</i>	393
Extension of Holonomic \mathcal{D} -Modules <i>B. Malgrange</i>	403
On the Irregularity of the \mathcal{D}_X Holonomic Modules <i>Z. Mebkhout</i>	413
An Error Analysis of Quadrature Formulas Obtained by Variable Transformation <i>Masatake Mori</i>	423
Analytic Functionals on the Complex Light Cone and Their Fourier–Borel Transformations <i>Mitsuo Morimoto and Ryoko Wada</i>	439
A p -adic Theory of Hyperfunctions, II <i>Yasuo Morita</i>	457