

JOURNAL OF SCIENCE  
OF THE  
HIROSHIMA UNIVERSITY

SERIES A-I  
(*MATHEMATICS*)

VOLUME 32  
1968

PUBLISHED BY THE  
HIROSHIMA UNIVERSITY  
HIROSHIMA, JAPAN



# TABLE OF CONTENTS

VOLUME 32, 1968

	PAGE
APOSTOL, C.: Roots of Scalar Operator-valued Analytic Functions and their Functional Calculus .....	173
APOSTOL, C.: Corrections to the paper "Roots of Scalar Operator-valued Analytic Functions and their Functional Calculus" .....	449
BUTTS, H. S. and J. R. GILBERT, Jr.: Rings Satisfying the Three Noether Axioms .....	211
FUJIKOSHI, Y.: Asymptotic Expansion of the Distribution of the Generalized Variance in the Non-central Case .....	293
FUJIKOSHI, Y. and S. YAMAMOTO: Two-way Classification Designs with Unequal Cell Frequencies .....	357
GILBERT, J. R., Jr. and H. S. BUTTS: Rings Satisfying the Three Noether Axioms .....	211
HAMADA, N.: The Rank of the Incidence Matrix of Points and $d$ -Flats in Finite Geometries .....	381
HARUI, H.: Modules over $(qa)$ -Rings .....	247
HARUI, H.: Notes on Quasi-Valuation Rings .....	237
HATANO, K.: Evaluation of Hausdorff Measures of Generalized Cantor Sets .....	371
ITANO, M.: On the Distributional Boundary Values of Vector-Valued Holomorphic Functions .....	397
JANOWITZ, M. F.: On Conditionally Upper Continuous Lattices .....	1
KOBAYASHI, T.: Non-Immersion Theorems for Lens Spaces .....	285
LARSEN, M. D.: Containment Relations between Classes of Regular Ideals in a Ring with Few Zero Divisors .....	241
MAEDA, F-Y.: Boundary Value Problems for the Equation $\Delta u - qu = 0$ with respect to an Ideal Boundary .....	85
OHTSUKA, M.: Schwarz Reflexion Principle in 3-Space .....	301
PIRTLE, E. M., Jr.: Integral Domains which are Almost Krull .....	441
RAVISANKAR, T. S.: On Certain Classes of Algebras .....	225
RAVISANKAR, T. S.: On Certain Classes of Malcev Algebras .....	233
SHINTANI, H.: Direct Solution of Partial Difference Equations for a Rectangle .....	17

<b>SHIRAISHI, R.:</b> On the Convolutions of Currents in $R^n$ .....	147
<b>TANAKA, H.:</b> On Kuramochi's Function-Theoretic Separative Metrics on Riemann Surfaces .....	309
<b>TÔGÔ, S.:</b> On a Class of Lie Algebras .....	55
<b>YAMAMOTO, S. and Y. FUJIKOSHI:</b> Two-way Classification Designs with Unequal Cell Frequencies .....	357
<b>YAMAMOTO, T.:</b> On Lanczos' Algorithm for Tri-Diagonalization .....	259
<b>YAMASAKI, M.:</b> Duality Theorems in Mathematical Programmings and Their Applications .....	331
<b>YANAGIHARA, H.:</b> Some Remarks on Higher Derivations of Finite Rank in a Field of a Positive Characteristic .....	167
<b>YOSHIDA, M.:</b> The Method of Orthogonal Decomposition for Differen- tials on Open Riemann Surfaces .....	181
<b>YOSHIDA, T.:</b> On the Vector Bundles $m\xi_n$ over Real Projective Spaces ...	5

昭和四十三年十二月二十日 印刷

昭和四十三年十二月二十五日 発行

編 集 者 廣 島 大 学 理 学 部  
発 行 者

印 刷 者 増 田 訓 清  
広島市十日市町2丁目3番23号

印 刷 所 大 学 印 刷 株 式 会 社  
広島市十日市町2丁目3番23号

PRINTED BY  
DAIGAKU INSATSU CO., LTD  
HIROSHIMA, JAPAN

## CONTENTS

	PAGE
<b>J. R. GILBERT, Jr. and H. S. BUTTS:</b> Rings Satisfying the Three Noether Axioms .....	211
<b>T. S. RAVISANKAR:</b> On Certain Classes of Algebras .....	225
<b>T. S. RAVISANKAR:</b> On Certain Classes of Malcev Algebras .....	233
<b>H. HARUI:</b> Notes on Quasi-Valuation Rings .....	237
<b>M. D. LARSEN:</b> Containment Relations Between Classes of Regular Ideals in a Ring with Few Zero Divisors .....	241
<b>H. HARUI:</b> Modules over $(qa)$ -Rings .....	247
<b>T. YAMAMOTO:</b> On Lanczos' Algorithm for Tri-Diagonalization.....	259
<b>T. KOBAYASHI:</b> Non-Immersion Theorems for Lens Spaces .....	285
<b>Y. FUJIKOSHI:</b> Asymptotic Expansion of the Distribution of the Generalized Variance in the Non-central Case .....	293
<b>M. OHTSUKA:</b> Schwarz Reflexion Principle in 3-Space.....	301
<b>H. TANAKA:</b> On Kuramochi's Function-Theoretic Separative Metrics on Riemann Surfaces .....	309
<b>M. YAMASAKI:</b> Duality Theorems in Mathematical Programmings and Their Applications .....	331
<b>S. YAMAMOTO and Y. FUJIKOSHI:</b> Two-way Classification Designs with Unequal Cell Frequencies .....	357
<b>K. HATANO:</b> Evaluation of Hausdorff Measures of Generalized Cantor Sets .....	371
<b>N. HAMADA:</b> The Rank of the Incidence Matrix of Points and $d$ -Flats in Finite Geometries .....	381
<b>M. ITANO:</b> On the Distributional Boundary Values of Vector-Valued Holomorphic Functions .....	397
<b>E. M. PIRTLE, Jr:</b> Integral Domains which are Almost Krull.....	441
<b>C. APOSTOL:</b> Corrections to the paper "Roots of Scalar Operator- valued Analytic Functions and their Functional Calculus" .....	449