

# TÔHOKU MATHEMATICAL JOURNAL

## 東北數學雜誌

(FOUNDED BY T. HAYASHI)

---

EDITED BY

RYOSHI HOTTA  
JUNJI KATO  
TADASHI KURODA  
TADAo ODA

SATORU IGARI  
TAKESHI KOTAKE  
YASUO MORITA  
ICHIRO SATAKE

NORIO SHIMAKURA

WITH THE CO-OPERATION OF THE  
MATHEMATICAL INSTITUTE OF TÔHOKU UNIVERSITY

SECOND SERIES VOL. 40

1988

---

THE TÔHOKU UNIVERSITY  
SENDAI, 980 JAPAN



## CONTENTS

Vol. 40, 1988

- ANDERSON, G. D. AND VAMANAMURTHY, M. K., The transfinite moduli of condensers in space..... 1- 25  
BAI, Y.-H., WANG, J.-P. AND WEN, K.-X., Translation and cancellation of socle series patterns..... 633-643  
BLUMENTHAL, R. A. AND HEBDA, J. J., An analogue of the holonomy bundle for a foliated manifold ..... 189-197  
CANTWELL, J. AND CONLON, L., Foliations and subshifts..... 165-187  
CHRISTIAN, U., Über die analytische Fortsetzung gewisser Poincaré'scher Reihen zu elliptischen Modulgruppen..... 549-590  
COIFMAN, R. R. AND MURAI, T., Commutators on the potential-theoretic energy spaces..... 397-407  
CURRÁS-BOSCH, C., The geometry of totally geodesic foliations admitting Killing field..... 535-548  
HARAUXT, A. AND YOUNKANA, A., On a result of K. Masuda concerning reaction-diffusion equations ..... 159-163  
HAZAMA, F., Geometric analogue of the Mumford-Tate Conjecture for stably non-degenerate abelian varieties (A note on Mustafin's paper) ..... 87- 94  
HEYWOOD, J. G., Epochs of regularity for weak solutions of the Navier-Stokes equations in unbounded domains ..... 293-313  
HIRONAKA, Y., Spherical functions of hermitian and symmetric forms III..... 651-671  
ISHIDA, M.-N., An elliptic surface covered by Mumford's fake projective plane..... 367-396  
KAWASHIMA, S. AND SHIZUTA, Y., On the normal form of the symmetric hyperbolic-parabolic systems associated with the conservation laws..... 449-464  
KODAMA, A., Characterizations of certain weakly pseudoconvex domains  $E(k, \alpha)$  in  $C^n$ ..... 343-365  
KUWABARA, R., Spectrum of the Schrödinger operator on a line bundle over complex projective spaces ..... 199-211  
LU, S., An application of pseudo-inverses—the analytic characteristic of  $T$ -regular points for closed operators ..... 331-341  
MASHIMO, K., Eigenmaps and minimal immersions of projective spaces into spheres..... 245-267  
MATSUBA, A., Intersection formula for Stiefel-Whitney homology

classes.....	315-322
MATSUMOTO, K., On the generalization of Frostman's theorem due to S. Kobayashi.....	409-412
MOCHIZUKI, N., Inequalities of Fejér-Riesz and Hardy- Littlewood.....	77- 86
MOCHIZUKI, N., Positive kernel functions and Bergman spaces.....	473-483
MORITA, J., Root strings with three or four real roots in Kac-Moody root systems.....	645-650
MOROSAWA, S., A property of transitive points under Fuchsian groups.....	153-158
NAKADA, M., The exponent of convergence of Poiocaré series associated with some discontinuous groups .....	413-423
NAKAGAWA, H. AND TAKAGI, R., Harmonic foliations on a compact Riemannian manifold of non-negative con- stant curvature.....	465-471
NISHIKAWA, S. AND TONDEUR, P., Transversal infinitesimal automorphisms for harmonic Kähler foliations.....	599-611
NISHISHIRAH, T., The order of approximation by positive linear operators.....	617-632
NITTA, T., Vector bundles over quaternionic Kähler manifolds....	425-440
OKAYASU, T., Pinching and nonexistence of stable harmonic maps .....	213-220
ROUSSOS, I. M., The helicoidal surfaces as Bonnet surfaces.....	485-490
SATO, H., Classical Schottky groups of real type of genus two, I.....	51- 75
SHASTRI, A. R., Compact structures on $C^* \times C^*$ .....	35- 49
SHIMIZU, S., Automorphisms and equivalence of bounded Reinhardt domains not containing the origin .....	119-152
TANNO, S., Ricci curvatures of contact Riemannian manifolds....	441-448
TOP, J., A remark on the rank of jacobians of hyperelliptic curves over $Q$ over certain elementary abelian 2- extensions .....	613-616
TSUBOI, S. AND OKAWA, M., Some results on the local moduli of non-singular normalizations of surfaces with ordinary singularities.....	269-291
TSUJI, H., Complete negatively pinched Kähler surfaces of finite volume.....	591-597
TSUKADA, K., Curvature homogeneous hypersurfaces immersed in a real space form .....	221-244

III

- UESU, K., Hadamard manifolds and the visibility axiom ..... 27- 34  
VÄISÄLÄ, J., Uniform domains.....101-118  
WATANABE, T., Euler factors attached to unramified principal  
series representations .....491-534  
YANO, K.,  $C^1$  foliations which cannot be approximated by  $C^2$   
foliations ..... 95- 99  
ZHENG, J.-H. AND ZHOU, Z.-Z., Permutability of entire  
functions satisfying certain differential equations.....323-330





## CONTENTS

---

	Page
T. WATANABE, Euler factors attached to unramified principal series representations .....	491
C. CARRAS-BOSCH, The geometry of totally geodesic foliations admitting Killing field.....	535
U. CHRISTIAN, Über die analytische Fortsetzung gewisser Poincaré'scher Reihen zu elliptischen Modulgruppen.....	549
H. TSUJI, Complete negatively pinched Kähler surfaces of finite volume.....	591
S. NISHIKAWA AND P. TONDEUR, Transversal infinitesimal automorphisms for harmonic Kähler foliations .....	599
J. TOP, A remark on the rank of jacobians of hyperelliptic curves over $\mathbb{Q}$ over certain elementary abelian 2-extensions .....	613
T. NISHISHIRaho, The order of approximation by positive linear operators.....	617
Y. H. BAI, J.-P. WANG AND K.-X. WEN, Translation and cancellation of socle series patterns.....	633
J. MORITA Root strings with three or four real roots in Kac-Moody root systems. ....	645
Y. HIRONAKA Spherical functions of hermitian and symmetric forms III.....	651