ISSN 0027-7630

NAGOYA MATHEMATICAL JOURNAL

Volume 258

June 2025

Published by
Cambridge University Press on behalf of
Foundation Nagoya Mathematical Journal



https://doi.org/10.1017/nmj.2025.10074 Published online by Cambridge University Press

NAGOYA MATHEMATICAL JOURNAL

Editors

Banica, Valeria
Sorbonne Université

Hesselholt, Lars (*Managing Editor*)
Nagoya University and
University of Copenhagen

Hirachi, Kengo
University of Tokyo

Honda, Ko
University of California, Los Angeles

Iyama, Osamu
Nagoya University

Kedlaya, Kiran
University of California, San Diego

Mathew, Akhil
University of Chicago

Russ, Emmanuel
Aix-Marseille Université

Tanimoto, Sho
Nagoya University

Associate Editors

Bona, Jerry L.
University of Illinois at Chicago

Fukaya, Kenji
Simons Center for Geometry and Physics, Stony Brook

Kondo, Shigeyuki
Nagoya University

Liu, Ruochuan
Peking University

Ma, Linquan
Purdue University

Mori, Shigefumi
RIMS, Kyoto University

Mukai, Shigeru
Chinese Academy of Sciences

Noguchi, Junjiro
University of Tokyo

Shoji, Toshiaki
Tongji University, Shanghai

Tamagawa, Akio
RIMS, Kyoto University

Toda, Yukinobu
IPMU, University of Tokyo

https://doi.org/10.1017/nmj.2025.10074 Published online by Cambridge University Press

NAGOYA MATHEMATICAL JOURNAL

Volume 258

June 2025

CONTENTS

Duarte, L. Local cohomology under small perturbations 183

Müller, N. Two non-vanishing results concerning the anti-canonical bundle 201

Lyu, S. Formal lifting of dualizing complexes and consequences 219

Heuberger, L. $\mathbb{Q}$-Fano threefolds and Laurent inversion 237

Amdeberhan, T., Ono, K. & Singh, A. Derivatives of theta functions as traces of partition Eisenstein series 284

Fiorindo, L. & Ghosh, D. On the asymptotic behavior of the Vasconcelos invariant for graded modules 296

Finis, T. & Lapid, E. On the convergence of zeta functions of prehomogeneous vector spaces 311

Kühne, L. & Roulleau, X. Dynamical systems on some elliptic modular surfaces via operators on line arrangements 357

Gurjar, R. V., Gurjar, S. R. & Thandar, S. Some results on the topology of algebraic surfaces 376

https://doi.org/10.1017/nmj.2025.10074 Published online by Cambridge University Press