

*Nagoya Mathematical Journal* is included in the Cambridge Journals Online service which can be found at <http://journals.cambridge.org/>. For further information on other Press titles access [cambridge.org/](http://cambridge.org/).

**Subscriptions:** *Nagoya Mathematical Journal* (ISSN 0027-7630) is published in four parts or volumes in 2022, in March, June, September and December. The Journal is published by Cambridge University Press, Journals Fulfillment Department, UPH, Shaftesbury Road, Cambridge CB2 8BS, UK. /Cambridge University Press, 1 Liberty Plaza, Floor 20, New York, NY 10006, USA on behalf of the Editorial Board of the *Nagoya Mathematical Journal*. Subscriptions include four volumes; all subscriptions are on a calendar-year basis. Annual subscription rates (excluding VAT) in 2022 are: print and electronic, \$550; print-only, \$524; electronic-only, \$435.

Orders, which must be accompanied by payment, should be sent to any bookseller or subscription agent, or direct to the publisher: Cambridge University Press, Shaftesbury Road, Cambridge CB2 8RU. Subscriptions in the USA, Canada and Mexico should be sent to Cambridge University Press, Journals Fulfillment Department, 1 Liberty Plaza, Floor 20, New York, NY 10006, USA. EU subscribers (outside the UK) who are not registered for VAT should add VAT at their country's rate. VAT registered subscribers should provide their VAT registration number. Japanese prices for institutions are available from Kinokuniya Company Ltd, P.O. Box 55, Chitose, Tokyo 156, Japan. Prices include delivery by air.

**Copying:** This journal is registered with the Copyright Clearance Center, 222 Rosewood Drive, Danvers, Mass. 01923, USA. Organizations in the USA who are also registered with C.C.C. may therefore copy material (beyond the limits permitted by sections 107 and 108 of US copyright law) subject to payment to C.C.C. of the per-copy fee of \$45.00. This consent does not extend to multiple copying for promotional or commercial purposes.

Organizations authorized by the Copyright Licensing Agency may also copy material subject to the usual conditions.

For all other use, permission should be sought from Cambridge or the American Branch of Cambridge University Press.

**Advertising:** Details on advertising in *Nagoya Mathematical Journal* may be obtained directly from the Publisher.

**Indexing/Abstracting:** *Nagoya Mathematica Journal* is indexed and/or abstracted in *Current Contents. Physical, Chemical, and Earth Sciences*, *MathSciNet*, *Science Citation Index*, *Science Citation Index Expanded*, and *Zentralblatt MATH*.

© 2022 Foundation Nagoya Mathematical Journal

Printed in Great Britain by Bell & Bain Ltd, Glasgow.

This journal issue has been printed on FSC™-certified paper and cover board. FSC is an independent, non-governmental, not-for-profit organization established to promote the responsible management of the world's forests. Please see [www.fsc.org](http://www.fsc.org) for information.

## CONTENTS

---

<b>Li, Y. and Zhu, J.</b> Quasi-split symmetric pairs of $U(\mathfrak{gl}_N)$ and their Schur algebras.....	1
<b>Fakhari, S. A. S.</b> On the depth of symbolic powers of edge ideals of graphs .....	28
<b>Liu, Y. and Zhuang, Z.</b> On the sharpness of Tian's criterion for K-stability .....	41
<b>Guo, J.-W., Sheu, N.-H. and Yu, C.-F.</b> Class numbers of CM algebraic tori, CM abelian varieties and components of unitary shimura varieties .....	74
<b>Reyes, M. L. and Rogalski, D.</b> Graded twisted Calabi–Yau algebras are generalized Artin–Schelter regular.....	100
<b>Yao, S., Li, Z and Zhou, X.</b> On the optimal $L^2$ extension theorem and a question of Ohsawa.....	154
<b>Bivià-Ausina, C. and Montaña, J.</b> Analytic spread and integral closure of integrally decomposable modules.....	166
<b>Laface, R. and Tirabassi, S.</b> On ordinary enriques surfaces in positive characteristic.....	192
<b>Bolognesi, M. and Vargas, N. F.</b> The hyperelliptic theta map and osculating projections.....	206
<b>Polstra, T. and Smirnov, I.</b> Erratum: continuity of Hilbert–Kunz multiplicity and F-signature.....	229