



# COMPOSITIO MATHEMATICA

**Ownership and Publication of *Compositio Mathematica*.** The journal was founded in 1934 and has been owned since 1950 by the Foundation Compositio Mathematica. The Board members of this Dutch foundation are all mathematicians; its President is Prof. G. B. M. van der Geer of the University of Amsterdam. Papers are submitted to the journal's Dutch editorial office, currently based in the Korteweg–de Vries Institute at the University of Amsterdam. Since January 2004, the journal has been published on behalf of the Foundation by the London Mathematical Society (LMS). The LMS celebrated its 150th anniversary in 2015; it is the major British learned Society for mathematics and publishes eleven other journals, five of which are in collaboration with other learned societies, and two book series. Cambridge University Press prints and distributes *Compositio Mathematica* under agreement with the London Mathematical Society.

For further information concerning the journal's ownership, management and pricing policy, please contact Publications at the London Mathematical Society ([compmath@lms.ac.uk](mailto:compmath@lms.ac.uk)).

**Submission of Manuscripts.** *Compositio Mathematica* prefers the submission of papers in LaTeX; however, papers submitted in TeX, AMSTeX, LAMSTeX and for conventional typesetting can also be accepted.

Guidelines for electronic submission are available from the Compositio Mathematica website at [www.compositio.nl/compositio.html](http://www.compositio.nl/compositio.html).

Upon acceptance, the supply of the final version of the paper as a LaTeX file will ensure more rapid publication.

**Instructions for the Preparation of Manuscripts** can be found on the Compositio Mathematica website at [www.compositio.nl/compositio.html](http://www.compositio.nl/compositio.html).

**Rights and Permissions.** Authors are asked to assign an exclusive licence to the Foundation Compositio Mathematica for the publication of their work. Enquiries regarding rights and permission to reproduce works should be addressed to Publications, London Mathematical Society, De Morgan House, 57–58 Russell Square, London WC1B 4HS, UK.

**Offprints.** A URL giving free access to the final published article will be provided free of charge. Offprints can be ordered on the form made available with the page proofs.

**Back numbers.** Orders for Volume 144 onwards should be sent to Cambridge University Press. Enquiries about previous volumes should be directed to Publications, London Mathematical Society.

This journal has been printed on FSC-certified paper and cover board. See [www.fsc.org](http://www.fsc.org) for information.

Typeset by Sunrise Setting Ltd, Brixham, UK.

Printed in the UK by Bell and Bain Ltd.



# COMPOSITIO MATHEMATICA

VOLUME 155 NUMBER 1 JANUARY 2019

- Jeremy Booher** Minimally ramified deformations when  $\ell \neq p$  1–37
- Alberto Vezzani** A motivic version of the theorem of Fontaine and Wintenberger 38–88
- Xiaokui Yang** A partial converse to the Andreotti–Grauert theorem 89–99
- P. Koymans** and **D. Z. Milovic** Spins of prime ideals and the negative Pell equation  $x^2 - 2py^2 = -1$  100–125
- Andrew Granville, Adam J. Harper** and **K. Soundararajan** A new proof of Halász’s theorem, and its consequences 126–163
- Ben Elias** and **Matthew Hogancamp** On the computation of torus link homology 164–205
- Taras Panov** and **Stephen Theriault** The homotopy theory of polyhedral products associated with flag complexes 206–228

© Foundation Compositio Mathematica

**Cambridge Core**

For further information about this journal please  
go to the journal website at:  
[cambridge.org/com](http://cambridge.org/com)

**CAMBRIDGE**  
UNIVERSITY PRESS



LONDON  
MATHEMATICAL  
SOCIETY  
EST. 1865