

Zeitschrift: Commentarii Mathematici Helvetici
Herausgeber: Schweizerische Mathematische Gesellschaft
Band: 94 (2019)
Heft: 4

Inhaltsverzeichnis

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

Download PDF: 18.04.2026

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

Vol. 94
2019

Commentarii Mathematici Helvetici

A journal of the Swiss Mathematical Society



European Mathematical Society

Commentarii Mathematici Helvetici (CMH)

A journal of the Swiss Mathematical Society

Aims and Scope

Commentarii Mathematici Helvetici (CMH) was established on the occasion of a meeting of the Swiss Mathematical Society in May 1928. The first volume was published in 1929. The journal soon gained international reputation and is one of the world's leading mathematical periodicals. The first Managing Editor was R. Fueter, followed in 1950 by J. J. Burckhardt, 1982 by P. Gabriel, 1990 by H. Kraft, and 2006 by Eva Bayer-Fluckiger.

The journal is intended for the publication of original research articles on all aspects in mathematics.

Editor-in-Chief

E. Bayer-Fluckiger, Ecole Polytechnique Fédérale de Lausanne,
Switzerland
eva.bayer@epfl.ch

Editorial office

Commentarii Mathematici Helvetici
E. Bayer-Fluckiger
Ecole Polytechnique Fédérale de Lausanne
CSAG-IMB-FSB Station 8
CH-1015 Lausanne
Switzerland
e-mail: cmh@epfl.ch

Editorial Committee

A. Beauville, Université de Nice, France
beauville@math.unice.fr
M. Burger, ETH Zürich, Switzerland
burger@math.ethz.ch
T. Colding, New York University, USA
colding@cims.nyu.edu
H. Darmon, McGill University, Montreal, Canada
darmon@math.mcgill.ca
U. Hamenstädt, Universität Bonn, Germany
ursula@math.uni-bonn.de
E. Kowalski, ETH Zürich, Switzerland
kowalski@math.ethz.ch
N. Monod, EPFL Lausanne, Switzerland
nicolas.monod@epfl.ch
D.A. Salamon, ETH Zürich, Switzerland
dietmar.salamon@math.ethz.ch
A. Wilkinson, University of Chicago, USA
wilkinso@math.uchicago.edu

Advisory Board

Urs Lang, Anand Dessai, Nicolas Monod, Christine Riedtmann,
Bruno Colbois, Viktor Schroeder, Norbert Hungerbühler, Peter Buser,
Rolf Jeltsch, Gerhard Wanner, François Sigrist, Harald Holmann, Urs
Stammach, Norbert A'Campo, Henri Carnal, Alain Robert, André
Haefliger, Marcus Grote, Zoltan Balogh, Ruth Kellerhals, Andras
Szenes, Elisa Gorla, Enrico De Giorgi, Stefan Wolf, Marc Burger

Subscription Information

Commentarii Mathematici Helvetici is published in one volume per annum, four issues per volume. Approximately 800 pages, 17 × 24 cm.

Print ISSN: 0010-2571
Online ISSN: 1420-8946

The annual subscription rate is 328 Euro (online only) or 388 Euro (print+online), respectively. The online subscription includes access to the electronic version from IP addresses provided by the customer. The print and online subscription comprises one copy of the print version (postage and handling included) and access to the electronic version from IP addresses provided by the customer.

Other subscriptions on request.

The journal may be ordered from your bookseller, subscription agency, or directly from the publisher. Please address orders and correspondence to:

EMS Publishing House
Technische Universität Berlin
Mathematikgebäude
Straße des 17. Juni 136
10623 Berlin, Germany

email: subscriptions@ems-ph.org
<http://www.ems-ph.org>

© 2019 European Mathematical Society

All rights reserved; no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without either the prior written permission of the Publisher, or a licence permitting restricted copying issued by a copyright clearance centre such as the Verwertungsgesellschaft WORT in Munich, Germany, or the Copyright Clearance Center Inc., 222 Rosewood Drive, Danvers, MA 01923, USA.

Contents of Volume 94, 2019

B. TOTARO, Essential dimension of the spin groups in characteristic 2	1
S. FRIEDL AND W. LÜCK, The L^2 -torsion function and the Thurston norm of 3-manifolds	21
A. LUBOTZKY, J. F. MANNING AND H. WILTON, Generalized triangle groups, expanders, and a problem of Agol and Wise	53
A. BARTEL AND A. PAGE, Group representations in the homology of 3-manifolds	67
F. FRANCESCHINI, R. FRIGERIO, M. B. POZZETTI AND A. SISTO, The zero norm subspace of bounded cohomology of acylindrically hyperbolic groups	89
A. KOROPECKI AND A. PASSEGGI, A Poincaré–Bendixson theorem for translation lines and applications to prime ends	141
C. HOUDAYER AND S. RAUM, Locally compact groups acting on trees, the type I conjecture and non-amenable von Neumann algebras	185
P. YATSYNA, A lower bound for the rank of a universal quadratic form with integer coefficients in a totally real number field	221
S. BETTIN, S. DRAPPEAU AND L. SPIEGELHOFER, Statistical distribution of the Stern sequence	241
G. MARTONE AND T. ZHANG, Positively ratioed representations	273
T. GAUTHIER, Y. OKUYAMA AND G. VIGNY, Hyperbolic components of rational maps: Quantitative equidistribution and counting	347
C. JUDGE AND H. PARLIER, The maximum number of systoles for genus two Riemann surfaces with abelian differentials	399
P.-M. POLONI, Counterexamples to the complement problem	439
D. HUYBRECHTS, Motives of isogenous K3 surfaces	445
J. RAIMBAULT, Asymptotics of analytic torsion for hyperbolic three-manifolds	459
E. CARNEIRO, M. B. MILINOVICH AND K. SOUNDARARAJAN, Fourier optimization and prime gaps	533

M. R. R. ALVES AND M. MEIWES, Dynamically exotic contact spheres in dimensions ≥ 7	569
M. DE LA SALLE, A local characterization of Kazhdan projections and applications	623
M. BRANDENBURSKY AND M. MARCINKOWSKI, Aut-invariant norms and Aut-invariant quasimorphisms on free and surface groups	661
A. DIMCA, On rational cuspidal plane curves and the local cohomology of Jacobian rings	689
J. GELL-REDMAN AND J. SWOBODA, Spectral and Hodge theory of “Witt” incomplete cusp edge spaces	701
Y. HU, P. D. NELSON AND A. SAHA, Some analytic aspects of automorphic forms on $GL(2)$ of minimal type	767
J. BUSTILLO, Middle dimensional symplectic rigidity and its effect on Hamiltonian PDEs	803
C. ARAUJO AND S. DRUEL, Characterization of generic projective space bundles and algebraicity of foliations	833
S. IVANOV AND A. LYTCHAK, Rigidity of Busemann convex Finsler metrics	855
M. MIRZAKHANI AND B. PETRI, Lengths of closed geodesics on random surfaces of large genus	867