PRESS

EMS Series of Congress Reports

The *EMS Series of Congress Reports* publishes volumes originating from conferences or seminars focusing on any field of pure or applied mathematics. The individual volumes include an introduction into their subject and review of the contributions in this context. Articles are required to undergo a refereeing process and are accepted only if they contain a survey or significant results not published elsewhere in the literature.

Previously published in this series:

Trends in Representation Theory of Algebras and Related Topics, *A. Skowroński (Ed.)*
K-Theory and Noncommutative Geometry, *G. Cortiñas et al. (Eds.)*
Classification of Algebraic Varieties, *C. Faber, G. van der Geer, E. Looijenga (Eds.)*
Surveys in Stochastic Processes, *J. Blath, P. Imkeller, S. Rœlly (Eds.)*
Representations of Algebras and Related Topics, *A. Skowroński, K. Yamagata (Eds.)*
Contributions to Algebraic Geometry. Impanga Lecture Notes, P. *Pragacz (Ed.)*
Geometry and Arithmetic, *C. Faber, G. Farkas, R. de Jong (Eds.)*
Derived Categories in Algebraic Geometry. Toyko 2011, *Y. Kawamata (Ed.)*
Advances in Representation Theory of Algebras, *D. J. Benson, H. Krause, A. Skowroński (Eds.)*
Valuation Theory in Interaction, *A. Campillo, F.-V. Kuhlmann, B. Teissier (Eds.)*
Representation Theory – Current Trends and Perspectives, *H. Krause et al. (Eds.)*
Functional Analysis and Operator Theory for Quantum Physics. The Pavel Exner Anniversary Volume, *J. Dittrich, H. Kovařík, A. Laptev (Eds.)*
Schubert Varieties, Equivariant Cohomology and Characteristic Classes, *J. Buczyński, M. Michałek, E. Postinghel (Eds.)*
Non-Linear Partial Differential Equations, Mathematical Physics, and Stochastic Analysis, *F. Gesztesy et al. (Eds.)*
Spectral Structures and Topological Methods in Mathematics, *M. Baake, F. Götze, W. Hoffmann (Eds.)*
t-Motives: Hodge Structures, Transcendence and Other Motivic Aspects, *G. Böckle et al. (Eds.)*
Probabilistic Structures in Evolution, *E. Baake, A. Wakolbinger (Eds.)*
Partial Differential Equations, Spectral Theory, and Mathematical Physics. The Ari Laptev Anniversary Volume, *P. Exner, R. L. Frank, F. Gesztesy, H. Holden, T. Weidl (Eds.)*
Representations of Algebras and Related Structures, *A. B. Buan, H. Krause, Ø. Solberg (Eds.)*

Arithmetic of *L*-Functions

Proceedings of an International Conference
held at ICMAT, Madrid, May 2023

Edited by
Dominik Bullach
Daniel Macías Castillo

EMS PRESS

Editors

Dominik Bullach
Department of Mathematics
University College London
25 Gordon Street
London, WC1H 0AY, UK

E-mail: dominik.bullach@ucl.ac.uk

Daniel Macías Castillo
Instituto de Ciencias Matemáticas (ICMAT)
Calle Nicolás Cabrera, 13–15
28049 Madrid, Spain

E-mail: daniel.macias@icmat.es

Mathematics Subject Classification 2020: 11-06 (primary); 11G40, 11M38, 11G09, 11R23, 11R29, 11R42, 11R59, 11F80 (secondary)

Keywords: *L*-functions, Galois representations, Iwasawa theory

ISBN 978-3-98547-084-6, eISBN 978-3-98547-584-1, DOI 10.4171/ecr/20

Bibliographic information published by the Deutsche Nationalbibliothek
The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available on the Internet at http://dnb.dnb.de.

Published by EMS Press, an imprint of the

European Mathematical Society – EMS – Publishing House GmbH
Institut für Mathematik
Technische Universität Berlin
Straße des 17. Juni 136
10623 Berlin, Germany

https://ems.press

© 2025 EMS Press

Typeset by EMS Press
Printed in Germany
♾ Printed on acid free paper