Contemporary Mathematics

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Periods of Quaternionic Shimura Varieties. I.

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Kartik Prasanna

AMS American Mathematical Society

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2020 *Mathematics Subject Classification.* Primary 11F41, 11F27, 11G18.

Library of Congress Cataloging-in-Publication Data

Names: Ichino, Atsushi, 1976– author. | Prasanna, Kartik A., 1976– author.
Title: Periods of quaternionic Shimura varieties. I. / Atsushi Ichino, Kartik Prasanna.
Description: Providence, Rhode Island : American Mathematical Society, [2021] | Series: Contemporary mathematics, 0271-4132 ; volume 762 | Includes bibliographical references.
Identifiers: LCCN 2020044411 | ISBN 9781470448943 (paperback) | ISBN 9781470464189 (ebook)
Subjects: LCSH: Shimura varieties. | Quaternions. | AMS: Number theory – Discontinuous groups and automorphic forms – Automorphic forms on | Number theory – Discontinuous groups and automorphic forms – Theta series; Weil representation; theta correspondences | Number theory – Arithmetic algebraic geometry (Diophantine geometry) – Arithmetic aspects of modular and Shimura varieties
Classification: LCC QA242.5 .I24 2021 | DDC 516.3/5–dc23
LC record available at https://lccn.loc.gov/2020044411
Contemporary Mathematics ISSN: 0271-4132 (print); ISSN: 1098-3627 (online)
DOI: https://doi.org/10.1090/conm/762

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10 9 8 7 6 5 4 3 2 1 26 25 24 23 22 21

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This book formulates a new conjecture about quadratic periods of automorphic forms on quaternion algebras, which is an integral refinement of Shimura's algebraicity conjectures on these periods. It also provides a strategy to attack this conjecture by reformulating it in terms of integrality properties of the theta correspondence for quaternionic unitary groups. The methods and constructions of the book are expected to have applications to other problems related to periods, such as the Bloch-Beilinson conjecture about special values of L-functions and constructing geometric realizations of Langlands functoriality for automorphic forms on quaternion algebras.

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ISBN 978-1-4704-4894-3
9 781470 448943
CONM/762