Smooth-Automorphic Forms and Smooth-Automorphic Representations
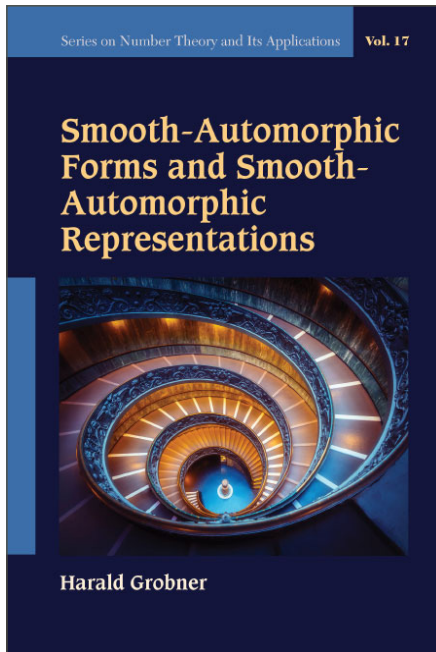
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ABOUT THE BOOK

This book provides a conceptual introduction into the representation theory of local and global groups, with final emphasis on automorphic representations of reductive groups G over number fields F.

Our approach to automorphic representations differs from the usual literature: We do not consider "K-finite" automorphic forms, but we allow a richer class of smooth functions of uniform moderate growth. Contrasting the usual approach, our space of "smooth-automorphic forms" is intrinsic to the group scheme G/F.

This setup also covers the advantage that a perfect representation-theoretical symmetry between the archimedean and non-archimedean places of the number field F is regained, by making the bigger space of smooth-automorphic forms into a proper, continuous representation of the full group of adelic points of G.

Graduate students and researchers will find the covered topics appear for the first time in a book, where the theory of smooth-automorphic representations is robustly developed and presented in great detail.

READERSHIP

PhD students and researchers in the fields of automorphic forms, representation theory of local groups (archimedean and non-archimedean) and, more generally, the Langlands Program.

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- **Local Groups:**
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ABOUT THE AUTHOR

Dr Harald Grobner's main scientific interests are located within the vital area of cohomological automorphic forms and their applications to number theory. He is particularly interested in the arithmetic and analytic theory of L-functions. This includes local and global representation theory and aspects in the geometry of arithmetically defined varieties.

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