

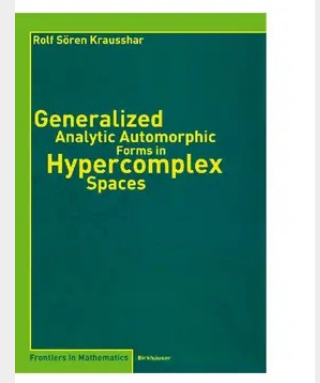
Generalized Analytic Automorphic Forms in Hypercomplex Spaces

This book describes the basic theory of hypercomplex-analytic automorphic forms and functions for arithmetic subgroups of the Vahlen group in higher dimensional spaces.

Hypercomplex analyticity generalizes the concept of complex analyticity in the sense of considering null-solutions to higher dimensional Cauchy-Riemann type systems. Vector- and Clifford algebra-valued Eisenstein and Poincaré series are constructed within this framework and a detailed description of their analytic and number theoretical properties is provided. In particular, explicit relationships to generalized variants of the Riemann zeta function and Dirichlet L-series are established and a concept of hypercomplex multiplication of lattices is introduced.

Applications to the theory of Hilbert spaces with reproducing kernels, to partial differential equations and index theory on some conformal manifolds are also described.

This book describes the basic theory of hypercomplex-analytic automorphic forms and functions for arithmetic subgroups of the Vahlen group in higher dimensional spaces. Hypercomplex analyticity generalizes the concept of complex analyticity in the sense of considering null-solutions to higher dimensional Cauchy-Riemann type systems. Vector- and Clifford algebra-valued Eisenstein and Poincaré series are constructed within this framework and a detailed description of their analytic and number theoretical properties is provided. In particular, explicit relationships to generalized variants of the Riemann zeta function and Dirichlet L-series are established and a concept of hypercomplex multiplication of lattices is introduced. Applications to the theory of Hilbert spaces with reproducing kernels, to partial differential equations and index theory on some conformal manifolds are also described.



58,84 €

54,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783764370596

Medium: Buch

ISBN: 978-3-7643-7059-6

Verlag: Springer

Erscheinungstermin: 23.02.2004

Sprache(n): Englisch

Auflage: 2004

Serie: Frontiers in Mathematics

Produktform: Kartoniert

Gewicht: 487 g

Seiten: 168

Format (B x H): 216 x 279 mm

