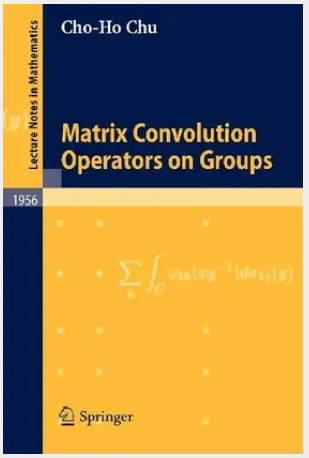
Chu

Matrix Convolution Operators on Groups

In the last decade, convolution operators of matrix functions have received unusual attention due to their diverse applications. This monograph presents some new developments in the spectral theory of these operators. The setting is the L spaces of matrix-valued functions on locally compact groups. The focus is on the spectra and eigenspaces of convolution operators on these spaces, defined by matrix-valued measures. Among various spectral results, the L -spectrum of such an operator is completely determined and as an application, the spectrum of a discrete Laplacian on a homogeneous graph is computed using this result. The contractivity properties of matrix convolution semigroups are studied and applications to harmonic functions on Lie groups and Riemannian symmetric spaces are discussed. An interesting feature is the presence of Jordan algebraic structures in matrix-harmonic functions.

In the last decade, convolution operators of matrix functions have received unusual attention due to their diverse applications. This monograph presents some new developments in the spectral theory of these operators. The setting is the Lspaces of matrix-valued functions on locally compact groups. The focus is on the spectra and eigenspaces of convolution operators on these spaces, defined by matrix-valued measures. Among various spectral results, the L-spectrum of such an operator is completely determined and as an application, the spectrum of a discrete Laplacian on a homogeneous graph is computed using this result. The contractivity properties of matrix convolution semigroups are studied and applications to harmonic functions on Lie groups and Riemannian symmetric spaces are discussed. An interesting feature is the presence of Jordan algebraic structures in matrix-harmonic functions.



37,40 €
34,95 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783540697978
Medium: Buch
ISBN: 978-3-540-69797-8
Verlag: Springer
Erscheinungstermin: 25.08.2008
Sprache(n): Englisch
Auflage: 1. Auflage 2008
Serie: Lecture Notes in Mathematics
Produktform: Kartoniert
Gewicht: 207 g
Seiten: 114
Format (B x H): 155 x 235 mm

Kundenservice Verlag Dr. Otto Schmidt KG
Neumannstraße 10, 40235 Düsseldorf | kundenservice@otto-schmidt.de | 0221-93738-997 (Inland)