

Contents

Preface	v
Positivity of zeta distributions and small unitary representations L. BARCHINI, M. SEPANSKI, and R. ZIERAU	1
The heat equation and representations of the Jacobi group R. BERNDT	47
Kato's inequality and asymptotic spectral properties for discrete magnetic Laplacians J. DODZIUK and V. MATHAI	69
The heat kernel in low-dimensional quantum theories D. FINE	83
Heat kernels on weighted manifolds and applications A. GRIGOR'YAN	93
Heat kernels in geometric evolution equations J. GROTOWSKI	193
The range of the heat operator B. HALL	203
Heat kernels and cycles B. HARRIS	233
Green currents on Kähler manifolds G. HEIN	245
Heat kernels and Riesz transforms S. HOFMANN	257
The contest between the kernels in the Selberg trace formula for the $(q + 1)$ -regular tree M. HORTON, D. NEWLAND, and A. TERRAS	265
Expressing Arakelov invariants using hyperbolic heat kernels J. JORGENSEN and J. KRAMER	295
Grassmanians of higher local fields and multivariable tau functions M. LEE and E. PREVIATO	311

Heat kernels and the range of the trace on completions of twisted group algebras	
V. MATHAI, with an appendix by I. CHATTERJI	321
Theta functions, old and new	
E. PREVIATO	347
The heat kernel on the symmetric space $\mathbf{SL}(n, \mathbf{F})/\mathbf{SU}(n, \mathbf{F})$	
P. SAWYER	369
Incidence structure	
B. WANG	393