Contents

Preface vii
Conference Attendees xi
Conference Speakers xiii
Introduction 1
Functoriality of Rieffel’s Generalised Fixed-Point Algebras for Proper Actions 9
Astrid an Huef, Iain Raeburn, and Dana P. Williams
Twists of $K$-theory and $TMF$ 27
Matthew Ando, Andrew J. Blumberg, and David Gepner
Division Algebras and Supersymmetry I 65
John C. Baez and John Huerta
$K$-homology and D-branes 81
Paul Baum
Riemann-Roch and Index Formulae in Twisted $K$-theory 95
Alan L. Carey and Bai-Ling Wang
Noncommutative Principal Torus Bundles via Parametrised Strict Deformation Quantization 133
Keith C. Hannabuss and Varghese Mathai
A Survey of Noncommutative Yang-Mills Theory for Quantum Heisenberg Manifolds 149
Sooran Kang
From Rational Homotopy to $K$-Theory for Continuous Trace Algebras 165
John R. Klein, Claude L. Schochet, and Samuel B. Smith
Distances between Matrix Algebras that Converge to Coadjoint Orbits 173
Marc A. Rieffel
Geometric and Topological Structures Related to M-branes 181
Hisham Sati
Landau-Ginzburg Models, Gerbes, and Kuznetsov’s Homological Projective Duality 237
Eric Sharpe