Contents

Pretace	vii
Conference participants	ix
The Milnor sequence for $W_q\mathcal{F}(x)$ in characteristic 2 when \mathcal{F} is perfect ROBERTO ARAVIRE AND BILL JACOB	1
Spinor norm for local skew-Hermitian forms Luis Arenas-Carmona	19
An introduction to triangular Witt groups and a survey of applications PAUL BALMER	31
Regularity properties of positive definite integral quadratic forms Wai Kiu Chan, A. G. Earnest, and Byeong-Kweon Oh	59
Effective results on representations of quadratic forms WAI KIU CHAN AND MARIA INES ICAZA	73
Quaternary quadratic forms and Hilbert modular surfaces WAI KIU CHAN AND MEINHARD PETERS	85
Real semigroups and abstract real spectra. I M. DICKMANN AND A. PETROVICH	99
The role of characteristic vectors in the neighbour lattice process MARK GAULTER	121
On representation by quadratic $\mathbb{F}_q[x]$ -lattices LARRY J. GERSTEIN	129
Diagonal forms of degree p in characteristic p DETLEV W. HOFFMANN	135
Local densities and the representations of an integer by a definite quadratic form	
Donald G. James	185
Periodicity of Hermitian K-theory and Milnors K-groups MAX KAROUBI	197
Third proof of second gap in dimensions of quadratic forms from I^n NIKITA A. KARPENKO	207

Myung-Hwan Kim	215
Special Siegel modular forms and singular series polynomials of quadratic forms Winfried Kohnen	229
Quasi-hyperbolicity of totally singular quadratic forms AHMED LAGHRIBI	237
Witt kernels of triquadratic extensions David B. Leep and Tara L. Smith	249
Anti-automorphisms of the second kind DAVID W. LEWIS	257
Reduction modulo 2 and 3 of Euclidean lattices, II JACQUES MARTINET	265
The elementary type conjecture in quadratic form theory M. MARSHALL	275
On Hilbert's theorem about ternary quartics ALBRECHT PFISTER	295
Representation by integral quadratic forms—a survey RAINER SCHULZE-PILLOT	303
Representations by spinor genera of ternary quadratic forms RAINER SCHULZE-PILLOT AND FEI XU	323
A survey and a complement of fundamental Hermite constants TAKAO WATANABE	339