

CONTENTS

Foreword	v
Opening Welcome G. Tallini	vii
Participants	xiii
Net of Rationality in a Minkowski Plane R. Artzy	1
A New Class of Translation Planes R.D. Baker and G.L. Ebert	7
Quasigroups and Groups Arising from Cubic Surfaces L. Beneteau	21
Blocking Sets in the Large Mathieu Designs, I: The Case S(3,6,22) L. Berardi	31
Blocking Sets in the Projective Plane of Order Four L. Berardi and F. Eugeni	43
Kalahari and the Sequence "Sloane No. 377" D. Betten	51
Enciphered Geometry. Some Applications of Geometry to Cryptography A. Beutelspacher	59
On Finite Grassmann Spaces P. Biondi	69
The Regular Subgroups of the Sharply 3-Transitive Finite Permu- tation Groups A. Bonisoli	75
Hyperovals in Desarguesian Planes of Even Order W. Cherowitzo	87
Circular Block Designs from Planar Near-Rings J.R. Clay	95
Extending the Concept of Decomposability for Triple Systems C.J. Colbourn, E. Mendelsohn, and A. Rosa	107
Translation Partial Geometries F. De Clerck, H. Gevaert, and J.A. Thas	117
On Admissible Sets with Two Intersection Numbers in a Projective Plane M.J. De Resmini	137

Commutative Finite A-Hypergroups of Length Two M. De Salvo	147
On Sets of Fixed Parity in Steiner Systems F. Eugeni and S. Innamorati	157
Blocking Sets of Index Two F. Eugeni and E. Mayer	169
A Short Proof that Ordered Linear Spaces are Locally Projective R. Frank	177
Midpoints and Midlines in a Finite Hyperbolic Plane C.W.L. Garner	181
Hall-Ryser Type Theorems for Relative Difference Sets D. Ghinelli Smit	189
Coordination of Generalized Quadrangles G. Hanssens and H. Van Maldeghem	195
Construction of Some Planar Translation Spaces A. Herzer	209
Regular Sets in Geometries J.D. Key	217
Group Preserving Extensions of Skew Parabola Planes N. Knarr	225
Products of Involutions in Orthogonal Groups F. Knüppel	231
Examples of Ovoidal Möbius Planes of Hering Class III H.-J. Kroll	249
A Construction of Pairs and Triples of k -Incomplete Orthogonal Arrays P. Lancellotti and C. Pellegrino	251
Relative Infinity in Projective De Sitter Spacetime and Its Relation to Proper Time J.A. Lester	257
Affine Hjelmslev Rings and Planes J.W. Lorimer	265
Irreducible Representations of Hecke Algebras of Rank 2 Geometries S. Löwe	277
A Characterization of Pappian Affine Hjelmslev Planes H. Mäurer and W. Nolte	281
Embedding Locally Projective Planar Spaces into Projective Spaces K. Metsch	293
On Topological Incidence Groupoids R. Meyer, J. Misfeld, and E. Zizioli	297
Isomorphisms of Finite Hypergroupoids R. Migliorato	301

Seminversive Planes D. Olanda	311
Geometric and Algebraic Methods in the Classification of Geometries Belonging to Lie Diagrams A. Pasini	315
The Thas-Fisher Generalized Quadrangles S.E. Payne	357
On Group Spaces Defined by Semidirect Products of Groups J. Pfalzgraf	367
On Permutation Properties for Finitely Generated Semigroups G. Pirillo	375
On k -Sets of Type (O, m, n) in $S_{n, q}$ with Three Exterior Hyperplanes R. Procesi Ciampi and R. Rota	377
An Algorithm for L_S -colourations L. Puccio	385
A Blocking Set in $PG(3, q)$, $q \geq 5$ S. Rajola	391
A Characterization of all Abelian Groups whose Lattice of Precompact Group Topologies Represents a Projective Geometry D. Remus	395
Groups of Homologies in 4-Dimensional Stable Planes are Classical H.-P. Seidel	399
Polynomial Species and Connections among Bases of the Symmetric Polynomials D. Senato and A.M. Venezia	405
Set and Sequence Closure for Finite Permutation Groups J. Siemons	413
P-Cyclic Hypergroups with Three Characteristic Elements S.H. Spartalis and T.N. Vougiouklis	421
Order and Uniform Structure in Projective Geometry H. Szambien	427
On Blocking Sets in Finite Projective and Affine Spaces G. Tallini	433
Symmetric Designs without Ovals and Extremal Self-Dual Codes V.D. Tonchev	451
Groups in Hypergroups T. Vougiouklis	459
The Perron-Frobenius Projection in the Theory of Graphs, Digraphs, Designs and Stochastic Processes K.E. Wolff	469
On the Non-Existence of Certain Difference Sets N. Zagaglia Salvi	479

On Complete 12-Arcs in Projective Planes of Order 12 C. Zanella	485
Block Designs Admitting Flag Transitive Groups of Automorphisms P.-H. Zieschang	493
An Independence Theorem on the Conditions for Incidence Loops E. Zizioli	497