

CONTENTS

Volume I

PREFACE	3
CONTENTS	5
SCIENTIFIC PROGRAM	9
LIST OF PARTICIPANTS	16
V.A. Aksionov – L.S. Mel'nikov, Essay on the theme: The three-color problem	23
L. Babai – P. Frankl, Isomorphisms of Cayley graphs I.	35
L. Babai – J. Nešetřil, High chromatic rigid graphs I.	53
Z. Baranyai, On a search problem of G.O.H. Katona	61
J. Beck, A concentration problem in combinatorial number theory	77
H. Beker, Strongly divisible designs	91
G.B. Beljavskaja – S. Murathudjaev, About admissibility of N -ary quasigroups	101
C. Berge, Multicolorings	121
J.-C. Bermond – A. Kotzig – J. Turgeon, On a combinatorial problem of antennas in radioastronomy	135
J. Bosák, Geodetic graphs	151
A.E. Brouwer, On associative block designs	173
F.C. Bussemaker – D.M. Cvetković – J.J. Seidel, Graphs related to exceptional root systems	185
G. Chaty, On critically and minimally k -vertex (arc) strongly connected digraphs	193
C.C. Chen – A.J.W. Hilton, A 4-colour conjecture for planar graphs	205
F.R.K. Chung – R.L. Graham – N. Pippenger, On graphs which contain all small trees, II.	213
W. Deuber – B. Rothschild, Categories without the Ramsey property	225
M. Deza – P. Erdős – P. Frankl, Intersection properties of systems of finite sets	251
W. Dörfler, A complete lattice in graph theory	257

D. Duffus – I. Rival, Crowns in dismantlable partially ordered sets	271
C.S. Edwards, Complete subgraphs with largest sum of vertex degrees	293
R.J. Faudree – R.H. Schelp, Connected Ramsey numbers for paths and stars	307
M. Fiedler, Aggregation in graphs	315
S. Földes – P.L. Hammer, On a class of matroid-producing graphs	331
A. Frank – A. Gyárfás, How to orient the edges of a graph?	353
P. Frankl, The Erdős – Ko – Rado theorem is true for $n = ckt$..	365
M.R. Garey – R.L. Graham – D.S. Johnson, On a number-theoretic bin packing conjecture	377
A. Germa, Decomposition of the edges of a complete t -uniform directed hypergraph	393
R. Giles, Facets and other faces of branching polyhedra	401
M.C. Golumbic, Threshold graphs and synchronizing parallel processes	419
I. Gutman, Partial ordering of forests according to their characteristic polynomials	429
R.K. Guy, Partizan and impartial combinatorial games	437
A. Gyárfás – J. Lehel, Packing trees of different order into K_n ..	463
B. Gyires, On permanent inequalities	471
E. Győri, On division of graphs to connected subgraphs	485
R. Häggkvist, A solution of the Evans conjecture for latin squares of large size	495
M. Hall Jr., Matrices satisfying the incidence equation	515
H. Harborth, Crossings on edges in drawings of complete multipartite graphs	539
B. Harris, On a theorem of Volosin concerning enumeration of function compositions	553
M.-C. Heydemann – D. Sotteau, Line-graphs of hypergraphs II.	567
C. Hoede, On characterization of Hamiltonian graphs	583
A.J. Hoffman – D.E. Schwartz, On a lattice polyhedra	593
S.G. Hoggar, Equiangular lines	599

W. Imrich, Graphical regular representations of groups of odd order	611
R. Indik – V. Pless, Code graphs	623
S. Jendrol', On the face-vectors and vertex-vectors of maps	629
L. Kászonyi, An example for geometries having property $K(4)$ and being not four-colourable	635
L. Kászonyi, On half-planar geometries	639
G.O.H. Katona, Continuous versions of some extremal hypergraph problems	653
A.V. Kostochka, Degree, girth and chromatic number	679
A. Kotzig – J. Turgeon, β -valuations of regular graphs with complete components	697
R. Laskar, Decomposition of some composite graphs into Hamilton cycles	705
L. Lovász, Some finite basis theorems on graph theory	717
L. Lovász – K. Vesztergombi, Restricted permutations and Stirling numbers	731
W. Mader, On n -connected subsets of a graph	739
C.St.J.A. Nash-Williams, Should axiomatic set theory be translated into graph theory?	743
J. Nešetřil – V. Rödl, Partition (Ramsey) theory – a survey	759
C. Palm – J.M.S. Simões-Pereira, Edge sets of hypergraphs with a B_q -like property and partition numbers of graphs	793
A. Pultr, On productive classes of graphs determined by prohibiting given subgraphs	805
D.K. Ray-Chaudhuri, Some characterization theorems for graphs and incidence structures	821
R.C. Read – P. Rosenstiehl, On the Gauss crossing problem	843
A. Recski, Contributions to the n -port interconnection problem by means of matroids	877
A. Recski, Matroidal structure of n -ports	893
P.J. Robinson – J.S. Wallis, A note on using sequence to construct orthogonal designs	911

I.Z. Ruzsa , On the cardinality of $A + A$ and $A - A$	933
I.Z. Ruzsa – E. Szemerédi , Triple systems with no six points carrying three triangles	939
H. Sachs , On a theorem connecting the factors of a regular graph with the eigenvectors of its line graph	947
G. Schaar , On 3-Hamiltonian cubes of connected graphs	959
A. Schrijver , The linking of matroids by linking systems	973
J.J. Seidel , Eutactic stars	983
M. Sekanina , Hamiltonian lines in powers of infinite graphs	1001
M. Simonovits – V.T. Sós , Intersection theorems for graphs II. ..	1017
Z. Skupień , Finding all maximal path factors of a tree and related problems	1031
N.J.A. Sloane , New bounds for error-correcting codes and packing numbers (summary)	1045
F. Sterboul , A problem in constructive combinatorics and related questions	1049
L. Surányi , A note on a conjecture of Gallai concerning α -critical graphs	1065
W.T. Tutte , Chromatic sums	1075
B. Uhrin , On two combinatorial identities useful in linear inequalities	1081
K.S. Vijayan , On arc-transitive graphs	1091
H.-J. Voss , Maximal circuits and paths in graphs. Extreme cases	1099
W. Wessel , A second family of edge-critical wheels	1123
R.J. Wilson , Graph theory and chemistry	1147
A.P. Wojda , Strongly (p, q) -Hamiltonian graphs (some results)	1165
B. Zelinka , Dot-compositions of graphs	1169
NOTES AND PROBLEMS	1177
Đ. Kurepa , A combinatorial interpretation of a sequence of integers	1179
A. Marczyk , Properties of line multigraphs of hypergraphs	1185
PROBLEMS	1189