DIMATIA 1997-1999

compiled by

Jaroslav Nešetřil

Jan Kratochvíl

Vít Janota

DIMATIA, Faculty of Mathematics and Physics,
Charles University
Malostranské náměstí 25, 118 00 Praha 1, Czech Republic
E-mail address: dimatia@kam.ms.mff.cuni.cz

Abstract. This report is describing some of the activities of Prague group of DIMATIA centre, established in the fall 1996, during the period of the first three years of its existence (1997-1999). Next report will cover activities from all sites participating at DIMATIA activities.
The report is published at the opportunity of the first meeting of The International Scientific Advisory Board of DIMATIA (Prague, October 22-24, 1999)

Contents

Preface

Dear Colleagues,

on the eve of the first meeting of The International Scientific Advisory Board of DIMATIA (Prague, October 22-24, 1999) we are publishing the account of most of the activities of our new centre.
DIMATIA was established in the fall 1996. However its importance for us and Czech (and Slovak) mathematics and computer science far exceeds the dry list of meetings, visits, scientific works and other activities. Perhaps most importantly the centre inspired new and higher degree of cooperation within Czech Republic and abroad in the fields of **Di**screte **Ma**thematics, **T**heoretical **C**omputer **S**cience and **A**pplications[1]. Particularly, the cooperation of Faculty of Mathematics and Physics with Mathematical Institute of Czech Academy of Science (group leader P. Pudlák) proved to be very useful in research, educational and organizational activities.
The centre is well known within Czech Republic and other groups are participating in DIMATIA activities. This led to the formal association of University of West Bohemia, Pilsen (group leader Z. Ryjáček) and other institutions are expected to associate soon.
From the very start we received international support and particularly our connection with DIMACS was and is very intense. Many view DIMATIA as a little European DIMACS and we are proud of it. We couldn't wish a better context.
Also joint NSF-Czech grants proved to be a vital part of DIMATIA budget.
We are very fortunate that other European institutions associated themselves with DIMATIA. This we consider to be an essential part and special feature of our activity which is tailored to European context and our fields. We thank to all colleagues and hope that our collaboration will not only lead to the profit of both sides but to a qualitatively new level of cooperation. We are fully aware that without your support (scientific, organizational and financial) DIMATIA could operate on much smaller scale and its influence would be very limited.
We think that the past three years fully justified the center's existence. We hope that the next period will prove to be as fruitful as the period which is now ending.

prof. J. Nešetřil
director of DIMATIA

[1] Computer Science is in Czech *Informatika*, thus DIMATIA

CHAPTER 1

Organizational Structure

1.1. Funding Institutions

Charles University, Prague

Academy of Sciences of the Czech Republic, Prague

Institute of Chemical Technology, Prague

1.2. Associate Institutions

Alexander von Humboldt-Stiftung, Bonn (1996[1])

DIMACS, New Jersey (1996)

Forschungsinstitut für Dickrete Matematik, Institute für Ökonometrie und Operations Research, Rheinische Friedrich-Wilhelms-Universität Bonn (1996)

Institute for Computational Mathematics, Pisa (1997)

LaBRI, University of Bordeaux (1997)

Mathematical Institute of Hungarian Academy of Science, Budapest (1997)

Pacific Institute for the Mathematical Sciences, Vancouver (1997)

Sobolev Institute of Mathematics, Novosibirsk (1997)

SFB 343 Sonderforschungsbereich Diskrete Strukturen in der Mathematik, Universität Bielefeld (1997)

Faculty of Applied Sciences, University of West Bohemia, Pilsen (1998)

Departament de Llenguatges i Sistemes Informàtics, Universitat Politècnica de Catalunya, Barcelona (1999)

1.3. Personnel

In 1996 the personnel of DIMATIA was established as follows:

Director
Jaroslav Nešetřil (*Charles University*)

Deputy Director
Jan Kratochvíl (*Charles University*)

Scientific Secretary
Vít Janota (*Charles University*)

Executive Committee
Jaroslav Nešetřil, Jan Kratochvíl, Vít Janota, Petr Pančoška, Jaroslav Pokorný (*Charles University*)
Pavel Pudlák (*Academy of Science*)
Daniel Turzík (*Institute of Chemical Technology*)

[1] Year in brackets indicates the year of association

Members
Luděk Kučera, Jiří Matoušek, Pavel Valtr, Martin Loebl, Martin Klazar, Petr Pančoška (*Charles University*)
Ivan Havel, Jan Krajíček, Jiří Sgall, Pavel Pudlák (*Academy of Science*)
Daniel Turzík (*Institute of Chemical Technology*)

1.4. The International Scientific Advisory Board

Ivan Netuka (*Dean of Faculty of Mathematics and Physics, Charles University*)
Karel Segeth (*Director of Mathematical Institute ASCR*)
Karel Kadlec (*Dean of Faculty of Chemical Engineering, Institute of Chemical Technology*)
Antonín Kučera (*Deputy of Mathematical Section, Mathematical and Physical Faculty, Charles University*)
Bernhard Korte (*Director of Forschungsinstitut für Diskrete Matematik, Institute für Ökonometrie und Operations Research, Rheinische Friedrich-Wilhelms-Universität Bonn*)
Ronald Graham (*Chief Scientist of AT&T Labs Research*)
Vladimir L. Beresnev (*Deputy Director of Sobolev Institute Of Mathematics, Novosibirsk*)
Fred S. Roberts (*Director of DIMACS, New Jersey*)
Eric Sopena (*LaBRI, University of Bordeaux*)
Walter Deuber (*SFB 343 Sonderforschungsbereich Diskrete Strukturen in der Mathematik, Universität Bielefeld*)
Bruno Codenotti (*Director of Institute for Computational Mathematics, Pisa*)
Pavol Hell (*Pacific Institute for the Mathematical Sciences, Vancouver*)
Josep Díaz (*Departament de Llenguatges i Sistemes Informàtics, Universitat Politècnica de Catalunya, Barcelona*)
Zdeněk Ryjáček (*Faculty of Applied Sciences, University of West Bohemia, Pilsen*)

CHAPTER 2

Year 1996

2.1. First Steps

Autumn 1996 DIMATIA was formally established by signing contract at Charles University in Prague, Czech Republic, as a joint project of Faculty of Mathematics and Physics, Charles University, Academy of Sciences of the Czech Republic and Institute of Chemical Technology, Prague.
The purpose of the center is to foster research in all fields of discrete mathematics and its modern applications and relationship to computer science, operations research and fields as diverse as biology, chemistry and social sciences. Towards this end the center organizes a continuing program of workshops, conferences and research visits both in Prague and other places together with participating institutions. The activity of the center concentrates in the following directions:

- research workshops and conferences
- postdoctoral positions announced and supported jointly with our participating institutions
- short-term visits of senior researchers

Among the first steps of newly created centre belong:

- former KAM Series were renamed to KAM-DIMATIA Series to reflect the fact, that DIMATIA takes part of the responsibility for their publishing
- joint application with DIMACS for NSF-Czech grant (granted for 1997-1999)
- first three international institutions signed their association contracts with DIMATIA (Alexander von Humboldt-Stiftung, Bonn; Forschungsinstitut für Diskrete Matematik, Institute für Ökonometrie und Operations Research, Rheinische Friedrich-Wilhelms-Universität Bonn; DIMACS, New Jersey)
- DIMATIA started to participate at organizing of the prestigious cycle of Mathematical Colloquia (previously organized by Department of Applied Mathematics)
- Alexader von Humboldt-Stiftung donated the computer equipment for two of DIMATIA's offices

As a promise of future activities DIMATIA co-organized

on **November 21, 1996** 28th Mathematical Colloquium: talk given by Benoit Mandelbrot (*"Fractals in Mathematics and Science"*)

and

on **December 3, 1996** The Computer Science Colloquium: talk given by Ricardo Baeza-Yates (*"Combinatorial Problems in Strings"*).

CHAPTER 3

Year 1997

3.1. Overview of Events

January 1997 DIMATIA started its regular work.

Spring 1997 DIMATIA started to run its own web pages at
http://www.ms.mff.cuni.cz/acad/kam/dimatia/.

April 13-18, 1997 Spring School of Combinatorics, Borová Lada
Traditional meeting of students and their teachers. For the first time organized by DIMATIA. Proceedings were published in KAM-DIMATIA Series ([**1**]).

May 13, 1997 Newly refurbished offices of the center were festively opened at Department of Applied Mathematics (School of Computer Science). Offices were offered by Faculty of Mathematics and Physics. Official program of DIMATIA Opening Day included interesting talks of Zsolt Tuza, Margit Voigt and Jan Nekovář who gave the 30th Mathematical Colloquium. DIMATIA was also greeted by toasts of heads of founding institutions (B. Sedlák, K. Segeth and K. Kadlec) and refreshment in the new seminar room of DIMATIA.

May 1997 short term visitors
J. Nekovář (*Cambridge*)
M. Voigt (*Ilmenau*)
Z. Tuza (*Budapest*)

May 13, 1997 30th Mathematical Colloquium: talk given by Jan Nekovář (" *Values of θ-functions*").

May 19-25, 1997 One of the first DIMATIA's larger projects was organizing the conference **Future of Discrete Mathematics**, which was held at Štiřín castle. It was organized jointly with DIMACS. The meeting was successful and pleasant not only because of beautiful park and interiors of the fully preserved baroque castle, but also because of presence of large number of interesting people and talks.
Proceedings were published by American Mathematical Society ([**2**]).

Summer 1997 short term visitors
A. Raspaud (*Bordeaux*), in the framework of The Barrande project
M. Miller (*Newcastle*)
E. Dahlhaus (*Köln*)

July 28 - August 1, 1997 Prague Midsummer Combinatorial Workshop V The workshop continued the tradition of Prague Combinatorial Workshops held since 1993. Oriented on problems of all fields of graph theory, combinatorics and discrete geometry, it continued in the spirit and informal working atmosphere of the previous meetings. This year we had 25 international participants (including the last visit of P. Erdös to Prague).
Proceedings were published in KAM-DIMATIA Series ([**3**]).

August 1997 DIMATIA was elected as a site of the Seventh Annual European Symposium on Algorithms (ESA) for the year 1999.

September 1997 The first scholarship of DIMATIA was given to Josef Solymosi (*Budapest*).

September 14-16, 1997 Graphs & Geometry Workshop. This workshop was intended for researchers working in all aspects of graph theory related to geometrical issues and in discrete geometry. In pleasant milieu of DIMATIA center were invited lectures by Victor Klee (*Seattle*), Robin Thomas (*Atlanta*), Janos Pach (*New York*) and Hubert de Fraysseix (*Paris*) followed by informal and extensive discussions.

November 1997 Our doctoral student Tomáš Kaiser was awarded The Price of Hlávka's Foundation which is given each year to young Czech researchers for outstanding achievement in science.

November 1997 short term visitors
E. Sopena (*Bordeaux*), in the framework of The Barrande project
P. Hell (*Vancouver*)

November 1997 Ton Kloks from Utrecht started his one-year lasting postdoctoral position. During his stay at DIMATIA he wrote several articles ([**4**], [**5**]).

December 1997 short term visitors
V. Strassen (*Konstanz*)
O. Baudon (*Bordeaux*), in the framework of The Barrande project
H. Müller (*Jena*)

December 1997 Rolf Niedermeier from Tuebingen started his one-year lasting postdoctoral position, which was offered jointly with Alexander von Humboldt-Stiftung. During his stay at DIMATIA he wrote several articles ([**6**], [**7**], [**8**]).

December 4, 1997 31th Mathematical Colloquium: talk given by Volker Strassen ("*Algebra and Complexity*").

December 11, 1997 DIMATIA co-organized joint LaBRI-DIMATIA one-day miniconference **Journeé Graphes** at LaBRI, University of Bordeaux. The miniconference was organized in terms of The Barrande project.

3.2. Teaching Activities

During 1997 members of Prague group of DIMATIA provided following seminars and lectures:

Combinatorial Seminar (*Klazar, Kratochvíl, Loebl, Matoušek, Nešetřil, Valtr*)
Cryptography Seminar (*Pudlák*)
Discrete Mathematics (*Kratochvíl, Matoušek*)
Combinatorics, Graph Theory (*Nešetřil*)
Probabilistic Methods (*Matoušek*)
Algorithms (*Kučera*)
Partition Theory (*Nešetřil*)
Graph Representation (*Kratochvíl, Hliněný*)
Computational Geometry (*Matoušek, Valtr*)
Recent Trends in Computer Science (jointly DIMATIA: *Krajíček, Matoušek, Sgall, Pudlák, Kratochvíl, Nešetřil*)
Derandomization Methods (*Sgall*)
Complexity Classes, Lovasz θ-function (*Turzík*)

CHAPTER 4

Year 1998

4.1. Overview of Events

March 1998 Short term visitors:
K. Reuter (*Hamburg*)

April 1998 Short term visitors:
P. Rossmanith (*München*)

April 7, 1998 32nd Mathematical Colloquium: talk given by Jennifer Chayes (*"Birth of the Infinite Cluster: Finite-size Scaling in Percolation"*).

April 20-24, 1998 Spring School of Combinatorics, Borová Lada. Traditional meeting of students and their teachers.

May 1998 Short term visitors:
S. Brandt (*Berlin*)
R. Živalijevič (*Beograd*)

June 8-10, 1998 Joint DIMACS-DIMATIA workshop **From Erdös to Algorithms** (shortly **e2a**), DIMACS, New Jersey. Organized by Joel Spencer (*DIMACS*) and Jaroslav Nešetřil (*DIMATIA*). The workshop was intended not only to remember the memory of Paul Erdös, but also to illustrate the influence of P. Erdös's mathematics on modern branches of mathematics and computer science. Abstracts were published in KAM-DIMATIA Series ([**9**]).

July 6-11, 1998 Fifth Czech-Slovak International Symposium on Combinatorics, Graph Theory, Algorithms and Applications, Suchdol Campus of Agricultural University, Prague. The Symposium was organized by DIMATIA in cooperation with the majority of Czech and Slovak universities and academic institutions as the fifth in a series of symposia which started with 1963 Smolenice meeting and continued in 1974, 1982 (Prague) and 1990 (Prachatice). This year there were more than 200 participants from all over the world. The scientific program, divided into five sections, covered almost all aspects of contemporary combinatorics and graph theory from both the theoretical and applied viewpoints.
Proceedings of the symposium will be published by Elsevier North-Holland as a special volumes of Discrete Mathematics. Abstracts were published in KAM-DIMATIA Series ([**10**]).

August 1998 Joint DIMACS-DIMATIA workshop **On Computational Geometry**, DIMATIA, Prague. Workshop was organized by Jiří Matoušek and Pavel Valtr. Several international leaders participated (R. Shamir (*Tel Aviv*), B. Chazelle (*Princeton*)).

October 1998 Short term visitors:
P. Hell (*Burnaby*)

October 1998 DIMATIA was jointly with LaBRI, Bordeaux, Rheinische Friedrich-Wilhelms-Universität Bonn and Humboldt Universität, Berlin awarded an EU grant in terms of IP-Socrates Program to support The International Spring School of Combinatorics '99.

November 1998 Short term visitors:
S. McGuiness (*Umea*)
H. J. Prömel (*Berlin*)

November 1998 DIMATIA was jointly with Rutgers, The State University of New Jersey awarded a grant in terms of REU Program to support international exchange visitors program of students.

December 1998 Joint LaBRI-DIMATIA workshop **Journeé Graphes** at LaBRI, University of Bordeaux, continued the tradition of miniconferences successfully started in the year 1997.

4.2. Teaching Activities

During 1998 members of Prague group of DIMATIA provided following seminars and lectures:

Graphs and Algorithms for Mathematicians (*Kratochvíl*)
Combinatorial and Computational Geometry (*Matoušek, Valtr*)
Mathematical Programming and Polyedral Combinatorics (*Valtr*)
Combinatorics and Graph Theory II (*Kratochvíl*)
Applications of Linear Algebra in Combinatorics (*Kratochvíl*)
Combinatorial Structures (*Kratochvíl*)
Seminar from Computational Complexity (*Sgall, Pudlák*)
Probabilistic Algorithms (*Sgall*)
Cryptography Seminar (*Pudlák*)
Combinatorial Computing (*Klazar*)
Introduction to Number Theory (*Klazar*)
Partition Theory (*Nešetřil*)
Combinatorial Seminar (*Matoušek, Nešetřil*)

CHAPTER 5

Year 1999

5.1. Overview of Events

January 29, 1999 DIMATIA Graph Theory Day, DIMATIA, Prague. Newly started tradition of one day meetings of scientists.

February 1999 Short term visitors:
B. Banachewski (*Hamilton*)

February 9, 1999 33rd Mathematical Colloquium: talk given by Bernhard Banaschewski (*"Propositional Theories, Frames and Fuzzy Algebra"*).

Spring 1999 DIMATIA was awarded a grant "GAČR 210/99/0242 DIMATIA" with budget 643.000,- CZK per year. Main goal of the grant is to support visitors and postdoctoral program at DIMATIA.

Spring 1999 DIMATIA offered new postdoctoral positions available from summer 1999. Both long and short term stays at DIMATIA are possible.

March 1999 Short term visitors:
J. Díaz (*Barcelona*)
E. Mayr (*München*)
P. Widmayer (*Zurich*)
L. H. Kaufmann (*Chicago*)
G. Woeginger (*Graz*)

March 16, 1999 34th Mathematical Colloquium: talk given by Louis H. Kauffman (*"Introduction to Quantum Link Invariants"*).

April 1999 Short term visitors:
P. Hell (*Burnaby*)
J. Marks (*Cambridge*)
J. Chayes (*New Jersey*)
A. Raspaud (*Bordeaux*)

April 15, 1999 The series of DIMATIA Computer Science Colloquia continued with talk given by Joe Marks (*"Graphics Made Easier (Through Computational Geometry and Optimization)"*).

April-June, 1999 In KAM-DIMATIA series the lecture notes for students of Spring School of Combinatorics and international summer program (REU program) were published ([**11**], [**12**], [**13**], [**14**], [**15**], [**16**]).

April 19-30, 1999 Spring School of Combinatorics, organized by DIMATIA jointly with LaBRI, University of Bordeaux, Rheinische Friedrich-Wilhelms-Universität Bonn and Humboldt Universität, Berlin, supported by EU grant in terms of IP-Socrates program, Borová Lada and Finsterau. Traditional meeting of students and their teachers in beautiful nature of Šumava National Park went through several changes. The most remarkable of them are, that this year the intensive program of school lasted two weeks (with the second half in German Finsterau) and that more then 40 students from organizing institutions participated.

May 1999 Short term visitors:
E. Sopena (*Bordeaux*)

May 18, 1999 Visit of representative of NSF Mrs. Bonnie H. Thompson at DIMATIA.

June 1999 Short term visitors:
M. Rosenfeld (*Seattle*)

June - July, 1999 Two students and a leader participant were visiting at Rutgers, The State University of New Jersey, in terms of REU program.

June 2-4, 1999 Joint DIMACS-DIMATIA **Workshop on Algebraic Methods and Arithmetic Circuits**, DIMACS Center, New Jersey. This workshop was intended to exploitation of algebraic techniques on some of the central problems of theoretical computer science.

June, 1999 35th Mathematical Colloquium: talk given by Gilles Pisier (*"Similarity Problems for Hilbert Space Operators and Related Algebras"*).

June 6-11, 1999 DIMATIA supported **The International Conference on P. Erdös Mathematics** in Budapest.

July 1999 Short term visitors:
B. Steiger (*New Jersey*)
W. Hochstätter (*Köln*)
M. Pelegrini (*Pisa*)

July - August, 1999 Ten students from Rutgers, The State University of New Jersey, were visiting at DIMATIA in terms of REU program.

July, 1999 Visit of scientific attache of US Embassy at DIMATIA.

July 16-18, 1999 Seventh Annual European Symposium on Algorithms, ESA '99, hotel PRAHA, Prague, organized by DIMATIA. The silent milieu of the hotel located in the residential area of green gardens in suburban district Hanspaulka guaranteed the best conditions for meeting of more than 100 participants.
Proceedings were published by Springer-Verlag ([**17**]).

July 26-30, 1999, **6th Prague Midsummer Combinatorial Workshop**, organized by DIMATIA, Prague. 6th in the line of meetings lost nothing from pleasant and working atmosphere of previous workshops.

August 1999 Short term visitors:
M. Katchalski (*Haifa*)

September 1999 DIMATIA was jointly with LaBRI, Bordeaux, Rheinische Friedrich-Wilhelms-Universität Bonn, Humboldt Universität, Berlin and Institute for Computational Mathematics, Pisa awarded for the second term the EU grant in terms of IP-Socrates Program to support The International Spring School of Combinatorics '00.

September 1999 Short term visitors:
H. de Fraysseix (*Paris*)
P. Osona (*Bordeaux*)

W. Basalaj (*Ljubljana*)
B. Mohar (*Ljubljana*)

September 16-18, 1999, **Graph Drawing '99**, organized by DIMATIA, Štiřín castle. After two years DIMATIA returned to beautiful area of Štiřín castle. This year conference took place in newly refurbished conference centre in former stables of the castle. There were more then 70 participants.
Proceedings will be published by Springer-Verlag.

October 22-24, 1999 The first meeting of The International Scientific Advisory Board of DIMATIA, Štiřín castle.

5.2. Teaching Activities

During 1999 members of Prague group of DIMATIA provide following seminars and lectures:

Graphs and Algorithms for Mathematicians (*Kratochvíl*)
Combinatorial and Computational Geometry II (*Matoušek, Valtr*)
Mathematical Programming and Polyedral Combinatorics (*Valtr*)
Combinatorics and Graph Theory II (*Kratochvíl*)
Applications of Linear Algebra in Combinatorics (*Kratochvíl*)
Combinatorial Structures (*Kratochvíl*)
Seminar from Computational Complexity (*Sgall, Pudlák*)
Probabilistic Algorithms (*Sgall*)
Cryptography Seminar (*Pudlák*)
Combinatorial Computing (*Klazar*)
Introduction to Number Theory - continuing (*Klazar*)
Combinatorial Seminar (*Matoušek, Nešetřil*)

Appendices

Appendix A

1997-1999 Title-list of KAM-DIMATIA Series[1]

1997

(97-338) J. Nešetřil: A few remarks on the history of MST-problem.
(97-339) M. Klazar (ed.): Fourth Prague combinatorial workshop.
(97-340) A. Tharwat, K. Zimmermann: Some optimization problems on solubility sets of separable max-min equations and inequalities.
(97-341) J. Matoušek: An L_p version of the Beck-Fiala conjecture.
(97-342) J. Kratochvíl, P. Mihók, G. Semanisin: Graphs maximal with respect to hom-properties.
(97-343) J. Kratochvíl, J. Nešetřil, M. Rosenfeld: Graph designs, Hadamard matrices and geometric configurations.
(97-344) J. Kratochvíl, P. Mihók: Hom-properties are uniquely factorizable into irreducible factors.
(97-345) J. Kratochvíl, Zs. Tuza, M. Voigt: Brooks type theorems for choosability with separation.
(97-346) M. Klazar (ed.): Third annual DONET meeting.
(97-347) P. Hliněný, J. Kratochvíl: Computational complexity of the Krausz dimension of graphs.
(97-348) P. Valtr: On geometric graphs with no k pairwise parallel edges.
(97-349) P. Valtr: On the density of subgraphs in a graph with bounded independence number.
(97-350) reserved
(97-351) DIMATIA-DIMACS conference: The future of discrete mathematics; Štiřín, May 19-25, 1997.
(97-352) B. Gruber: Classification of lattices.
(97-353) A. Pultr, J. Sichler: Finite commutative monoids of open maps.
(97-354) J. Kratochvíl, J. A. Telle: Complexity of colored graph covers II. When 2-SAT helps.
(97-355) G. Karolyi, J. Pach, G. Toth, P. Valtr: Ramsey-type results for geometric graphs II.
(97-356) M. Klazar: Note on the maximum size of a Sidon set.
(97-357) O. V. Borodin, A. V. Kostochka, J. Nešetřil, A. Raspaud, E. Sopena: On universal graphs for planar oriented graphs of a given girth.

[1]These series include papers related to Prague group. At the meeting of The International Scientific Advisory Board of DIMATIA it has been decided that in the end of the year 1999 DIMATIA will start to publish DIMATIA Ellectronic Series (as an appendix of International DIMATIA web page) covering work of all sites paricipating at DIMATIA activities.

(97-358) H. de Fraysseix, P. Ossona de Mendez: A short proof of a Gauss problem.
(97-359) T. Plewe, A. Pultr, A. Tozzi: Regular monomorphisms of Hausdorff frames.
(97-360) A. Gallucio, M. Loebl: A theory of Pfaffian orientations I: Perfect matchings and permanents.
(97-361) A theory of Pfaffian orientations II: T-joins, edge-cuts, and a duality of enumeration.
(97-362) J. Fiala (ed.): Spring school of combinatorics (Borová Lada, April 1997).
(97-363) P. Pančoška, V. Janota, J. Nešetřil, T. A. Keiderling: Novel matrix descriptor for spectroscopic determination of the connectivity of secondary structure segments in proteins. Analysis of general properties using graph theory.

1998

(98-373) J. Kratochvíl, Zs. Tuza: Rankings of directed graphs.
(98-374) J. Kratochvíl, P. Manuel, M. Miller, A. Proskurowski: Disjoint and fold domination in graphs.
(98-375) J. Kratochvíl, I. Schiermeyer: On the computational complexity of (O, P)-partition problems.
(98-376) J. Nešetřil, A. Raspaud: Colored homomorphisms of colored mixed graphs.
(98-377) M. M. Haldorsson, J. Kratochvíl, J. A. Telle: Independent sets with domination constraints.
(98-378) J. Matoušek: On the discrepancy for boxes and polytopes.
(98-379) J. Matoušek: The exponent of discrepancy is at least 1.0669.
(98-380) A. V. Kostochka, J. Nešetřil: Properties of the Descartes' construction of triangle free graphs with high chromatic number.
(98-381) J. Nešetřil: Structure of the graph homomorphisms II.
(98-382) P. Fischer, J. Matoušek: A lower bound for families of Natarjan dimension d.
(98-383) P. E. Haxell, M. Loebl: On defect sets in bipartite graphs.
(98-384) K. Kuperberg, W. Kuperberg, J. Matoušek, P. Valtr: Almost-tiling the plane by ellipses.
(98-385) W. Hochstattler, M. Laurent, M. Loebl: Cycle bases for lattices of matroids with no Fano dual minor and their one-element extension.
(98-386) J. Fiala (ed.): Fifth Prague combinatorial workshop.
(98-387) H. de Fraysseix, P. Ossona de Mendez: Stretchability of Jordan arc contact systems.
(98-388) J. Ježek, P. Markovic, M. Maroti, R. McKenzie: Equations of tournaments are not finitely based.
(98-389) P. Špičková: Homomorphism duality for rooted oriented graphs.
(98-390) T. Kloks, D. Kratsch, H. Müller: Bandwidth of chain graphs.
(98-391) T. Kloks, D. Kratsch, H. Müller: Finding and counting small graphs efficiently.
(98-392) R. Niedermeier, J. Alber: On multi-dimensional Hilbert indexings.
(98-393) R. Niedermeier, K. Lange: Data independence of read, write and control structures in pram computing.
(98-394) T. Kloks, J. Kratochvíl, D. Kratsch, H. Müller: On vertex ranking, pathwidth and path cover number of $(q, q-4)$-graphs.

(98-395) B. Banaschiewski, A. Pultr: Adjointness aspects of the down-set functor.
(98-396) J. Matoušek: On the signed domination in graphs.
(98-397) A. Galluccio, P. Hell, J. Nešetřil: The complexity of H-colouring of bounded degree graphs.
(98-398) A. Pultr, J. Sichler: A Priestley view on spatialization of frames.
(98-399) H. Broersma, T. Kloks, D, Kratsch, H. Müller: A generalization of AT-free graphs and a generic algorithm for solving triangulation problems.
(98-400) Fifth Czech-Slovak international symposium on combinatorics, graph theory, algorithms and applications (Abstracts).
(98-400a) Fifth Czech-Slovak international symposium on combinatorics, graph theory, algorithms and applications (Program).
(98-401) R. Niedermeier, P. Rossmanith: New upper bounds for MaxSat.
(98-402) H. Broersma, A. Huck, T. Kloks, O. Koppius, D, Kratsch, H. Müller, H. Tuinstra: Degree-preserving forests.
(98-403) R. Niedermeier: Some prospects for efficient fixed parameter algorithm.
(98-404) T. Kloks, R. Tan: Bandwidth of graphs with few $P4$s.
(98-405) J. Nešetřil, A. Raspaud: Antisymmetric flows and strong colourings of oriented graphs.
(98-406) A. Kostochka, J. Nešetřil, P. Smolíková: Coloring and homomorphisms of degenerate and bounded degree graphs.
(98-407) J. Nešetřil, C. Tardif: Duality theorems for finite structures (characterising gaps and good characterisations).
(98-408) P. Hliněný: A note on possible extensions of Negami's conjecture.
(98-409) D. Zeps: Free minor closed classes and the Kuratowski theorem.
(98-410) S. Seiden, J. Sgall, G. Woeginger: Semi-online scheduling with decreasing job sizes.
(98-410) S. Seiden, J. Sgall, G. Woeginger: Semi-online scheduling with decreasing job sizes.
(98-411) R. Niedermeier, P. Rossmanith: Upper bounds for vertex cover further improved.
(98-412) A. Pultr, A. Tozzi: A note on reconstruction of a space from the open set lattice.
(98-413) P. Hliněný (ed.): From Erdös to algorithm, Applications of the "Probabilistic method".

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(99-414) L. Epstein, J. Sgall: Approximation schemes for scheduling on uniformly related and identical parallel machines.
(99-415) J. Nešetřil, C. Tardif: Density.
(99-417) W. Hochstattler, J. Nešetřil: A note on maxflow-mincut and homomorphic equivalence in matroids.
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(99-420) M. Klazar: Bárány and Larman's combinatorial approach to the circle problem.
(99-421) J. Matoušek: Piercing and selection theorems in convexity.
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(99-423) J. Kratochvíl: Choosability and List Colorings.
(99-424) R. Niedermeier, H. Fernau: An efficient exact algorithm for constraint bipartite vertex cover.
(99-425) J. Matoušek: On the linear and hereditary discrepacies.
(99-426) H. J. Prömel: The innaproximability of the maxclique and the setcover problem.
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