

CTW 2012 Conference Program

Tuesday, 29th May 2012

13:00

Opening (PROF. DR. STEFAN PICKL)
Welcome Address (PROF. DR. MARK MINAS, DEAN)

13:10

Keynote (DR. CHRISTIAN MOLL, SIEMENS)

13:20

Welcome Address from the Italian OR Society and EURO 2013
(PROF. RENATO DE LEONE)

13:30

PROF. DR. GUNTHER SCHMIDT: Graphs and Combinatorics, considered relationally
CHAIR: PROF. DR. U. FAIGLE

| Lecture Hall A | Lecture Hall B |
|-------------------|------------------|
| CHAIR: U. WALTHER | CHAIR: P. PAVLIČ |

14:00

G. NICOSIA, A. PACIFICI & U. PFER-SCHY: *Strategies for Single-machine Multi-agent Scheduling Problems*

CH. ENGELS, B. MANTHEY & B. V. R. RAO: *Random Shortest Path Metrics with Applications*

14:30

A. AGNETIS, H. KELLERER, G. NICOSIA & A. PACIFICI: *Scheduling two Chains on Parallel Dedicated Machines*

R. HARREN, K. JANSEN, L. PRÄDEL & R. VAN STEE: *A $(5/3+\epsilon)$ -Approximation Algorithm for 2D Strip Packing*

15:00

A. HÜBSCH & U. WALTHER: *Modeling Contagion Risk and Financial System Stability by Graphs – The Impact of Network Inhomogeneities*

P. PAVLIČ & Ž. JANEZ: *A Constant Time Algorithm for Domination Problems on Polygraphs*

15:30 – 16:00

COFFEE BREAK AT OHG

CHAIR: F. BONOMO

CHAIR: A. LISSER

16:00

D. ZEPE: *On Building 4-Critical Plane and Projective Plane Multiwheels from Odd Wheels*

T. LEE & D. O. THEIS: *Lower Bounds for Sizes of Semidefinite Formulations for some Combinatorial Optimization Problems*

16:30

H. COELHO, L. FARIA, S. GRAVIER & S. KLEIN: *On the Oriented Chromatic Number of Union of Graphs*

S. REISS: *On Semidefinite Programs that Provide Geometric Views on Eigenspaces of the Laplacian of a Graph*

17:00

H. B. M. FILHO, S. DANTAS, R. C. S. MACHADO & C. M. H. DE FIGUEIREDO: *Biclique-Colouring Powers of Paths and Powers of Cycles*

F. CISTERNAS, D. D. DONNE, G. DURÁN, C. POLGATIZ & A. WEINTRAUB: *Integer Programming for Optimizing Salmon Farm Cage Net Use*

17:30

F. BONOMO, M. GIANDOMENICO & F. ROSSI: *On the Cornaz-Jost Transformation to Solve the Graph Coloring Problem*

P. ADASME & A. LISSER: *A Semidefinite Relaxation Approach for Stochastic Bilevel Programming*

18:00

Introduction (PD DR. INA ULRIKE PAUL, STUDIUM+)
Vernissage with Artist PROF. DR. K.-H. HOFMANN
RECEPTION

Wednesday, 30th May 2012

| Lecture Hall A | Lecture Hall B |
|--|---|
| CHAIR: S. WALDHERR | CHAIR: R. SCHRADER |
| <u>08:30</u> | |
| R. SCHEIDWEILER & E. TRIESCH: <i>New Estimations of the Gap-k-coloring Number</i> | V. BUGAENKO, Y. CHERNIAVSKY, T. NAGNIBEDA & R. SHWARTZ: <i>Weighted Coxeter Graphs, Geometric Representation and Generalized Numbers Games</i> |
| <u>09:00</u> | |
| K. KARAM & C. N. CAMPOS: <i>Fulkerson's Conjecture and Loupekine's Snarks</i> | M. FELISIAK & D. SIMSON: <i>On Coxeter Spectral Study of Edge Bipartite Graphs, Matrix Morsifications and Mesh Root Systems for Dynkin Diagrams</i> |
| <u>09:30</u> | |
| S. WALDHERR: <i>A Generalized Graph Coloring Approach to Periodic Scheduling</i> | O. SCHAUDT, R. SCHRADER & V. WEIL: <i>On the Separability of Graphs</i> |
| <u>10:00 – 10:30</u> COFFEE BREAK AT OHG | |
| CHAIR: R. M. YÜZSEVER | CHAIR: V. WEIL |
| <u>10:30</u> | |
| F. COLOMBO, R. CORDONE & M. TRUBIAN: <i>Upper and Lower Bounds for the Homogeneous Areas Problem</i> | M. R. CERIOLI & L. PIERZAN: <i>On b-continuity of Distance-Hereditary Graphs</i> |
| <u>11:00</u> | |
| A. KÜGEL: <i>Average Case Complexity of Branch-and-Bound Algorithms on Random b-ary Trees</i> | F. N. ABU-KHZAM & M. A. LANGSTON: <i>Almost Exact Graph 3-Coloring in $O(1.277^n)$ Time</i> |
| <u>11:30</u> | |
| R. M. YÜZSEVER, T. EKIM & N. ARAS: <i>A Branch-and-Price Algorithm for Split-Coloring Problem</i> | O. SCHAUDT & V. WEIL: <i>Graphs in Which the Difference of the Maximum Clique Number and the Maximum Degree Is Bounded by a Constant</i> |
| <u>12:00 – 13:00</u> LUNCH AT OHG | |

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| CHAIR: A. LISSER | CHAIR: L. LIBERTI |
| <u>13:00</u> | |
| S. AHMAD & I. ANWAR: <i>On f and h Triangles of a Simplicial Complex</i> | S. BOSIO, J.-PH. W. KAPPMEIER, J. MATUSCHKE, B. PEIS & M. SKUTELLA: <i>Flows over Time with Negative Transit Times and Arc Release Dates</i> |
| <u>13:30</u> | |
| V. CAMPOS, R. SAMPAIO, A. SILVA, & J. SZWARCFITER: <i>Graphs with few P_4's under the Convexity of Paths of Order Three</i> | L. LIBERTI: <i>Modelling Rank Constraints in Mathematical Programming</i> |
| <u>14:00</u> | |
| J. CHENG & A. LISSER: <i>Maximum Probability in Stochastic Programming</i> | H. HIJAZI & L. LIBERTI: <i>Invex Formulations of Unbounded Disjunctions</i> |
| <u>14:30 – 15:00</u> COFFEE BREAK AT OHG | |
| CHAIR: L. TACCARI | CHAIR: R. KASCHEK |
| <u>15:00</u> | |
| V. BÍNA & J. PŘIBIL: <i>An Open Problem of Star-like Graph Enumeration</i> | Y. H. CHEN: <i>Approximation Hardness of the Mixed Dominating Set</i> |
| <u>15:30</u> | |
| L. SAHA & P. PANIGRAHI: <i>Improved Lower Bound for Radio Number of an Arbitrary Graph</i> | A. N. CERANOĞLU & E. DUMAN: <i>VRP12 – A new Variant of the Vehicle Routing Problem</i> |
| <u>16:00</u> | |
| G. PANDA & A. BHURJEE: <i>Efficient Solution of Interval Valued Quadratic Programming Problem</i> | C. A. PHILLIPS, J. J. JAY, E. J. BAKER, E. J. CHESLER & M. A. LANGSTON: <i>On Bipartite Graph Decomposition in the Presence of Noise, with Applications to Biological Data Clustering</i> |
| <u>16:30</u> | |
| E. AMALDI, ST. CONIGLIO & L. TACCARI: <i>k-Piecewise Affine Model Fitting: Heuristics Based on Multiway Linear Classification</i> | R. KASCHEK: <i>Towards Reconstructing Graphs With End Vertices</i> |
| <u>17:30</u> Bus Transfer to Social Event | |

Thursday, 31st May 2012

| Lecture Hall A | Lecture Hall B |
|--|---|
| CHAIR: R. DE LEONE | |
| CHAIR: P. BRUCKER | |
| <u>08:30</u> | |
| D. ELBAZ, M. HIFI & T. SAADI: <i>2D Cutting Stock Problems Peer-to-Peer Parallel Solving</i> | P. BRUCKER: <i>A Car Rental Problem at the German Bundeswehr</i> |
| <u>09:00</u> | |
| M. PELLEGRINI, R. DE LEONE & P. MAPONI: <i>Adaptive Sampling for Embedded Software Systems using SVM: Application to Water Level Sensors</i> | A. BRIEDEN, P. GRITZMANN & M. ÖLLINGER: <i>Optimal Robustness of Supply Chains</i> |
| <u>09:30</u> | |
| S. DE COSMIS & R. DE LEONE: <i>Support Vector Machines for Robust Regression</i> | O. HUDRY: <i>Majority Graphs of Profiles of Equivalence Relations and Complexity of Régnier's Problem</i> |
| <u>10:00 – 10:30</u> COFFEE BREAK AT OHG | |
| CHAIR: D. LOZOVANU | |
| CHAIR: M. BRUGLIERI | |
| <u>10:30</u> | |
| B. DOERR, R. SPÖHEL, H. THOMAS & C. WINZEN: <i>Playing Mastermind with Many Colors</i> | F. RODA & A. COSTA: <i>Bipartite Modularity Based Clustering for Collaborative Filtering</i> |
| <u>11:00</u> | |
| Y. FENG & TH. S. H. DRIESSEN: <i>A Potential Approach to Efficient, Multiplicative and Symmetric Values of TU Games</i> | N. CHIKHI & M. ABBAS: <i>Minimizing the Makespan in a Robotic Cell Scheduling Problem</i> |
| <u>11:30</u> | |
| D. LOZOVANU & S. PICKL: <i>Nash Equilibria Conditions for Stochastic Cyclic Games on Networks</i> | M. BRUGLIERI, A. COLORNI, T. DAVIDOVIĆ & S. ROKSANDIĆ: <i>A Matheuristic Approach for the University Carpooling Problem</i> |
| <u>12:00 – 13:00</u> LUNCH AT OHG | |

CHAIR: J.-PH. W. KAPPMEIER

CHAIR: A. BLEY

13:00

G. DE ITA LUNA, F. ZACARIAS & R. MARCIAL-ROMERO: *An Approximate Algorithm for the Chromatic Number of a Graph*

E. CAMBY, J. CARDINAL, S. FIORINI & O. SCHAUDT: *The Price of Connectivity for Vertex Cover: Perfect, Near-Perfect and Critical Graphs*

13:30

A. BRIEDEN, P. GRITZMANN & B. REINBOLD: *A Posteriori Vehicle Fleet Optimization and Scenario Evaluation*

G. BRINKMANN, K. COOLSAET, J. GOEDGEBEUR & H. MÉLOT: *A Database of Interesting Graphs: The House of Graphs*

14:00

G. BRINKMANN, S. DANTAS, C. M. H. DE FIGUEIREDO, M. PREISSMANN & D. SASAKI: *Snarks with Total Chromatic Number 5*

N. S. NARAYANASWAMY & G. RAMAKRISHNA: *Characterization of Minimum Cycle Basis in Weighted Partial 2-trees*

14:30

E. DUMAN & A. F. ALKAYA: *An Application of the Sequence Dependent TSP in PCB Assembly*

M. KOVŠE: *Expansion Procedures and Buneman Hypergraphs*

15:00

H. B. MEROUANE, M. HADDAD, M. CHELLALI & H. KHEDDOUCI: *Dominated Coloring of Graphs*

15:30

J.-PH. W. KAPPMEIER, J. MATUSCHKE & B. PEIS: *Abstract Flows over Time*

A. BLEY: *An Update on the Complexity of Edge-disjoint Length-equal-3 Paths Problems*

16:00

CLOSING SESSION

PROF. DR. STEFAN PICKL

PROF. DR. GERHARD-WILHELM WEBER (EURO 2012)

PROF. DR. LEO LIBERTI (SPECIAL ISSUE OF CTW 2012)

PROF. DR. ULRICH FAIGLE
