Program

Tuesday, April 23rd, 2013

Room “Los Cabos”

9:00AM-9:50AM, Plenary

Generalizing convexity via linear cross-sections
by Ferran Hurtado.

9:50AM-10:05AM

Break

Room “Los Cabos”

Session: Graph Theory I
Chair: Miguel Pizaña

10:05AM-10:30AM

More on connector families
by Gérard Cohen, Emanuela Fachini, János Körner.

10:30AM-10:55AM

Special asteroidal quadruple on directed path graph non rooted path graph
by Marisa Gutierrez, Silva B. Tondato.

Room “Riviera Maya”

Session: Algorithms I
Chair: Gelasio Salazar

The generalized split probe problem
by Simone Dantas, Luerbio Faria, Celina M. H. de Figueiredo, Rafael B. Teixeira.

A New Formulation and Computational Results for the Simple Cycle Problem
by Abilio Lucena, Alexandre Salles da Cunha, Luidi Simonetti.
Room “Los Cabos”

10:55AM-11:10AM  Break

11:10AM-11:35AM  Obstructions to chordal circular-arc graphs of small independence number
by Mathew Francis, Pavol Hell, Juraj Stacho.

11:35AM-12:00PM  \{k\}-domination for chordal graphs and related graph classes
by Gabriela Argiroffo, Valeria Leoni, Pablo Torres.

12:00PM-12:25PM  Introducing subclasses of basic chordal graphs
by Pablo De Caria, Marisa Gutierrez.

Room “Riviera Maya”

Session: Codes  Chair: Annegret Wagler

11:10AM-11:35AM  A ‘Hot Potato’ Gray Code for Permutations
by Xi Sisi Shen, Aaron Williams.

11:35AM-12:00PM  Polyhedra associated with identifying codes

12:00PM-12:25PM  Greedy Pancake Flipping
by Aaron Williams, Joe Sawada.

12:25PM-12:40PM  Break

Room “Los Cabos”

12:40PM-1:30PM, Plenary  Chair: Annegret Wagler

A survey on the algorithms for the minimum weighted clique cover problem in claw-free perfect graphs
by Flavia Bonomo.
Room “Los Cabos”

3:00PM-3:50PM, Plenary
The Practice of Graph Isomorphism
by Brendan D. McKay.

3:50PM-4:10PM
______________ Break ______________

Room “Los Cabos”
Session: Matchings in Graphs
Chair: Rita Zuazua

4:10PM-4:35PM
Matchings in Graphs of Odd Regularity and Girth
by Vitor Costa, Simone Dantas, Dieter Rautenbach.

Algorithms to Approximately Count and Sample Conforming Colorings of Graphs
by Sarah Miracle, Dana Randall.

4:35PM-5:00PM
Small degree vertices in minimal bricks
by Henning Bruhn, Maya Stein.

An exact DSatur-based algorithm for the Equitable Coloring Problem
by Isabel Méndez-Díaz, Graciela Nasini, Daniel Severín.

Room “Los Cabos”
17:00-17:50
______________ Poster Session ______________
Wednesday, April 24th, 2013

Room “Los Cabos”

9:00AM-9:50AM, Plenary

The crossing number of the complete graph
by Silvia Fernández-Merchant.

Chair: Fábio Protti

9:50AM-10:05AM Break

Room “Los Cabos”

Session: Intersection Graphs
Chair: Fábio Protti

10:05AM-10:30AM

On minimal non $[h,2,1]$ graphs
by Liliana Alcón, Marisa Gutierrez,
María Pía Mazzoleni.

Room “Riviera Maya”

Session: Colorings and Algorithms
Chair: Mario Valencia-Pabon

10:05AM-10:30AM

On $k$-critical $P_5$-free graphs
by Chinh T. Hoang, Brian Moore, Daniel
Recoskie, Joe Sawada.

Room “Los Cabos”

10:30AM-10:55AM

Edge Intersection Graphs of $L$-Shaped Paths
in Grids
by Kathie Cameron, Steven Chaplick, Chinh
T. Hoang.

Room “Riviera Maya”

Session: Algorithms II
Chair: Luerbio Faria

10:30AM-10:55AM

Models and Algorithms for Carsharing Systems
and Related Problems
by Sven O. Krumke, Alain Quilliot,
Annegret K. Wagler, Jan-Thierry Wegener.

10:55AM-11:10AM Break

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<tr>
<th>Room “Los Cabos”</th>
<th>Room “Riviera Maya”</th>
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<tr>
<td>Session: Perfect Graphs</td>
<td>Session: Algorithms II</td>
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<tr>
<td>Chair: Rafael Villarroel</td>
<td>Chair: Luerbio Faria</td>
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11:10AM-11:35AM
Searching for perfection on hypergraphs
d by Deborah Oliveros-Bruniff, Natalia Garcia-Colin, Amanda Montejano, Luis Montejano.

Linear time computation of the maximal sums of insertions into all positions of a sequence
d by Pablo M. S. Farias, Ricardo C. Corréa.

11:35AM-12:00PM
The $\omega_\psi$-perfection of graphs

Approximating connected facility location with buy-at-bulk edge costs via random sampling
d by Andreas Bley, Mohsen Rezapour.

Room “Los Cabos”

12:00PM-12:50PM, Plenary
Typical structure of graph homomorphisms
d by Wojciech Samotij.

12:50PM-2:00PM
Lunch
Thursday, April 25th, 2013

Room “Los Cabos”

9:00AM-9:50AM, Plenary

Flip Distances in Triangulations
by Oswin Aichholzer.

9:50AM-10:05AM Break

9:00AM-10:30AM, Session: Convexity in Graphs
Chair: Mitre Costa Dourado

On Minimal and Minimum Hull Sets
by Rommel Barbosa, Dieter Rautenbach, Vinícius Fernandes dos Santos, Jayme L. Szwarcfiter.

10:05AM-10:55AM

Polyhedral studies on the convex recoloring problem
by Manoel Campêlo, Karla R. Lima Phablo F. S. Moura, Yoshiko Wakabayashi.

10:55AM-11:10AM Break

Room “Riviera Maya”

Session: Routing Problems
Chair: Amanda Montejano

A Branch-and-price Algorithm for the Multi-Vehicle Covering Tour Problem
by Ramon Lopes, Vitor A. A. Souza, Alexandre Salles da Cunha.

On the Monotonicity of Process Number
by Nicolas Nisse, Ronan Pardo Soares.

10:55AM-11:10AM Break
### Room “Los Cabos”

Session: Convexity in Graphs  
Chair: **Mitre Costa Dourado**

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<tr>
<td>11:00AM-11:35AM</td>
<td>Polynomial time algorithm for the Radon number of grids in the geodetic convexity</td>
<td>Mitre Costa Dourado, Dieter Rauenthal, Vinícius Gusmão Pereira de Sá, Jayme Luiz Szwarcfiter</td>
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<tr>
<td>11:35AM-12:00PM</td>
<td>Hull number: $P_5$-free graphs and reduction rules</td>
<td>J. Araujo, G. Morel, L. Sampaio, R. Soares V. Weber</td>
</tr>
<tr>
<td>12:00PM-12:25PM</td>
<td>The convexity of induced paths of order three</td>
<td>R. T. Araújo, R. M. Sampaio, J. L. Szwarcfiter</td>
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#### Break

12:25PM-12:40PM

### Room “Riviera Maya”

Session: Combinatorial Geometry I  
Chair: **Bernardo Ábrego**

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<td>11:00AM-11:35AM</td>
<td>Almost Empty Monochromatic Triangles in Planar Point Sets</td>
<td>Deepan Basu, Bhaswar B. Bhattacharya, Sandip Das</td>
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<tr>
<td>11:35AM-12:00PM</td>
<td>Empty triangles in complete topological graphs</td>
<td>Andres J. Ruiz-Vargas</td>
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<tr>
<td>12:00PM-12:25PM</td>
<td>Balanced 6-holes in linearly separable bichromatic point sets</td>
<td>Oswin Aichholzer, Jorge Urrutia, Birgit Vogtenhuber</td>
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#### Break

12:25PM-12:40PM

### Room “Los Cabos”

12:40PM-1:30PM, Plenary  
Chair: **Bernardo Ábrego**

Art Gallery Problems, Old and New  
by Jorge Urrutia.

### Room “Los Cabos”

3:00PM-3:50PM, Plenary  
Chair: **Deborah Oliveros-Braniff**

Independent sets in hypergraphs  
by József Balogh.
3:50PM-4:10PM  

Room “Los Cabos”  

Session: Graph Recognition  
Chair: Deborah Oliveira-Braniff  

Room “Riviera Maya”  

Session: Polytopes  
Chair: Guillermo Durán  

4:10PM-4:35PM  

Graphs with Dilworth Number Two are Pair-wise Compatibility Graphs  
by T. Calamoneri, R. Petreschi.  

A note on the disjunctive index of joined a-perfect graphs  
by S. Bianchi, M. Escalante, M. S. Montelar.  

4:35PM-5:00PM  

Snarks and Flow-Critical Graphs  
by Cândida Nunes da Silva, Lissa Pesci, Cláudio L. Lucchesi.  

On the representatives k-fold coloring polytope  
by Manoel Campêlo, Phablo F. S. Moura, Marcio C. Santos.  

Room “Los Cabos”  

Session: Pseudo Random Graphs  
Chair: Deborah Oliveira-Braniff  

Room “Riviera Maya”  

Session: Polytopes  
Chair: Guillermo Durán  

5:00PM-5:25PM  

Extremal results for odd cycles in sparse pseudo-random graphs  
by Elad Aigner-Horev, Hiệp Hàn, Mathias Schacht.  

The 2-dominating set polytope of cycles and related graph classes  
by G. Argiroffo, M. Escalante, M. E. Ugarte.  

5:25PM-5:50PM  

An approximate blow-up lemma for sparse pseudorandom graphs  
by Peter Allen, Julia Böttcher, Hiệp Hàn, Yoshiharu Kohayakawa.  

Lovász-Schrijver SDP-operator and a superclass of near-perfect graphs  
by S. Bianchi, M. Escalante, G. Nasini, L. Tunçel.
Friday, April 26th, 2013

Room “Los Cabos”

9:00AM-9:50AM, Plenary

Selfish and Dynamic 2D Bin Packing
by Yoshiko Wakabayashi.

Room “Los Cabos”

9:50AM-10:05AM  Break

Room “Los Cabos”

Session: Transversals in Graphs
Chair: Sulamita Klein

10:05AM-10:30AM  Clique cycle transversals in distance-hereditary graphs
by Simone Esposito, Loana T. Nogueira, Fábio Protti.

10:30AM-10:55AM  The transversal numbers of linear systems with given 2-packing numbers
by A. Vázquez-Ávila, G. Araujo-Pardo, A. Montejano, L. Montejano.

Room “Riviera Maya”

Session: Topological Methods
Chair: Paulina Figueroa

Small degeneracy of antiferromagnetic triangulations
by Andrea Jiménez.

10:55AM-11:10AM  Break

Geometric variants of Hall’s Theorem through Sperner’s Lemma
by Leonardo Martínez, Luis Montejano.
Room “Los Cabos”

Session: Graph Theory II  
Chair: Gabriela Araujo-Pardo

11:10AM-11:35AM  
Too many triangles  
by Boris Albar, Daniel Gonçalves.

11:35AM-12:00PM  
Bipartite Graphs, Hamiltonicity and $Z$ graphs  
by M. Sohel Rahman, M. Kaykobad, Md. Tanvir Kaykobad.

12:00PM-12:25PM  
Fulkerson's Conjecture and Loupekine snarks  
by Kaio Karum, C. N. Campos.

12:25PM-12:40PM  
_________________________ Break __________________________

Room “Riviera Maya”

Session: Combinatorial Geometry II  
Chair: José Zamora

11:10AM-11:35AM  
Diffuse Reflections in Simple Polygons  
by Gill Barequet, Sarah M. Cannon, Eli Fox-Epstein, Benjamin Hescott, Diane L. Souvaine, Csaba D. Tóth, Andrew Winslow.

11:35AM-12:00PM  
On Schur’s conjecture  
by Filip Morić, János Pach.

12:00PM-12:25PM  
A new infinite family of minimal non-orientable matroids of rank 3 with $3n$ elements  
by Hidefumi Hiraishi, Sonoko Moriyama.

12:25PM-12:40PM  
_________________________ Break __________________________

Room “Los Cabos”

12:40PM-1:30PM, Plenary  
Chair: José Zamora

A Non-expensive Homological Helly Theorem  
by Luis Montejano.

1:30PM-3:00PM  
_________________________ Lunch __________________________
### Room “Los Cabos”

**Session:** Graph Colorings  
**Chair:** Graciela Nasini

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<td>3:00PM-3:25PM</td>
<td>$b$-chromatic index of graphs</td>
<td>Carlos Vinícius G.C. Lima, Nicolás A. Martins, Leonardo Sampaio, Marcio C. Santos, Ana Silva.</td>
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<td>3:25PM-3:50PM</td>
<td>Null and non–rainbow colorings of maximal planar graphs</td>
<td>Amanda Montejano, Jorge L. Arocha.</td>
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<td>3:50PM-4:10PM</td>
<td>Recoloring bounded treewidth graphs</td>
<td>Marthe Bonamy, Nicolas Bousquet.</td>
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<td>4:10PM-4:35PM</td>
<td>On the packing chromatic number of hypercubes</td>
<td>Pablo Torres, Mario Valencia-Pabon.</td>
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<td>4:35PM-5:00PM</td>
<td>Oriented coloring in planar, bipartite, bounded degree 3 acyclic oriented graphs</td>
<td>Hebert Coelho, Luerbio Faria, Sylvain Gravier, Sulamita Klein.</td>
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### Room “Riviera Maya”

**Session:** Combinatorial Optimization  
**Chair:** Pablo Rey

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<td>Robust Optimization for the Connected Facility Location Problem</td>
<td>M. Gisela Bardossy, S. Raghavan.</td>
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<td>3:25PM-3:50PM</td>
<td>Arc-based integer programming formulations for three variants of proportional symbol maps</td>
<td>Rafael G. Cano, Cid C. de Souza, Pedro J. de Rezende, Tallys Yunes.</td>
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<td>3:50PM-4:10PM</td>
<td>Break</td>
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<td>4:10PM-4:35PM</td>
<td>Pruned discrete random samples: extended abstract</td>
<td>Rudolf Grübel, Paweł Hitczenko.</td>
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<td>4:35PM-5:00PM</td>
<td>The Wide Partition Conjecture and the Atom Problem in Discrete Tomography</td>
<td>Christoph Dürr, Flavio Guíñez.</td>
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<td>5:00PM-5:25PM</td>
<td>On the first Chvátal closure of the set covering polyhedron related to circulant matrices</td>
<td>Paola B. Tolomei, Luis M. Torres.</td>
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