WORKSHOP PROGRAM

Combinatorial geometries: matroids, oriented matroids and applications

Géométries combinatoires : matroïdes, matroïdes orientés et applications



Ringel's arrangement

Marseille - Luminy, 2-6 April, 2013

Dedicated to the memory of Michel Las Vergnas

Organizing committee

Emeric GIOAN Jorge RAMIREZ ALFONSIN Scientific committee

Alexandre BOROVIK Raul CORDOVIL Michel LAS VERGNAS (R.I.P.) Jim LAWRENCE András RECSKI





Schedule

Tuesday 2

| 8h30 | REGISTRATION | |
|---------|------------------------|--|
| 9h | Jim LAWRENCE | Radon Catalogs, the Odd-Even Invariant, and Valua- tions |
| 9h45 | Hans-Jürgen BANDELT | Geometry of lopsided sets |
| 10h30 | BREAK | |
| 11h | Kolja KNAUER | Between partial cubes and oriented matroids |
| 11h45 | Matjaž KOVŠE | Tutte polynomials and topological representations of partial cubes |
| 12h30 | LUNCH | |
| 14h30 | Richard POLLACK | Double Permutation Sequences and Arrangements of Planar Families of Convex Sets with Applications |
| 15h15 | Antoine DEZA | A combinatorial approach to colourful simplicial depth |
| 16h | BREAK | |
| 16h30 | Federico ARDILA | Matroids in tropical geometry |
| 17h15 | Felipe RINCON | Tropical linear spaces and valuated matroids |
| 19h30 | DINNER | |
| Wednesd | ay 3 | |
| 9h | András RECSKI | Tree decomposition, tree orientation and rigid frame- works |
| 9h45 | Ricardo STRAUSZ | Applying the probabilistic method to Separoids theory |
| 10h30 | BREAK | |
| 11h | Csongor CSEHI | The graphicity of the sum of graphic matroids |
| 11h45 | Viet Hang NGUYEN | Inductive construction and decomposition of graded sparse graphs |
| 12h30 | LUNCH | |
| 14h30 | Jürgen BOKOWSKI | Oriented Matroids and Configurations of Points and Lines |
| 15h15 | Carsten LANGE | Counting invariants for realizations of associahedra |
| 16h | BREAK | |
| 16h30 | Hidefumi HIRAISHI | Minimal non-orientable matroids of rank 3 |
| 17h15 | Hiroyuki MIYATA | Complete Enumeration of Small Realizable Oriented Matroids |
| 19h30 | DINNER | |
| 20h30 | Komei FUKUDA | My personal memories of Michel and his work |
| 20h45 | Emeric GIOAN | Michel's slides |
| 21h | Jorge RAMIREZ ALFONSIN | Michel's conjectures |
| 21h15 | WINE & CHEESE | |

Thursday 4

| 9h | Louis BILLERA | Unbalanced collections, weak maps and a problem in quantum physics |
|-------|------------------|---|
| 9h45 | Michel POCCHIOLA | Arrangements of double pseudolines living in non ori- entable surfaces |
| 10h30 | BREAK | |
| 11h | Andreas HOLMSEN | Realization spaces and Erdős-Szekeres theorems for convex sets |
| 11h45 | Arnau PADROL | From Ehrhart theory to the discrepancy of oriented ma- troids |
| 12h30 | LUNCH | |
| 19h30 | DINNER | |
| | | |

Friday 5

| 9h | Joseph KUNG | The Tutte polynomial as a resultant force |
|-------|-------------------|--|
| 9h45 | Caroline KLIVANS | Scheduling polynomials |
| 10h30 | BREAK | |
| 11h | Luca MOCI | Matroids over a ring |
| 11h45 | Nikolai MNEV | Local combinatorial formula for the Chern class of combinatorial S^1 bundles |
| 12h30 | LUNCH | |
| 14h30 | Emanuele DELUCCHI | Foundations for a theory of phased matroids |
| 15h15 | Thomas ZASLAVSKY | Phased Matroids from Gain Graphs |
| 16h | BREAK | |
| 16h30 | Laura ANDERSON | Realization spaces of phased matroids and the phased matroid Grassmannian |
| 17h15 | Hiroshi HIRAI | Discrete Convexity and Polynomial Solvability in Min- imum 0-extension Problems |
| 19h30 | DINNER | |

Saturday 6

| 9h | Zoltán SZIGETI | Packing of arborescences with matroid constraints |
|-------|------------------|--|
| 9h45 | Jérémie CHALOPIN | A topological characterization of basis graphs of matroids |
| 10h30 | BREAK | |
| 11h | Kenjiro TAKAZAWA | Shortest Bibranchings and Valuated Matroid Intersec- tion |
| 12h30 | LUNCH | |