

# Workshop on Geometric Computing – Program

Heraklion, January 21–25, 2013

## Monday, January 21st, 2013

### *Morning Session*

- 9:20 – 9:30 Introduction & Welcome  
*Menelaos Karavelas*
- 9:30 – 9:40 Voronoi diagrams (short introduction)  
*Monique Teillaud*
- 9:40 – 9:50 Algebraic tools (short introduction)  
*Elias Tsigaridas*
- 9:50 – 10:00 Resolving degeneracies (short introduction)  
*Olivier Devillers*
- 10:00 – 10:30 *COFFEE BREAK*
- 10:30 – 11:15 On higher order (and farthest) line segment Voronoi diagrams  
*Evanthia Papadopoulou*
- 11:15 – 12:00 Insertions and Deletions in Delaunay Triangulations using Guided Point Location  
*Kevin Buchin*
- 12:00 – 13:30 *LUNCH*

### *Afternoon Session*

- 13:30 – 14:15 Anisotropic Voronoi diagrams and Meshes  
*Mariette Yvinec*
- 14:15 – 15:30 Voronoi Diagrams of Lines in Space  
*Michael Hemmer*
- 15:30 – 16:00 *COFFEE BREAK*
- 16:00 – 16:45 Delaunay Triangulations of Point Sets in Closed Euclidean  $d$ -orbifolds  
*Monique Teillaud*
- 16:45 – 18:00 *Open Problems session on Voronoi diagrams*

---

## Tuesday, January 22nd, 2013

### *Morning Session*

- 9:15 – 10:00 Solving bivariate systems: Rational Univariate Representations and complexity analysis  
*Sylvain Lazard*
- 10:00 – 10:45 Geometric and Algebraic Computations with Rational Curves  
*Elias Tsigaridas*
- 10:45 – 11:15 *COFFEE BREAK*
- 11:15 – 11:35 Rational parametrizations of bivariate systems and applications  
*Yacine Bouzidi*
- 11:35 – 11:55 Oracle-based algorithms for high-dimensional polytopes  
*Vissarion Fisikopoulos*
- 11:55 – 12:15 Efficient construction of the Hausdorff Voronoi diagram  
*Panagiotis Cheilaris*
- 12:15 – 13:45 *LUNCH*

### *Afternoon Session*

- 13:45 – 14:30 *Open Problems session on Algebraic tools*
- 14:30 – 16:00 *Discussion session(s)*
- 16:00 – 16:30 *COFFEE BREAK*
- 16:30 – 18:00 *Discussion session(s)*

## Wednesday, January 23rd, 2013

### *Morning Session*

- 9:30 – 10:15 Qualitative Symbolic Perturbations  
*Olivier Devillers*
- 10:15 – 11:00 Perturbations in Geometric Computing  
*Raimund Seidel*
- 11:00 – 11:30 COFFEE BREAK
- 11:30 – 12:15 Exact, rounded, or perturbed: How would you like your arrangements?  
*Dan Halperin*
- 12:15 – 13:45 LUNCH

### *Afternoon Session*

- 13:45 – 14:30 Open Problems session on Perturbations
- 14:30 – 16:00 Discussion session(s)
- 16:00 – 16:30 COFFEE BREAK
- 16:30 – 18:00 Discussion session(s)
- 20:00 – 22:00 WORKSHOP DINNER – Μεράστρι (Merastri), Chrysostomou 17, Heraklion, tel. (+30) 2810 221910
- 

## Thursday, January 24th, 2013

### *Morning Session*

- 9:15 – 9:35 Numeric symbolic tools for the topology of algebraic curves with simple singularities  
*Marc Pouget*
- 9:35 – 9:55 Numeric and symbolic tools for the topology of algebraic curves with simple singularities  
*Guillaume Moroz*
- 9:55 – 10:15 Counting regular triangulations  
*Victor Alvarez*
- 10:15 – 11:00 Discussion session(s)
- 11:00 – 11:30 COFFEE BREAK
- 11:30 – 13:00 Discussion session(s)
- 13:00 – 14:30 LUNCH BREAK
- 14:30 – 16:00 Discussion session(s)
- 16:00 – 16:30 COFFEE BREAK
- 16:30 – 18:00 Discussion session(s)
- 

## Friday, January 25th, 2013

### *Morning Session*

- 9:15 – 11:00 Wrap-up session
- 11:00 – 11:30 COFFEE BREAK
- 11:30 – 13:00 Wrap-up session