

EuroCG 2017: Conference Program

Tuesday, April 4	
18.00–20.00	Welcome reception and registration (Niagara Atrium)

Wednesday, April 5	
08.00–08.45	Registration
08.45–09.00	Opening remarks (NI:C0E11)
09.00–10.00	Invited talk (NI:C0E11) <i>Chair: Sándor Fekete</i> ROLF KLEIN. Abstract Voronoi Diagrams Revisited
10.00–10.30	Fast forward session (NI:C0E11)
10.30–11.00	Coffee break
	Session 1A <i>Robotics / Path planning</i> (NI:C0E11) <i>Chair: Paweł Żyliński</i>
	Session 1B <i>Games, Frechet</i> (NI:A0606) <i>Chair: Gill Barequet</i>
11.00–11.15	MIKKEL ABRAHAMSEN, JACOB HOLM, EVA ROTENBERG, CHRISTIAN WULFF-NILSEN. Best Laid Plans of Lions and Men
11.15–11.30	CHRISTIAN SCHEFFER, SÁNDOR FEKETE, PHILLIP KELDENICH, ERIK DEMAINE, HENK MEIJER. Parallel Motion Planning: Coordinating a Swarm of Labeled Robots with Bounded Stretch
11.30–11.45	ROBERT GMYR, IRINA KOSTITSYNA, FABIAN KUHN, CHRISTIAN SCHEIDELER, THIM STROTHMANN. Forming Tile Shapes with a Single Robot
11.45–12.00	PROSENJIT BOSE, IRINA KOSTITSYNA, STEFAN LANGERMAN. Self-approaching paths in simple polygons
12.00–12.15	MATIAS KORMAN, WOLFGANG MULZER, ANDRÉ VAN RENSSSEN, MARCEL ROELOFFZEN, PAUL SEIFERTH, YANNIK STEIN, BIRGIT VOGTENHUBER, MAX WILLERT. Routing in Simple Polygons
12.15–12.30	YAGO DIEZ, MATIAS KORMAN, ANDRÉ VAN RENSSSEN, MARCEL ROELOFFZEN, FRANK STAALS. Kinetic All-Pairs Shortest Path in a Simple Polygon
12.30–13.30	Lunch
	Session 2A <i>Robotics / Path planning</i> (NI:C0E11) <i>Chair: Matias Korman</i>
	Session 2B <i>Empty polygons</i> (NI:A0606) <i>Chair: Bettina Speckmann</i>
13.30–13.45	BENGT J NILSSON, ELI PACKER. Weighted Discrete Surveillance Tours in Simple Polygons
13.45–14.00	SÁNDOR FEKETE, CHRISTIAN RIECK, CHRISTIAN SCHEFFER. On the Traveling Salesman Problem in Solid Grid Graphs
14.00–14.15	SÁNDOR FEKETE, DOMINIK KRUPKE. Covering Tours with Turn Cost: Variants, Approximation and Practical Solution
14.15–14.30	MARTIN HELD, STEFAN DE LORENZO. On the Generation of Spiral Paths Within Planar Shapes
14.30–14.45	SERGEY BEREG, LUIS EVARISTO CARABALLO DE LA CRUZ, JOSÉ MIGUEL DÍAZ BÁÑEZ, MARIO A LOPEZ. Computing the k -resilience of a Synchronized Multi-Robot System
14.45–15.00	Fast forward session (NI:C0E11)
15.00–15.30	Coffee break
	Session 3A <i>Textbook</i> (NI:C0E11) <i>Chair: Wolfgang Mulzer</i>
	Session 3B <i>Just algs, Imprecise</i> (NI:A0606) <i>Chair: Rolf Klein</i>
15.30–15.45	MIKKEL ABRAHAMSEN, KEVIN BUCHIN, MARK DE BERG, MEHRAN MEHR, ALI D MEHRABI. Minimum Perimeter-Sum Partitions in the Plane
15.45–16.00	JOHN IACONO, ELENA KHRAMTCOVA, STEFAN LANGERMAN. Searching edges in the overlap of two plane graphs
16.00–16.15	MARTIN HELD, PETER PALFRADER. Straight Skeletons of Monotone Surfaces in Three-Space
16.15–16.30	HELMUT ALT, NADJA SCHARF. Polynomial Time Approximation Schemes for Circle Packing Problems
16.30–16.45	LUIS BARBA, JEAN CARDINAL, JOHN IACONO, STEFAN LANGERMAN, AURÉLIEN OOMS, NOAM SOLOMON. Subquadratic Algorithms for Algebraic Generalizations of 3SUM
16.45–17.45	Business meeting (NI:C0E11)

Thursday, April 6	
08.00–09.00	Registration
09.00–10.00	Invited talk (NI:C0E11) <i>Chair: Christiane Schmidt</i> BETTINA SPECKMANN. Tracking groups and unraveling ensembles: geometry for moving objects
10.00–10.15	Fast forward session (NI:C0E11)
10.15–10.45	Coffee break
	Session 4A <i>Graph drawing, Labeling</i> (NI:C0E11) <i>Chair: Kevin Buchin</i>
	Session 4B <i>Practice, Unclassified</i> (NI:A0606) <i>Chair: Maike Buchin</i>
10.45–11.00	FRANZ BRANDENBURG. Compact 1-Bend RAC Drawings of 1-Planar Graphs
	MAN KWUN CHIU, MATIAS KORMAN. High Dimensional Consistent Digital Segments
11.00–11.15	IRINA KOSTITSYNA, BETTINA SPECKMANN, KEVIN VERBEEK. Non-crossing drawings of multiple geometric Steiner arborescences
	GEORGIOS SAMARAS, IOANNIS PSARROS, GEORGIA AVARIKIOTI, IOANNIS EMIRIS. Practical linear-space Approximate Near Neighbors in high dimension
11.15–11.30	LUKAS BARTH, BENJAMIN NIEDERMANN, IGNAZ RUTTER, MATTHIAS WOLF. Towards a Topology-Shape-Metrics Framework for Ortho-Radial Drawings
	JONAS CLEVE, WOLFGANG MULZER. An Experimental Study of Algorithms for Geodesic Shortest Paths in the Constant Workspace Model
11.30–11.45	TAMARA MCHEDLIDZE, MARCEL RADERMACHER, IGNAZ RUTTER. Aligned Drawings of Planar Graphs
	JOHAN VAN DE KOPPEL, MAARTEN LÖFFLER, TIM OPHELDERS. Computing Wave Impact in Self-Organised Mussel Beds
11.45–12.00	PATRIZIO ANGELINI, MICHAEL A BEKOS, FRANZ J BRANDENBURG, GIORDANO DA LOZZO, GIUSEPPE DI BATTISTA, WALTER DIDIMO, GIUSEPPE LIOTTA, FABRIZIO MONTECCHIANI, IGNAZ RUTTER. On the Relationship between k -Planar and k -Quasi Planar Graphs
	TOBIAS ANDERSSON GRANBERG, TATIANA POLISHCHUK, CHRISTIANE SCHMIDT. A Novel MIP-based Airspace Sectorization for TMAs
12.00–12.15	BENJAMIN NIEDERMANN, MARTIN NÖLLENBURG, IGNAZ RUTTER. Radial Contour Labeling with Straight Leaders
	LEON SERING. A Combinatorial Upper Bound on the Length of Twang Cascades
12.15–12.30	GILL BAREQUET, YUFEI ZHENG. Formulae Enumerating Polyominoes by both Area and Perimeter
	LINDA KLEIST, TILLMANN MILTZOW, PAWEŁ RZAŻEWSKI. Is Area Universality $\forall\exists\mathbb{R}$ -complete?
12.30–13.15	Session 5 Open problems (NI:C0E11) <i>Chair: Tillmann Miltzov</i>
13.15–14.15	Lunch
14.15–17.00	Social event
19.00–23.00	Conference dinner

Friday, April 7			
08.00–09.00	Registration		
09.00–10.00	Invited talk (NI:C0E11) <i>Chair: Valentin Polishchuk</i> JOE MITCHELL. Some Geometric Optimization Problems: Visitation, Visibility, and Variations		
10.00–10.30	Fast forward session (NI:C0E11)		
10.30–11.00	Coffee break		
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> Session 6A <i>Coloring, Intersection graphs</i> (NI:C0E11) <i>Chair: Erik Krohn</i> </td> <td style="width: 50%; vertical-align: top;"> Session 6B <i>Points in circles, Non-standard models, Arrangements</i> (NI:A0606) <i>Chair: Michael Hoffmann</i> </td> </tr> </table>	Session 6A <i>Coloring, Intersection graphs</i> (NI:C0E11) <i>Chair: Erik Krohn</i>	Session 6B <i>Points in circles, Non-standard models, Arrangements</i> (NI:A0606) <i>Chair: Michael Hoffmann</i>
Session 6A <i>Coloring, Intersection graphs</i> (NI:C0E11) <i>Chair: Erik Krohn</i>	Session 6B <i>Points in circles, Non-standard models, Arrangements</i> (NI:A0606) <i>Chair: Michael Hoffmann</i>		
11.00–11.15	MARK DE BERG, TIM LEIJSSSEN, ANDRÉ VAN RENSSSEN, MARCEL ROELOFFZEN, ALEKSANDAR MARKOVIC, GERHARD J WOEGINGER. A Lower Bound for the Dynamic Conflict-Free Coloring of Intervals with Respect to Points		
11.15–11.30	CSABA BIRO, EDOUARD BONNET, DANIEL MARX, TILLMANN MILTZOW, PAWEŁ RZAŻEWSKI. Fine-grained complexity of coloring unit disks and balls		
11.30–11.45	ALEXANDRE ROK, BARTOSZ WALCZAK. Coloring curves that cross a fixed curve		
11.45–12.00	SÁNDOR FEKETE, PHILLIP KELDENICH. Conflict-free coloring of intersection graphs		
12.00–12.15	MARK DE BERG, SÁNDOR KISFALUDI-BAK, GERHARD J WOEGINGER. On the Dominating Set Problem in Intersection Graphs		
12.15–12.30	HAIM KAPLAN, WOLFGANG MULZER, LIAM RODITTY, PAUL SEIFERTH. Finding Triangles and Computing the Girth in Disk Graphs		
12.30–13.30	Lunch		
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> Session 7A <i>Comb geom, Mathy</i> (NI:C0E11) <i>Chair: Joe Mitchell</i> </td> <td style="width: 50%; vertical-align: top;"> Session 7B <i>Coresets/Clustering, Nearest neighbors</i> (NI:A0606) <i>Chair: Kevin Verbeek</i> </td> </tr> </table>	Session 7A <i>Comb geom, Mathy</i> (NI:C0E11) <i>Chair: Joe Mitchell</i>	Session 7B <i>Coresets/Clustering, Nearest neighbors</i> (NI:A0606) <i>Chair: Kevin Verbeek</i>
Session 7A <i>Comb geom, Mathy</i> (NI:C0E11) <i>Chair: Joe Mitchell</i>	Session 7B <i>Coresets/Clustering, Nearest neighbors</i> (NI:A0606) <i>Chair: Kevin Verbeek</i>		
13.30–13.45	DANIEL GONÇALVES, LUCAS ISENMANN. Dushnik-Miller dimension of TD-Delaunay complexes		
13.45–14.00	BERNARDO M ÁBREGO, SILVIA FERNÁNDEZ-MERCHANT, MIKIO KANO, DAVID ORDEN, PABLO PÉREZ-LANTERO, CARLOS SEARA, JAVIER TEJEL. Star covering of red and blue points in the plane		
14.00–14.15	MATHIJS WINTRAECKEN. Bounds on the angle between tangent spaces and the metric distortion for C^2 manifolds with given positive reach		
14.15–14.30	SUNIL ARYA, GUILHERME D DA FONSECA, DAVID MOUNT. Near-Optimal eps-Kernel Construction and Related Problems		
14.30–14.45	Fast forward session (NI:C0E11)		
14.45–15.15	Coffee break		
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> Session 8A <i>Crossing/Planarity</i> (NI:C0E11) <i>Chair: Maarten Löffler</i> </td> <td style="width: 50%; vertical-align: top;"> Session 8B <i>Visibility/Guarding</i> (NI:A0606) <i>Chair: Elmar Langetepe</i> </td> </tr> </table>	Session 8A <i>Crossing/Planarity</i> (NI:C0E11) <i>Chair: Maarten Löffler</i>	Session 8B <i>Visibility/Guarding</i> (NI:A0606) <i>Chair: Elmar Langetepe</i>
Session 8A <i>Crossing/Planarity</i> (NI:C0E11) <i>Chair: Maarten Löffler</i>	Session 8B <i>Visibility/Guarding</i> (NI:A0606) <i>Chair: Elmar Langetepe</i>		
15.15–15.30	FABIAN KLUTE, MARTIN NÖLLENBURG. Minimizing crossings in constrained two-sided circular graph layouts		
15.30–15.45	BORIS KLEMLZ, GÜNTER RÖTE. Ordered Level Planarity and Geodesic Planarity		
15.45–16.00	PATRICK SCHNIDER. A generalization of crossing families		