

Third Annual Workshop on Algorithms and Computation (WALCOM 2009)



Indian Statistical Institute
203, B.T. Road, Kolkata, India

Tentative program

February 17, 2009 6:30 – 9:00pm: Registration and Pre-Conference Dinner at ISI Guest House

Date	Session & timings	Title of the session	Paper Nos. and Title	Authors
18 th Feb	Session 0 8:30-9:30	Registration		
	Session 1 9:30-10:30	Computational Geometry	Algorithms for computing diffuse reflection paths in polygons	Subir Ghosh, Partha Goswami, Anil Maheshwari, Subhas Nandy, Sudebkumar Pal and Swami Sarvattomananda
			Shortest Gently Descending Paths	Mustaq Ahmed, Anna Lubiw and Anil Maheshwari
	10:30-10:45	Tea		
	Session 2 10:50-11:50	Invited Talk (Janos Pach)	A separator theorem for string graphs and its applications	
	Session 3 12:00-13:00	Graph Algorithms	Collinear Coloring on Graphs	Kyriaki Ioannidou and Stavros Nikolopoulos
			Recursive generation of 5-regular planar graphs	Mahdieh Hasheminezhad, Brendan McKay and Tristan Reeves
	13:00 – 14:00	Lunch		
	Session 4 14:15 – 15:45	Complexity	The planar k-means problem is NP-hard	Meena Mahajan, Prajakta Nimbhorkar and Kasturi Varadarajan
			On the Computational Complexity of Disjunctive Constraint Satisfaction Problems	Miki Hermann and Florian Richoux
			Parameterized Complexity of Stabbing Rectangles and Squares in the Plane	Michael Dom, Michael Fellows and Frances A. Rosamond
	15:45 – 16:00	Tea		
	Session 5 16:00 – 18:00	Graph Drawing	Straight-Line Grid Drawings of Label-Constrained Outerplanar Graphs with $O(n \log n)$ Area	Md. Rezaul Karim, Md. Jawaherul Alam and Md. Saidur Rahman
Matched Drawability of Graph Pairs and of Graph Triples			Luca Grilli, Seok-Hee Hong, Giuseppe Liotta, Henk Meijer and Steve Wismath	
An Improved Upward Planarity Testing Algorithm and Related Applications			Sarmad Abbasi, Patrick Healy and Aimal Rextin	
Spherical-Rectangular Drawings			Mahdieh Hasheminezhad, S. Mehdi Hashemi and Brendan McKay	
18:00 – 18:30	Business meeting			
19 th Feb	Session 6 9:30 - 10:30	Approximation Algorithm	The Exemplar Breakpoint Distance for non-trivial genomes cannot be approximated	Guillaume Blin, Guillaume Fertin, Florian Sikora and Stephane Vialette
			The Minimal Manhattan Network Problem in Three Dimensions	Walter Unger, Xavier Munoz and Sebastian Seibert
	10:30 - 10:45	Tea		

19 th Feb	Session 7 10:50 - 11:50	Invited Talk (Chee Yap)	Foundations of Exact Rounding	
	Session 8 12:00 – 13:00	Computational Geometry	All Farthest Neighbors in the Presence of Highways and Obstacles	Sang Won Bae, Matias Korman and Takeshi Tokuyama
			Improved Algorithm for a Widest 1-corner Corridor	Gautam Das, Debapriyay Mukhopadhyay and Subhas Nandy
	13:00 – 14:00	Lunch		
	Session 9 14:00 – 15:00	Invited Talk (Sandeep Sen)	Approximating shortest paths in graphs	
	Session 10 15:10 – 16:10	Randomized Algorithms	Shape Matching by Random Sampling	Helmut Alt and Ludmila Scharf
			Object Caching for Queries and Updates	Philip Little and Amitabh Chaudhary
	16:10 – 16:25	Tea		
	Session 11 16:30 – 18:00	Graph Algorithm	Efficient Enumeration of Ordered Trees with k Leaves	Katsuhisa Yamanaka, Yota Otachi and Shin-Ichi Nakano
			Generating All Triangulations of Plane Graphs	Mohammad Tanvir Parvez, Md. Saidur Rahman and Shin-Ichi Nakano
Recognition of Unigraphs through Superposition of Graphs			Alessandro Borri, Tiziana Calamoneri and Rossella Petreschi.	
18:30 – 21:30	Banquet			
20 th Feb	Session 12 9:30- 10:30	Graph Algorithm	Crossing-Optimal Acyclic Hamiltonian Path Completion and its Application to Upward Topological Book Embeddings	Tamara Mchedlidze and Antonios Symvonis
			A fully dynamic graph algorithm for recognizing proper interval graphs	Louis Ibarra
	10:30- 10:45	Tea		
	Session 13 10:50- 11:50	Invited Talk (Otfried Cheong)	Line Transversals and Pinning Numbers	
	Session 14 12:00 – 13:00	Computational Geometry	Maximum Neighbour Voronoi Games	Md. Muhibur Rasheed, Masud Hasan and M Sohel Rahman
			On Exact Solutions to the Euclidean Bottleneck Steiner Tree Problem	Sang Won Bae, Chunseok Lee and Sunghee Choi
	13:00 – 14:00	Lunch		
	Session 15 14:00 – 15:30	Graph Algorithm	Minmax Tree Cover in the Euclidean Space	Seigo Karakawa, Ehab Morsy and Hiroshi Nagamochi
			Network Design with Weighted Degree Constraints	Takuro Fukunaga and Hiroshi Nagamochi
			Minimum Cuts of Simple Graphs in Almost Always Linear Time	Michael Brinkmeier
15:30 – 15:50	Tea			
Session 16 16:00 – 17:30	Graph Algorithm	The Generalized Stable Allocation Problem	Brian Dean and Namrata Swar	
		Random Generation and Enumeration of Proper Interval Graphs	Toshiki Saitoh, Katsuhisa Yamanaka, Masashi Kiyomi and Ryuhei Uehara.	
		Core and conditional core path of specified length in special classes of graphs	Balasubramanian Sivan, S Harini and Pandu Rangan C	