

WALCOM 2019

The 13th International Conference and Workshops on Algorithms and Computation, February 27 - March 02, 2019 | Indian Institute of Technology Guwahati (IIT Guwahati)



HOME | CALL FOR PAPERS | IMPORTANT DATES | COMMITTEE | SPEAKERS | ACCEPTED PAPERS | CAMERA READY INSTRUCTIONS | PRE-CONFERENCE
WORKSHOP | PROGRAM | REGISTRATION | VISA | VENUE | ACCOMMODATION | PAST EDITIONS

Tentative Technical Program for WALCOM 2019 ([Download Here](#))

February 27, Wednesday	Day 0: Pre-Conference Workshop		
	9:00 - 10:00	Registration	
	10:00-11:00 & 11:30-12:30	Workshop Lecture 1 Session Chair: Saidur Rahman	Low Memory Algorithms by Subhas C. Nandy
	12:30-2:00	Lunch (Conference Venue)	
	14:00-15:00 & 15:30-16:30	Workshop Lecture 2 Session Chair: David Peleg	Algorithm on (Fat)-Trees and its Applications in Designing Approximation and Exact Algorithms by Saket Saurabh
	16:30-17:00	High Tea	
	17:00-18:30	Inauguration	
	19:30-21:00	Welcome Dinner (1st Floor Dining Hall, Old Guest House)	
February 28, Thursday	Day 1: Conference		
	08:30 - 10:30	Registration	
	09:10 - 10:25	Session 1A (Facility Location Problem) Session Chair: Takashi Horiyama	Shareef Ahmed, Shin-Ichi Nakano and Md. Saidur Rahman. r-Gatherings on a Star Ivor Hoog V.D., Marc Van Kreveld, Wouter Meulemans, Kevin Verbeek and Jules Wulms. Topological stability of kinetic k-centers Anik Sarker, Wing-Kin Sung and M. Sohel Rahman. A linear time algorithm for the r-gathering problem on line (Extended Abstract)
	10:45 - 11:45	Session 1B (Invited Talk) Session Chair: Shin-Ichi Nakano	Parameterized Computational Geometry via Decomposition Theorems by Saket Saurabh
	11:45 - 12:35	Session 1C (Computational Geometry I) Session Chair: Saket Saurabh	Sang Won Bae, Arpita Baral and Priya Ranjan Sinha Mahapatra. Maximum-Width Empty Square and Rectangular Annulus

		Javier T. Akagi, Carlos F. Gaona, Fabricio Mendoza, Manjil P. Saikia and Marcos Villagra. Hard and Easy Instances of L-Tromino Tilings	
12:35 - 14:00	Lunch (Conference Venue)		
14:00 - 15:15	Session 1D (Computational Geometry II) Session Chair: Antoine Vigneron	Christian Scheffer. The Prefix Fréchet Similarity	
		Stefan Klootwijk, Bodo Manthey and Sander Visser. Probabilistic Analysis of Optimization Problems on Generalized Random Shortest Path Metrics	
		Masahiro Okubo, Tesshu Hanaka and Hirotaka Ono. Optimal Partition of a Tree with Social Distance	
15:40 - 16:55	Session 1E (Graph Drawing) Session Chair: Mark de Berg	Yiyang Jia, Yoshihiro Kanamori and Jun Mitani. Flat-foldability for $1 \times n$ maps with square/diagonal grid patterns	
		Emilio Di Giacomo, William Lenhart, Giuseppe Liotta, Timothy Randolph and Alessandra Tappini. (k,p)-Planarity: A Relaxation of Hybrid Planarity	
		Tamara Mchedlidze, Marcel Radermacher, Ignaz Rutter and Nina Zimbel. Drawing Clustered Graphs on Disk Arrangements	
19:30-21:00	Dinner (1st Floor Dining Hall, Old Guest House)		
March 01, Friday	Day 2: Conference		
	09:10 - 10:25	Session 2A (Graph Algorithms I) Session Chair: Ryuhei Uehara	Duygu Vietz, Stefan Hoffmann and Egon Wanke. Computing the metric dimension by decomposing graphs into extended biconnected components
			Venkatakrishnan Y B and Naresh Kumar H. On the Algorithmic Complexity of Double vertex-edge domination in graphs
			Shuji Jimbo and Akira Maruoka. The Upper Bound on the Eulerian Recurrent Lengths of Complete Graphs Obtained by an IP Solver
	10:45 - 11:45	Session 2B (Invited Talk) Session Chair: Krishnendu Mukhopadhyaya	Graph Profile Realizations and Applications to Social Networks by <i>David Peleg</i>
	11:45 - 12:35	Session 2C (Graph Algorithms II) Session Chair: Egon Wanke	Takuya Tamori and Kei Kimura. A Fast Algorithm for Unbounded Monotone Integer Linear Systems with Two Variables per Inequality via Graph Decomposition
			Lukas Barth, Guido Brückner, Paul Jungeblut and Marcel Radermacher. Multilevel Planarity
	12:35 - 14:00	Lunch (Conference Venue)	
	14:00 - 15:15	Session 2D (Approximation Algorithms) Session Chair: SV Rao	Kaveh Khoshkhan, Mehdi Khosravian Ghadikolaei, Jerome Monnot and Florian Sikora. Weighted Upper Edge Cover: complexity and approximability
Soh Kumabe, Takanori Maehara and Ryoma Sin'Ya. Linear Pseudo-Polynomial Factor Algorithm for Automaton Constrained Tree Knapsack Problem			
Hyeyun Yang and Antoine Vigneron. Matching Sets of Line Segments			

	15:40 - 16:30	Session 2E (Miscellaneous) Session Chair: Gautam Kumar Das	Koichi Mizunashi, Takashi Horiyama and Ryuhei Uehara. Efficient algorithm for box folding	
			Ajinkya Borle and Samuel Lomonaco. Analyzing the Quantum Annealing Approach for Solving Linear Least Squares Problems	
	16:30- 17:00	Business Meeting		
	17:30 Onwards	Conference Banquet and Presentations		
March 02, Saturday	Day 3: Conference			
	09:10 - 10:25	Session 3A (Data Structures) Session Chair: Deepanjan Kesh	Wing-Kin Sung. Greedy consensus tree and maximum greedy consensus tree problems	
			Mirza Galib Anwarul Husain Baig, Deepanjan Kesh and Chirag Sodani. A Two Query Adaptive Bitprobe Scheme Storing Five Elements	
			Ali Alatabbi, Jackie Daykin, Neerja Mhaskar, M. Sohel Rahman and William F. Smyth. Applications of V-Order: Suffix arrays, the Burrows-Wheeler transform & the FM-index	
	10:45 - 11:45	Session 3B (Invited Talk) Session Chair: Subhas Chandra Nandy	ETH-Tight Exact Algorithms for Hard Geometric Problems Using Geometric Separators by Mark de Berg .	
	11:45 - 12:35	Session 3C (Parallel and Distributed Algorithms) Session Chair: Partha Sarathi Mandal	Max Bannach, Malte Skambath and Till Tantau. Towards Work-Efficient Parallel Parameterized Algorithms	
			Kaustav Bose, Ranendu Adhikary, Manash Kumar Kundu and Buddhadeb Sau. Arbitrary Pattern Formation on Infinite Grid by Asynchronous Oblivious Robots	
12:35 - 14:00	Lunch (Conference Venue)			
14:00 - 15:40	Session 3D (Packing and Covering) Session Chair: Sohel Rahman	Helmut Alt, Otfried Cheong, Ji-Won Park and Nadja Scharf. 3D-disk-packing		
		Satyabrata Jana and Supantha Pandit. Covering and Packing of Rectilinear Subdivision		
		Joseph S. B. Mitchell and Supantha Pandit. Minimum Membership Covering and Hitting		
		Pawan Kumar Mishra, Sangram Kishor Jena, Gautam K Das and S V Rao. Capacitated Discrete Unit Disk Cover		