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## [COCOON 2012](#)

[18th Annual International Computing and Combinatorics Conference](#)

### [Conference program](#)

The conference will run for three days (August 20-22). Each day will start with a 1-hour invited talk followed by four sessions of 20-minute contributed talks. Coffee and lunch will be served outside the conference venue. For a detail schedule, scroll down in this page.

In addition to the scientific program, we will have two social events:

- Reception: The day before the conference (Aug 19) at 19:00.
- Conference dinner: On the second day of the conference (Aug 21) at 19:00.

Registration opens on August 20 at 8:00 at the conference venue.

### [Scientific program](#)

#### **First Day (20 August 2011)**

<b>Invited talk</b>	8:30	<b>Geometric Network Optimization</b> Joseph Mitchell
<b>Session 1</b>	9:30	<b>A Linear Time Algorithm for Computing Minmax Regret 1-Median on a Tree with Positive Vertex Weights</b> Binay Bhattacharya and Tsunehiko Kameda
	9:50	<b>A simple <math>D^2</math>-sampling based PTAS for k-means</b> Ragesh Jaiswal, Amit Kumar and Sandeep Sen

<b>Break</b>	10:10	Coffee Break
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<b>Session 2</b>	10:30	<b>Speed Scaling for Maximum Lateness</b> Evrpidis Bampis, Dimitrios Letsios, Ioannis Milis and Georgios Zois
	10:50	<b>Induced subgraph isomorphism: Are some patterns substantially easier than others?</b> Peter Floderus, Mirosław Kowaluk, Andrzej Lingas and Eva-Marta Lundell
	11:10	<b>Contiguous min single-source-multi-sink cuts in weighted planar graphs</b> Ivona Bezakova and Zach Langley
	11:30	<b>Online Knapsack Problem with Removal Cost</b> Xin Han, Yasushi Kawase and Kazuhisa Makino
	11:50	<b>An Improved Exact Algorithm for TSP in Degree-4 Graphs</b> Mingyu Xiao and Hiroshi Nagamochi

<b>Lunch</b>	12:10	Lunch Period
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<b>Session 3</b>	13:30	<b>Dynamic Programming for <math>H</math>-minor-free Graphs</b> Juanjo Rué, Ignasi Sau and Dimitrios Thilikos
	13:50	<b>Restricted Max-Min Fair Allocations with Inclusion-free Intervals</b> Monaldo Mastrolilli and Georgios Stamoulis
	14:10	<b>An Improved Algorithm for Packing <math>T</math>-Paths in Inner Eulerian Networks</b> Maxim Babenko, Kamil Salikhov and Stepan Artamonov.
	14:30	<b>Towards Optimal and Expressive Kernelization for <math>d</math>-Hitting Set</b> René Van Bevern
	14:50	<b>Maximum number of minimal feedback vertex sets in chordal graphs and cographs</b> Jean-François Couturier, Pinar Heggernes, Pim Van 'T Hof and Yngve Villanger

<b>Break</b>	15:10	Coffee Break
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<b>Session 4</b>	15:30	<b>A local algorithm for finding dense bipartite-like subgraphs</b> Pan Peng

	15:50	<b>Algorithms for the Strong Chromatic Index of Halin Graphs, Distance-hereditary Graphs and Maximal Outerplanar Graphs</b> Ton Kloks, Sheung-Hung Poon, Chin-Ting Ung and Yue-Li Wang
	16:10	<b>On the Minimum Degree Hypergraph Problem with Subset Size two and the Red-Blue Hitting Set Problem with the Consecutive Ones Property</b> Biing-Feng Wang and Chih-Hsuan Li
	16:30	<b>Rainbow Colouring of Split and Threshold Graphs</b> L. Sunil Chandran and Deepak Rajendraprasad
	16:50	<b>Approximating the rainbow - better lower and upper bounds</b> Alexandru Popa

## Second Day (21 August 2011)

<b>Invited talk</b>	8:30	<b>Extremal problems for geometric graphs---new methods</b> Janos Pach
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<b>Session 5</b>	9:30	<b>Ramsey numbers for line graphs and perfect graphs</b> Remy Belmonte, Pinar Heggernes, Pim Van T Hof and Reza Saei.
	9:50	<b>Geodesic Order Types</b> Oswin Aichholzer, Matias Korman, Alexander Pilz and Birgit Vogtenhuber

<b>Break</b>	10:10	Coffee Break
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<b>Session 6</b>	10:30	<b>Computing Partitions of Rectilinear Polygons with Minimum Stabbing Number</b> Stephane Durocher and Saeed Mehrabi
	10:50	<b>Monotone paths in planar convex subdivisions</b> Adrian Dumitrescu, Günter Rote and Csaba Toth
	11:10	<b>Complementary vertices and adjacency testing in polytopes</b> Benjamin A. Burton
	11:30	<b>Optimally solving a transportation problem using Voronoi diagrams</b>

		Darius Geiß, Rolf Klein and Rainer Penninger.
	11:50	<b>Unexplored Steiner Ratios in Geometric Networks</b> Lilach Chaitman-Yerushalmi and Paz Carmi

<b>Lunch</b>	12:10	Lunch Period
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<b>Session 7</b>	13:30	<b>Geometric RAC Simultaneous Drawings of Graphs</b> Evmorfia Argyriou, Michael Bekos, Michael Kaufmann and Antonios Symvonis.
	13:50	<b>Simultaneous Embeddings with Vertices Mapping to Pre-Specified Points</b> Taylor Gordon
	14:10	<b>Multilevel Drawings of Clustered Graphs</b> Fabrizio Frati
	14:30	<b>Outerplanar graph drawings with few slopes</b> Kolja Knauer, Piotr Micek and Bartosz Walczak
	14:50	<b>Fary's Theorem for 1-Planar Graphs</b> Seok-Hee Hong, Peter Eades, Giuseppe Liotta and S Poon

<b>Break</b>	15:10	Coffee Break
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<b>Session 8</b>	15:30	<b>Constant Time Enumeration of Bounded-Size Subtrees in Trees and Its Application</b> Kunihiro Wasa, Takeaki Uno and Hiroki Arimura
	15:50	<b>External Memory Soft Heap, and Hard Heap, a Meldable Priority Queue</b> Alka Bhushan and Sajith Gopalan
	16:10	<b>Partially Specified Nearest Neighbor Search</b> Marcel Schoengens and Tomas Hruz
	16:30	<b>Multi-Pattern Matching with Bidirectional Indexes</b> Simon Gog, Kalle Karhu, Juha Kärkkäinen, Veli Mäkinen and Niko Välimäki.
	16:50	<b>Succinct Representations of Binary Trees for Range Minimum Queries</b> Pooya Davoodi, Rajeev Raman and Srinivasa Rao Satti

**Third Day (22 August 2011)**

<b>Invited talk</b>	8:30	<b>Online matching</b> Kamal Jain
<b>Session 9</b>	9:30	<b>Lower Bounds against Weakly Uniform Circuits</b> Ruiwen Chen and Valentine Kabanets
	9:50	<b>On TC<sub>0</sub> Lower Bounds for the Permanent</b> Jeff Kinne
<b>Break</b>	10:10	Coffee Break
<b>Session 10</b>	10:30	<b>Formula Complexity of Ternary Majorities</b> Kenya Ueno
	10:50	<b>On the kernelization complexity of problems on graphs without long odd cycles</b> Fahad Panolan and Ashutosh Rai
	11:10	<b>The Complexity of Unary Subset Sum</b> Nutan Limaye, Meena Mahajan and Karteek Sreenivasaiah
	11:30	<b>On the Advice Complexity of Tournaments</b> Sebastian Ben Daniel
	11:50	<b>A remark on one-wayness versus pseudorandomness</b> Periklis Papakonstantinou and Guang Yang
<b>Lunch</b>	12:10	Lunch Period
<b>Session 11</b>	13:30	<b>Integral Mixed Unit Interval Graphs</b> Van Bang Le and Dieter Rautenbach
	13:50	<b>The cost of bounded curvature</b> Hyo-Sil Kim and Otfried Cheong
	14:10	<b>Online Coloring of Bipartite Graphs With and Without Advice</b> Maria Paola Bianchi, Hans-Joachim Böckenhauer, Juraj Hromkovic and Lucia Keller
	14:30	<b>Deep Coalescence Reconciliation with Unrooted Gene Trees: Linear Time Algorithms</b> Pawel Gorecki and Oliver Eulenstein
	14:50	<b>On the <math>\\$2\\$</math>-Central Path Problem</b> Yongding Zhu and Jinhui Xu
<b>Break</b>	15:10	Coffee Break

<b>Session 12</b>	15:30	<b>Making Profit in a Prediction Market</b> Jen-Hou Chou, Chi-Jen Lu and Mu-En Wu
	15:50	<b>Computing Shapley Value in Supermodular Coalitional Games</b> David Liben-Nowell, Alexa Sharp, Tom Wexler and Kevin Woods
	16:10	<b>Equilibria of GSP for range auction</b> H.F. Ting and Xiangzhong Xiang
	16:30	<b>Stretch in Bottleneck Games</b> Costas Busch and Rajgopal Kannan

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## • Invited Speakers

- Kamal Jain, eBay
- [Joseph Mitchell](#), Stony Brook
- [János Pach](#), EPFL

## • Important Dates

- Submission deadline: Feb 18, 2012
- Notification: Apr 18, 2012
- Final version: **May 12, 2012**
- Conference: **Aug 20-22, 2012**

## • Sponsors

