

Sunday, July 12. 5pm-8pm.

Opening Registration and Reception
Lobby of the Niagara Falls Conference Center.

Monday, July 13

8:00am--9:00am. Breakfast at the Niagara Falls conference center.

9:00am--10:00am. Keynote Speech.

Eva Tardos

10:30am--12:00pm

TS1: Algorithmic Game Theory and Coding Theory
Room:

On the performances of Nash Equilibria in Isolation Games
Vittorio Bilo', Michele Flammini, Gianpiero Monaco and Luca Moscardelli.

An Attacker-Defender Game for Honeynets
Jin-Yi Cai, Vinod Yegneswaran, Chris Alfeld and Paul Barford.

Limits to List Decoding Random Codes
Atri Rudra.

TS2: Algorithms and Data Structures
Room:

Algorithm for Finding k-Vertex Out-trees and its Application to k-Internal Out-branching Problem
Nathann Cohen, Fedor Fomin, Gregory Gutin, Eun Jung Kim, Saket Saurabh and Anders Yeo.

A $(4n - 4)$ -bit representation of a rectangular drawing or floorplan
Toshihiko Takahashi, Ryo Fujimaki and Youhei Inoue.

Relationship between Approximability and Request Structures in the Minimum Certificate Dispersal Problem
Tomoko Izumi, Taisuke Izumi, Hirota Ono and Koichi Wada.

12:00pm--1:30pm. Lunch Buffet

1:30pm--3:00pm

TS3: Graph Drawing
Room:

Coordinate Assignment for Cyclic Level Graphs
Christian Bachmaier, Franz Josef Brandenburg, Wolfgang Brunner and Raymund Fülöp.

Crossing-optimal acyclic HP-completion for outerplanar st-digraphs
Tamara Mchedlidze and Antonios Symvonis.

Edge-intersection graphs of k-bend paths in grids
Therese Biedl and Michal Stern.

TS4: Algorithms and Data Structures
Room:

Efficient Data Structures for the Orthogonal Range Successor Problem
Chih-Chiang Yu, Wing-Kai Hon and Bing-Feng Wang.

Reconstruction of Interval Graphs
Masashi Kiyomi, Toshiki Saitoh and Ryuhei Uehara.

A Fast Algorithm for Computing a Nearly Equitable Edge Coloring with Balanced Conditions
Akiyoshi Shioura and Mutsunori Yagiura.

3:30pm--5:00pm

TS5: Cryptography and Security
Room:

Minimal Assumptions and Round Complexity for Concurrent Zero-Knowledge in the Bare Public-Key Model
Giovanni Di Crescenzo.

Efficient Non-Interactive Range Proof
Tsz Hon Yuen, Qiong Huang, Yi Mu, Willy Susilo, Duncan S. Wong and Guomin Yang.

Approximation Algorithms for Key Management in Secure Multicast
Agnes Chan, Rajmohan Rajaraman, Zhifeng Sun and Feng Zhu.

TS6: Algorithms
Room:

On Smoothed Analysis of Quicksort and Hoare's Find
Mahmoud Fouz, Manfred Kufleitner, Bodo Manthey and Nima Zeini Jahromi.

On an Online Traveling Repairman Problem with Flowtimes: Worst-Case and Average-Case Analysis
Alexander Souza and Axel Simroth.

Three new algorithms for regular language enumeration
Margareta Ackerman and Erkki Mäkinen.

Tuesday, July 14

8:00am--9:00am. Breakfast at the Niagara Falls conference center.

9:00am--10:00am. Invited Plenary Talk

Venkat Guruswami

10:30am--12:00pm.

TS7: Computational Geometry
Room:

Convex Partitions with 2-Edge Connected Dual Graphs
Marwan Al-Jubeh, Michael Hoffmann, Mashhood Ishaque, Diane Souvaine and Csaba Toth.

The Closest Pair Problem Under the Hamming Metric
Kerui Min, Ming-Yang Kao and Hong Zhu.

Space-Efficient Multi-Dimensional Range Reporting
Marek Karpinski and Yakov Nekrich.

TS8: Approximation Algorithms
Room:

Approximation Algorithms for a Network Design Problem
Binay Bhattacharya, Yuzhuang Hu and Qiaosheng Shi.

An FPTAS for the minimum total weighted tardiness problem with a fixed number of distinct due dates
George Karakostas, Stavros Kolliopoulos and Jing Wang.

On the Hardness and Approximability of Planar Biconnectivity Augmentation
Carsten Gutwenger, Petra Mutzel and Bernd Zey.

12:00pm--2:00pm. Lunch break. (Attendees on their own.)

2:00pm--3:00pm

TS9: Computational Biology and Bioinformatics
Room:

TS10: Sampling and Learning
Room:

TS11: Algorithms
Room:

Determination of glycan structure from tandem mass spectra
Sebastian Böcker, Birte Kehr and Florian Rasche.

On the Diaconis-Gangolli Markov Chain for Sampling Contingency Tables with Cell-Bounded Entries
Ivona Bezakova, Nayantara Bhatnagar and Dana Randall.

Online Tree Node Assignment with Resource Augmentation
Joseph Chan, Francis Chin, Hing-Fung Ting and Yong Zhang.

The Generalised Character Compatibility Problem for Non-Branching Character Trees
Jan Manuch, Murray Patterson and Arvind Gupta.

Finding a Level Ideal of a Poset
Shuji Kijima and Toshio Nemoto.

Why Locally-Fair Maximal Flows in Client-Server Networks Perform Well
Kenneth Berman and Chad Yoshikawa.

Coffee Break

3:30pm--5:00pm

Inferring peptide composition from molecular formulas
Anton Pervukhin and Sebastian Böcker.

A polynomial-time perfect sampler for the Q-Ising with a vertex-independent noise
Masaki Yamamoto, Shuji Kijima and Yasuko Matsui.

On finding small 2-generating sets.
Isabelle Fagnot, Guillaume Fertin and Stéphane Vialette.

Optimal Transition Selection for Targeted Protein Quantification
Rastislav Sramek, Bernd Fischer, Elias Vicari and Peter Widmayer.

Extracting Computational Entropy and Learning Noisy Linear Functions
Chia-Jung Lee, Chi-Jen Lu and Shi-Chun Tsai.

Convex Recoloring Revisited: Complexity and Exact Algorithms
Iyad Kanj and Dieter Kratsch.

Computing Bond Types in Molecule Graphs
Sebastian Böcker, Quang Bao Anh Bui, Patrick Seeber and Anke Truss.

HITS can converge slowly, but not too slowly, in score and rank
Enoch Peserico and Luca Pretto.

Strongly chordal and chordal bipartite graphs are sandwich monotone
Pinar Heggernes, Federico Mancini, Charis Papadopoulos and R. Sritharan.

6:30pm--8:00pm. Conference banquet.

Wednesday, July 15

8:00am--9:00am. Breakfast at the Niagara Falls conference center.

9:00:am--10:00am. Invited Plenary Talk

Muthu Muthukrishnan

10:30am--12:00am

TS12: Complexity and Computability
Room:
Chair: Alan Selman

Hierarchies and Characterizations of Stateless Multicounter Machines

Oscar Ibarra and Omer Egecioglu.

Efficient Universal Quantum Circuits

Debajyoti Bera, Stephen Fenner, Steve Homer and Frederic Green.

An Improved Time-Space Lower Bound for Tautologies

Scott Diehl, Dieter van Melkebeek and Ryan Williams.

TS13: Probabilistic Analysis
Room:

Random Deployment of Wireless Sensor Networks: Power of Second Chance

Xiang-Yang Li, YaJun Wang and WangSeng Feng.

The Weighted Coupon Collector's Problem and Applications

Petra Berenbrink and Thomas Sauerwald.

Sublinear-time Algorithms for Tournament Graphs

Lars Nagel, Stefan Dantchev and Tom Friedetzky.

12:00pm--1:30pm. Lunch Break (Attendees on Their Own)

1:30pm--3:00pm

TS14: Complexity and Computability
Room:

Classification of a Class of Counting Problems using Holographic Reductions

Michael Kowalczyk.

Separating NE from Some Nonuniform Nondeterministic Complexity Classes

Bin Fu, Angsheng Li and Liyu Zhang.

On the Readability of Monotone Boolean Formulae

Khaled Elbassioni, Kazuhisa Makino and Imran Rauf.

TS15: Algorithms and Data Structures
Room:

Popular Matchings: Structure and Algorithms

Eric J McDermid and Robert Irving..

Graph-Based Data Clustering with Overlaps

Michael Fellows, Jiong Guo, Christian Komusiewicz, Rolf Niedermeier and Johannes Uhlmann

Directional Geometric Routing on Mobile Ad Hoc Networks

Kazushige Sato and Takeshi Tokuyama.