

Personal Information

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Academic Employment

- **Associate Professor**, July 2024 - present
Department of Electrical Engineering and Computer Science (EECS),
Lassonde School of Engineering, York University
- **Assistant Professor**, July 2022 - June 2024
Department of Electrical Engineering and Computer Science (EECS),
Lassonde School of Engineering, York University
- **Assistant Professor**, July 2017 - June 2022
Adjunct Professor, July 2022 - present
Department of Computer Science, University of Manitoba
- **Post-doctoral Fellow**, September 2015 - June 2017
Computer Science and Artificial Intelligence Laboratory (CSAIL)
Massachusetts Institute of Technology (MIT)
Adviser: Charles E. Leiserson

Education

- **University of Waterloo**, Waterloo, Canada.
Ph.D. in Computer Science, September 2008 - September 2014
 Thesis: *Alternative Approaches for Analysis of Bin Packing and List Update Problems*
 Advisor: Alejandro (Alex) López-Ortiz
 Thesis Committee:
 David S. Johnson (External Examiner, Computer Science, Columbia University)
 Jochen Könnemann (Internal-external Member, Combinatorics and Optimization, University of Waterloo)
 Jonathan Buss (Internal Member, Computer Science, University of Waterloo)
 J. Ian Munro (Internal Member, Computer Science, University of Waterloo)
 Coursework:
 Mathematical Foundations of Computer Networking (with S. Keshav), Topics in Data Structures (with J. Ian Munro), Online Algorithms: Competitive Analysis and Beyond (with A. López-Ortiz), Graph Theoretic Algorithms (with T. Biedl), Numeric Computation for Financial Modelling (with Y. Li), Computational Techniques in Biological Sequence Analysis (with B. Ma), Topics in Distributed Information Systems (with K. Daudjee)
- **Concordia University**, Montreal, Canada.
M.Sc. in Computer Science, September 2006 - August 2008
 Thesis: *Broadcasting in Weighted-Vertex Graphs*

Advisor: Hovhannes A. Harutyunyan

Coursework:

Discrete Mathematics of Paul Erdős (with [V. Chvátal](#)), Advanced Algorithm Design (with [H. Harutyunyan](#)), Computational Geometry (with [T. Fevens](#)), Statistical Natural Language Processing (with [L. Kosseim](#))

- **University of Tehran**, Tehran, Iran.

B.Sc. in Computer Science, September. 2002 - August 2006

Research Overview

I am broadly interested in theoretical computer science. A common theme in my research is the application of new theoretical techniques to develop practical algorithms. My journal papers have been published in venues such as *Algorithmica*, *DAM*, *JAIR*, *JCSS*, *ORL*, and *TOCS*, and my conference papers have appeared in venues such as *AAAI*, *CIKM*, *DCC*, *EDBT*, *ICDCS*, *ICALP*, *ICLR*, *ICML*, *IJCAI*, *ITCS*, *MFCS*, *SPAA*, and *STACS*.

My areas of interest include:

- Design and analysis of online algorithms
- Graph optimization problems
- Augmenting online algorithms with machine-learned predictions
- Big data applications of online and streaming algorithms (e.g., resource allocation in the Cloud and partitioning social networks)
- Beyond worst-case analysis of algorithms
- Blockchain technology and cryptocurrencies
- Data compression and compact data structures

Research Funding

- Discovery Grant titled “*Algorithmic Solutions for Navigating Uncertainty: Practical Models, Predictions, and Fairness*”, Natural Sciences and Engineering Research Council of Canada ([NSERC](#)), \$235,000 (principal investigator), 2025 - 2030
- Title: “*Enhancing Recruitment Application Processing Using Artificial Intelligence Technology*” [MITACS Accelerate](#), for research partnership with the [ApplyBoard](#) Company, \$70,000 (total), May 2024 - December 2024
- York University Start-up Grant, \$100,000 (principal investigator), 2022
- Title: “*Financial Analysis of Digital Assets: The Interrelationship with Traditional Assets and Improving Digital Asset Modelling over Conventional Financial Assets*” [MITACS Accelerate](#), for research partnership with the [FLUIDEFI](#) Company, \$30,000, matched by the company (co-investigator), 2021 - 2022
- Title: “*New Approaches in Online Financial Optimization*” Institute for Information Sciences ([INS2I](#)) Research Project, Centre national de la recherche scientifique ([CNRS](#)), PIMS-Europe collaboration, €10,400 (co-investigator), 2021 - 2022
- Faculty of Science COVID19 Re-energization Fund, University of Manitoba (teaching relief fund), 2021
- Projets Exploratrices Premier Soutien ([PEPS](#)), Centre national de la recherche scientifique ([CNRS](#)), PIMS-Europe collaboration, €11,000 (co-investigator), 2019 - 2020
- Discovery Launch Supplement ([DGEGR](#)), Natural Sciences and Engineering Research Council of Canada ([NSERC](#)), \$12,500 (principal investigator), 2018 - 2019

- Discovery Grant, Natural Sciences and Engineering Research Council of Canada (NSERC), \$140,000 (principal investigator), 2018 – 2025 (two-year extension due to COVID19 pandemic)
- Faculty of Science Start-Up Grant, University of Manitoba, \$45,000 (principal investigator), 2017

Awards and Honours

- Natural Sciences and Engineering Research Council of Canada Postdoctoral Fellowships Program (NSERC PDF) scholarship, 2015 - 2017.
- NSERC Japan Society for the Promotion of Science Postdoctoral Fellowships (NSERC-JSPS), 2015 - 2017 (declined).
- University of Waterloo Doctoral Thesis Completion Award, 2014.
- Derick Wood Memorial Graduate Scholarship, 2013 - 2014.
- Ontario Graduate Scholarship (OGS), 2012 - 2013.
- University of Waterloo President's Graduate Scholarship (PGS), 2012 - 2013.
- Natural Sciences and Engineering Research Council of Canada Michael Smith Foreign Study Supplements (NSERC MSFSS) scholarship, 2012.
- Natural Sciences and Engineering Research Council of Canada Alexander Graham Bell Canada Graduate Scholarships (NSERC CGS - D3), 2009 - 2012.
- University of Waterloo President's Graduate Scholarship (PGS), 2009 - 2012.
- University of Waterloo Mathematics Graduate Experience Award, 2008 - 2012.
- University of Waterloo Graduate Entrance Scholarship, 2008 - 2009.
- The first place in international U.S.Open competitions in soccer robots 3D-simulation league, together with University of Tehran UTUtd team, Atlanta, Georgia, 2005.
- The sixth place in international RoboCup Competitions in Soccer Robots 3D-simulation League, together with University of Tehran UTUtd team, Osaka, Japan, 2005.

Teaching Certificates

- **Kaufman Teaching Certificate Program (KTCP)**
MIT Teaching & Learning Lab, May - June 2016
KTCP is an interactive workshop intended for graduate students and postdocs interested in academic careers or developing skills to support their teaching at MIT.
See <http://t11.mit.edu/design/kaufman-teaching-certificate-program-ktcp> for details.
- **Certificate in University Teaching (CUT)**
Centre for Teaching Excellence at University of Waterloo, Sept. 2009 - Sept. 2014
The CUT program comprises a few courses and workshops and a research project that are completed in a span of six to nine terms, and prepares PhD students to be self-aware, critically-reflective teachers with both theoretical knowledge and practical skills that contribute to success in an academic career.
See <https://uwaterloo.ca/centre-for-teaching-excellence/support-graduate-students/certificate-university-teaching> for details.

Workshops: Course design, Understanding the learner, Dealing with classroom disruptions (successful classroom management), Critical thinking, Writing as a learning tool, Building credibility in a teaching environment, Writing a teaching dossier, and Research projects workshop

Final project title: *Efficient Use of Classroom Response Systems in Teaching Mathematics and Computer Science Courses.*

Teaching Experience

- Graduate Courses:

Artificial Intelligence (EECS 5326)

York University, Winter 2025

Advanced Algorithm Design and Analysis (EECS 6111)

York University, Winter 2024, Fall 2025

Topics in Algorithm: Graph Algorithms (Comp 4060/7720)

University of Manitoba, Winter 2022.

Topics in Algorithm: Online Algorithms (Comp 4060/7720)

University of Manitoba, Fall 2017, Fall 2018, Fall 2019, Fall 2020.

- Undergraduate Courses:

Advanced Topics in Algorithms (EECS 4171)

York University, Fall 2024 (scheduled)

Artificial Intelligence (EECS 4401/5326)

York University, Winter 2024, Summer 2024

Advanced Data Structures (LE/EECS 4101 GS/EECS 5101)

York University, Winter 2023, Winter 2026.

Design and Analysis of Algorithms (LE/EECS 3101)

York University, Fall 2022, Fall 2023, Fall 2025.

Advanced Analysis and Design of Algorithms (Comp 4420)

University of Manitoba, Winter 2020, Winter 2022.

Analysis of Algorithms and Data Structures (Comp 3170)

University of Manitoba, Winter 2018, Winter 2019, Winter 2020.

Data Structures and Algorithms (Comp 2140)

University of Manitoba, Winter 2019, Fall 2020, Fall 2021.

Data Structures and Data Management (CS 240)

University of Waterloo, Winter 2014, Spring 2015.

- Guest Lecturer:

Advanced Performance Engineering of Software Systems, lecture on *CilkSan Determinacy Race Detector*, Massachusetts Institute of Technology, Spring 2017

Online algorithms & Applications, lecture on *Competitiveness of Bin Packing and k-server algorithms*, University of Waterloo, Spring 2014.

- Teaching Assistant:

(all at University of Waterloo)

Algorithms (Fall 2009, Winter 2009, Spring 2011), Data Structures and Data Management (Winter 2009, Winter 2012, Fall 2013), Data Types and Structures (Fall 2008, Spring 2010), Introduction to Database Management (Spring 2009, Winter 2011), Computer Applications in Business (Spring 2009, Fall 2012), Advanced Algorithm Design and Analysis (Fall 2011)

Publications

Articles with a focus on theory are marked with * and have authors' names sorted in alphabetical order.

Refereed Journal Papers:

- [J1]* Spyros Angelopoulos, Christoph Dürr, Shendan Jin, Shahin Kamali and Marc P. Renault. “Online Computation with Untrusted Advice”. *Journal of Computer and System Sciences (JCSS)*, volume 144, pp. 103545, 2024.
- [J2]* Paul Bastide, Marthe Bonamy, Anthony Bonato, Pierre Charbit, Shahin Kamali, Théo Pierron and Mikaël Rabie. “Improved Pyrotechnics: Closer to the Burning Number Conjecture”. *The Electronic Journal of Combinatorics (E-JC)*, volume 30(4), 2023.
- [J3]* Spyros Angelopoulos and Shahin Kamali. “Contract Scheduling with Predictions”. *Journal of Artificial Intelligence Research (JAIR)*, volume 77, pp. 395-426, 2023.
- [J4]* Shahin Kamali. “Compact Representation of Graphs with Bounded Bandwidth or Treedepth”. *Information and Computation*, volume 285, pp. 104867, 2022.
- [J5]* Joan Boyar, Lene M. Favrholdt, Shahin Kamali, Kim S. Larsen. “Online Bin Covering with Advice”. *Algorithmica*, volume 83(3), pp. 795-821, 2021.
- [J6]* Christoph Dürr and Shahin Kamali. “Randomized two-valued bounded delay online buffer management”. *Operations Research Letters (ORL)*, volume 49(2), pp. 246-249, 2021.
- [J7] Md Momin Al Aziz, Shahin Kamali, Noman Mohammed, and Xiaoqian Jiang. “Online Algorithms for Differentially Private Genome-wide Association Studies”. *ACM Transactions on Computing for Healthcare*, volume 2(2), pp. 13:1-13:27, 2021.
- [J8] Saulo dos Santos, Muskan Vinayak, Ruppa K. Thulasiram, Parimala Thulasiraman, and Shahin Kamali. “Validating pairwise transactions on cryptocurrencies: a novel heuristics and network simulation”. *Springer J. Banking and Financial Tech.*, volume 3(1), pp. 71-81, 2019.
- [J9]* Shahin Kamali. “Compact Representation of Graphs of Small Clique-Width”. *Algorithmica*, volume 80(7), pp. 2106-2131, 2018.
- [J10]* Spyros Angelopoulos, Christoph Dürr, Shahin Kamali, Marc Renault, and Adi Rosén. “Online Bin Packing with Advice of Small Size”. *Theory of Computing Systems (TOCS)*, volume 62(8), pp. 2006-2034, 2018.
- [J11] Milad Ghaznavi, Nashid Shahriar, Shahin Kamali, Reaz Ahmed, and Raouf Boutaba. “Distributed Function Chaining”. *IEEE Journal on Selected Areas in Communications (JSAC)*, [Special issue on Emerging Technologies in Software-Driven Communication], volume 35(11), pp. 2479-2489, 2017.
- [J12]* Joan Boyar, Shahin Kamali, Kim S. Larsen, and Alejandro López-Ortiz. “On the List Update Problem with Advice”. *Information and Computation*, volume 253, pp. 411-423, 2017.
- [J13]* Hovhannes A. Harutyunyan and Shahin Kamali. “Efficient Broadcast Trees for Weighted Vertices”. *Discrete Applied Mathematics*, volume 216, pp. 598-608, 2017.
- [J14]* Sushmita Gupta, Shahin Kamali, and Alejandro López-Ortiz. “On Advice Complexity of the k -server Problem under Sparse Metrics”. *Theory of Computing Systems (TOCS)*, volume 59(3), pp. 476-499, 2016.
- [J15]* Joan Boyar, Shahin Kamali, Kim S. Larsen, and Alejandro López-Ortiz. “Online Bin Packing with Advice”. *Algorithmica*, volume 74(1), pp. 507-527, 2016.

- [J16]* Reza Dorrigiv, Robert Fraser, Meng He, Shahin Kamali, Akitoshi Kawamura, Alejandro López-Ortiz. “On Minimum and Maximum-Weight Minimum Spanning Trees with Neighborhoods”. *Theory of Computing Systems (TOCS)*, volume 16(2), pp. 22-250, 2015.
- [J17]* Arash Farzan and Shahin Kamali. “Compact Navigation and Distance Oracles for Graphs with Small Treewidth”. *Algorithmica*, volume 69(1), pp. 92-116, 2014.

Refereed Conference Papers:

- [C1]* Aida Aminian, Shahin Kamali, Seyed Mohammad Seyed Javadi and Sumedha. “On the Complexity of Telephone Broadcasting: From Cacti to Bounded Pathwidth Graphs”. Proceedings of the *52nd EATCS International Colloquium on Automata, Languages, and Programming (ICALP)*, 2024.
- [C2] Ali Zeynali, Shahin Kamali and Mohammad Hajiesmaili. “Robust Learning-Augmented Dictionaries”. Proceedings of the *41st International Conference on Machine Learning (ICML)*, 2024.
- [C3] Adam Lechowicz, Rik Sengupta, Bo Sun, Shahin Kamali and Mohammad Hajiesmaili. “Time Fairness in Online Knapsack Problems”. Proceedings of the *12th International Conference on Learning Representations (ICLR)*, 2024.
- [C4]* Magnus Berg, Shahin Kamali, Katherine Ling and Cooper Sigrist. “Space-Efficient Data Structures for Polyominoes and Bar Graphs”. Proceedings of the *Data Compression Conference (DCC)*, pp. 253-262, 2024.
- [C5]* Magnus Berg and Shahin Kamali. “Online Bin Covering with Frequency Predictions”. Proceedings of the *19th Scandinavian Symposium on Algorithm Theory (SWAT)*, pp. 10:1-10:17, 2024.
- [C6]* Joan Boyar, Shahin Kamali, Kim S. Larsen, Ali Mohammad Lavasani, Yaqiao Li and Denis Pankratov. “On the Online Weighted Non-Crossing Matching Problem ”. Proceedings of the *19th Scandinavian Symposium on Algorithm Theory (SWAT)*, pp. 16:1-16:19, 2024.
- [C7] Saulo dos Santos, Japjeet Singh, Bakhshish Singh Dhillon, Ruppa K. Thulasiram, Cuneyt Akcora, and Shahin Kamali. “Impact of the Lightning Network on Bitcoin Transaction Fees and Network Value (regular paper)”. Proceedings of the *7th International Conference on Blockchain (IEEE Blockchain)*, pp. 148-156, 2024.
- [C8] Saulo dos Santos, Japjeet Singh, Bakhshish Singh Dhillon, Ruppa K. Thulasiram and Shahin Kamali. “Second Layer Network Impact on Bitcoin Mining Fees and Network Value (2-page paper)”. Proceedings of the *6th International Conference on Blockchain and Cryptocurrency (ICBC)*, pp. 464-466, 2024.
- [C9]* Jeffrey Kam, Shahin Kamali, Avery Miller and Naomi Nishimura. “Reconfiguration of Multisets with Applications to Bin Packing”. Proceedings of the *18th International Conference and Workshops on Algorithms and Computation (WALCOM)*, pp. 212-226, 2024.
- [C10]* Stephane Durocher, Shahin Kamali, Myroslav Kryven, Fengyi Liu, Amirhossein Mashghdoust, Avery Miller, Pouria Zamani Nezhad, Ikaro Penha Costa, and Timothy Zapp. “Cops and Robbers on 1-Planar Graphs”. Proceedings of the *31st International Symposium on Graph Drawing and Network Visualization (GD)*, pp. 3-17, 2023.
- [C11]* Spyros Angelopoulos and Shahin Kamali. “Rényi-Ulam Games and Online Computation with Imperfect Advice”. Proceedings of the *48th International Symposium on Mathematical Foundations of Computer Science (MFCS)*, pp. 13:1–13:15, 2023.
- [C12]* Joan Boyar, Lene M. Favrholdt, Shahin Kamali, and Kim S. Larsen. “Online Interval Scheduling with Predictions”. Proceedings of the *18th Algorithms and Data Structures Symposium (WADS)*, pp. 193-207, 2023.

- [C13]* Shahin Kamali and Mohammadmasoud Shabanijou. “Improved Algorithms for Burning Planar Point Sets”. Proceedings of the *35th Canadian Conference on Computational Geometry (CCCG)*, pp. 161-167, 2023.
- [C14]* Stephane Durocher, Shahin Kamali and Pouria Zamani Nezhad . “Online Square Packing with Predictions”. Proceedings of the *35th Canadian Conference on Computational Geometry (CCCG)*, pp. 9-18, 2023.
- [C15]* Spyros Angelopoulos, Shahin Kamali, and Kimia Shadkami. “Online Bin Packing with Predictions”. Proceedings of the *31st International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 4574-4580, 2022.
- [C16]* Spyros Angelopoulos, Shahin Kamali, and Dehou Zhang. “Online Search With Best-Price and Query-Based Predictions”. Proceedings of the *36th AAAI Conference on Artificial Intelligence (AAAI)*, pp. 9652-9660 , 2022.
- [C17]* Shahin Kamali, Pooya Nikbakht, and Arezoo Sajadpour . “A Randomized Algorithm for Non-crossing Matching of Online Points”. Proceedings of the *34th Canadian Conference on Computational Geometry (CCCG)*, 2022.
- [C18]* Shahin Kamali and Pooya Nikbakht. “Online Square Packing with Rotation”. Proceedings of the *34th Canadian Conference on Computational Geometry (CCCG)*, 2022.
- [C19] Saulo dos Santos, Japjeet Singh, Ruppia K. Thulasiram, Shahin Kamali, Louis Sirico, and Lisa Loud. “A New Era of Blockchain-Powered Decentralized Finance (DeFi) - A Review”. Proceedings of the *46th IEEE Annual Computers, Software, and Applications Conference (COMPSAC)*, pp. 1286–1292, 2022.
- [C20]* Shahin Kamali and Helen Xu. “Beyond Worst-case Analysis of Multicore Caching Strategies”. Proceedings of the *SIAM-ACM Symposium on Algorithmic Principles of Computer Systems (APoCS)*, pp. 1-15, 2021.
- [C21]* Spyros Angelopoulos and Shahin Kamali . “Contract Scheduling With Predictions”. Proceedings of the *35th AAAI Conference on Artificial Intelligence (AAAI)*, pp. 11726-11733, 2021.
- [C22]* Shahin Kamali. “Compact Polyominoes (brief announcement)”. Proceedings of the *Data Compression Conference (DCC)*, pp. 346, 2021.
- [C23]* Shahin Kamali and Pooya Nikbakht. “On the Fault-Tolerant Online Bin Packing Problem”. Proceedings of the *6th International Workshop on Algorithmic Aspects of Cloud Computing (ALGO CLOUD)*[part of ALGO], pp. 1-17, 2021.
- [C24]* Shahin Kamali and Helen Xu. “Multicore Paging Algorithms Cannot Be Competitive (brief announcement)”. Proceedings of the *32nd ACM Symposium on Parallelism in Algorithms and Architectures (SPAA)*, pp. 547-549, 2020.
- [C25]* Shahin Kamali. “Compact Representation of Graphs with Small Bandwidth and Treedepth”. Proceedings of the *Data Compression Conference (DCC)*, pp. 233-242, 2020. (Invited to Information and Computation special issue for DCC’20)
- [C26] Saulo dos Santos, Shahin Kamali, and Ruppia K. Thulasiram. “Candidate Set Formation Policy for Mining Pools”. Proceedings of the *4th IEEE International Conference on Blockchain (Blockchain)*, pp. 415-420, 2020.
- [C27]* Shahin Kamali and Pooya Nikbakht. “Cutting Stock with Rotation: Packing Square Items into Square Bins”. Proceedings of the *14th International Conference on Combinatorial Optimization and Applications (COCOA)*, pp. 530-544, 2020.

- [C28]* Prosenjit Bose, Paz Carmi, Stephane Durocher, Shahin Kamali, and Arezoo Sajadpour. “Non-crossing matching of online points”. *Proceedings of the 32nd Canadian Conference on Computational Geometry (CCCG)*, 2020.
- [C29]* Shahin Kamali, Avery Miller, and Kenny Zhang. “Burning Two Worlds: Algorithms for Burning Dense and Tree-like Graphs”. *Proceedings of the 46th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM)*, pp. 113-124, 2020.
- [C30]* Spyros Angelopoulos, Christoph Dürr, Shendan Jin, Shahin Kamali, and Marc P. Renault. “Online Computation with Untrusted Advice”. *Proceedings of the 11th Innovations in Theoretical Computer Science (ITCS)*, pp. 52:1-52:15, 2020.
- [C31] Saulo dos Santos, Chukwuka Chukwuocha, Shahin Kamali, and Ruppia K. Thulasiram. “An Efficient Miner Strategy for Selecting Cryptocurrency Transactions”. *Proceedings of the 3rd International Conference on Blockchain (Blockchain)*, pp. 116-123, 2019.
- [C32]* Arezoo Abdollahi, Neil D. B. Bruce, Shahin Kamali, and Rezaul Karim. “Lossless Image Compression Using List Update Algorithms”. *Proceedings of the 26th International Symposium on String Processing and Information Retrieval (SPIRE)*, pp. 16-34, 2019.
- [C33]* Joan Boyar, Lene M. Favrholdt, Shahin Kamali, and Kim S. Larsen. “Online Bin Covering with Advice”. *Proceedings of the 16th Algorithms and Data Structures Symposium (WADS)*, pp. 225-238, 2019. (Invited to Algorithmica special issue for WADS’19)
- [C34]* Anthony Bonato and Shahin Kamali. “Approximation Algorithms for Graph Burning”. *Proceedings of the 15th conference on Theory and Applications of Models of Computation (TAMC)*, pp. 74-92, 2019.
- [C35] Joseph Mate, Khuzaima Daudjee, and Shahin Kamali. “Robust Multi-tenant Server Consolidation in the Cloud for Data Analytics Workloads”. *Proceedings of the 37th International Conference on Distributed Computing Systems (ICDCS)*, pp. 2111-2118, 2017.
- [C36]* Shahin Kamali. “Compact Navigation Oracles for Graphs with Bounded Cliquewidth”. *Proceedings of the Data Compression Conference (DCC)*, pp. 566-576, 2016. (Invited to Algorithmica special issue for DCC’16)
- [C37]* Shahin Kamali and Alejandro López-Ortiz. “An All-Around Near-Optimal Solution for the Classic Bin Packing Problem”. *Proceedings of the 26th International Symposium on Algorithms and Computation (ISAAC)*, pp. 727-739, 2015.
- [C38]* Shahin Kamali. “Efficient Bin Packing Algorithms for Resource Provisioning in the Cloud”. *Proceedings of the 1st International Workshop on Algorithmic Aspects of Cloud Computing (ALGO CLOUD)*[part of ALGO], pp. 84-98, 2015.
- [C39] Fabio Petroni, Leonardo Querzoni, Khuzaima Daudjee, Shahin Kamali, and Giorgio Iacoboni. “HDRF: Stream-Based Partitioning for Power-Law Graphs”. *Proceedings of the 24th ACM International Conference on Information and Knowledge Management (CIKM)*, pp. 243-252, 2015.
- [C40]* Shahin Kamali, Alejandro López-Ortiz, and Zahed Rahmati. “Online Packing of Equilateral Triangles”. *Proceedings of the 27th Canadian Conference on Computational Geometry (CCCG)*, 2015.
- [C41]* Spyros Angelopoulos, Christoph Dürr, Shahin Kamali, Marc Renault, and Adi Rosén. “Online Bin Packing with Advice of Small Size”. *Proceedings of the 14th Algorithms and Data Structures Symposium (WADS)*, pp. 40-53, 2015.
- [C42] Daniel Nicoara, Shahin Kamali, Khuzaima Daudjee, and Lei Chen. “Hermes: Dynamic Partitioning for Distributed Social Network Graph Databases”. *Proceedings of the 18th International Conference on Extending Database Technology (EDBT)*, pp. 25-36, 2015.

- [C43]* Shahin Kamali and Alejandro López-Ortiz. “Efficient Online Strategies for Renting Servers in the Cloud”. Proceedings of the *41st Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM)*, pp. 277-288, 2015.
- [C44]* Shahin Kamali and Alejandro López-Ortiz. “Almost Online Square Packing”. Proceedings of the *26th Canadian Conference on Computational Geometry (CCCG)*, 2014.
- [C45]* Khuzaima Daudjee, Shahin Kamali, and Alejandro López-Ortiz. “Online Fault-Tolerant Server Consolidation Problem”. Proceedings of the *26th ACM Symposium on Parallelism in Algorithms and Architectures (SPAA)*, pp. 12-21, 2014.
- [C46]* Shahin Kamali and Alejandro López-Ortiz. “Better Compression through Better List Update Algorithms”. Proceedings of the *24th Data Compression Conference (DCC)*, pp. 372-381, 2014.
- [C47]* Joan Boyar, Shahin Kamali, Kim S. Larsen, and Alejandro López-Ortiz. “Online Bin Packing with Advice”. Proceedings of the *31st International Symposium on Theoretical Aspects of Computer Science (STACS)*, pp. 174-186, 2014.
- [C48]* Joan Boyar, Shahin Kamali, Kim S. Larsen, and Alejandro López-Ortiz. “On the List Update Problem with Advice”. Proceedings of the *8th International Conference on Language and Automata Theory and Applications (LATA)*, pp. 210-221, 2014. (Invited to Elsevier Information and Computation special issue for LATA’14)
- [C49]* Shahin Kamali and Alejandro López-Ortiz. “A Survey of Algorithms and Models for List Update”. Proceedings of the *Conference on Space Efficient Data Structures, Streams and Algorithms (in Honor of J. Ian Munro) (IanFest)*, pp. 251-266, 2013.
- [C50]* Sushmita Gupta, Shahin Kamali, and Alejandro López-Ortiz. “On Advice Complexity of the k -server Problem under Sparse Metrics”. Proceedings of the *20th International Colloquium on Structural Information and Communication Complexity (SIROCCO)*, pp. 55-67, 2013.
- [C51] Bairong Lei, Ivan Surya, Shahin Kamali, and Khuzaima Daudjee. “Data Partitioning for Video-on-Demand Services”. Proceedings of the *12th International Symposium on Network Computing and Applications (NCA)*, pp. 49-54, 2013.
- [C52]* Shahin Kamali, Susana Ladra, Alejandro López-Ortiz, and Diego Seco. “Context-Based Algorithms for the List-Update Problem under Alternative Cost Models”. Proceedings of the *23rd Data Compression Conference (DCC)*, pp. 361-370, 2013.
- [C53]* Francisco Claude, Reza Dorrigiv, Shahin Kamali, Alejandro López-Ortiz, Paweł Prałat, Jazmín Romero, Alejandro Salinger, and Diego Seco. “Broadcasting in Conflict Aware Multi-Channel Networks”. Proceedings of the *7th International Workshop on Algorithms and Computation (WALCOM)*, pp. 158-169, 2013.
- [C54]* Reza Dorrigiv, Robert Fraser, Meng He, Shahin Kamali, Akitoshi Kawamura, Alejandro López-Ortiz, and Diego Seco. “On Minimum and Maximum-Weight Minimum Spanning Trees with Neighborhoods”. Proceedings of the *10th Workshop on Approximation and Online Algorithms (WAOA)*, pp. 93-106, 2012. (Invited to Theory of Computing System special issue for WAOA’12)
- [C55] Shahin Kamali, Pedram Ghodsnia, and Khuzaima Daudjee. “Dynamic Data Allocation with Replication in Distributed Systems”. Proceedings of the *30th International Performance Computing and Communications Conference (IPCCC)*, pp. 1-8, 2011.
- [C56]* Arash Farzan and Shahin Kamali. “Compact Navigation and Distance Oracles for Graphs with Small Treewidth”. Proceedings of the *38th International Colloquium on Automata, Languages and Programming (ICALP)*, pp. 268-280, 2011.

- [C57]* Hovhannes A. Harutyunyan and Shahin Kamali. “Optimum Broadcasting in Complete Weighted-Vertex Graphs”. Proceedings of the *36th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM)*, pp. 489-502, 2010.
- [C58]* Hovhannes A. Harutyunyan and Shahin Kamali. “Efficient Broadcasting in Networks with Weighted Nodes”. Proceedings of the *14th International Conference on Parallel and Distributed Systems (ICPADS)*, pp. 879-884, 2008.
- [C59]* Hovhannes A. Harutyunyan and Shahin Kamali. “Broadcasting in Weighted-Vertex Graphs”. Proceedings of the *6th International Symposium on Parallel and Distributed Processing with Applications (ISPA)*, pp. 301-307, 2008.
- [C60]* Hovhannes A. Harutyunyan, Shahin Kamali, and Talin Moradian. “Multi-Shared-Trees Based Multicasting in Mesh-Connected Networks”. Proceedings of the *12th International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA)*, pp. 178-182, 2008.
- [C61]* Hesam Addin TorabiDashti, Nima Aghaeepour, Sahar Asadi, Meysam Bastani, Zahra Delafkar, Fatemeh Disfani, Serveh Ghaderi, Shahin Kamali, Sepideh Pashami, and Alireza Siahpirani. “Dynamic Positioning Based on Voronoi Cells (DPVC)”. Proceedings of the *9th Robot World Cup International Symposium (RoboCup)*, pp. 219-229, 2005.

Manuscripts Submitted:

- [1]* Spyros Angelopoulos, Diogo Arsénio, and Shahin Kamali. “Optimal contract scheduling with query-based predictions”, 2023.

Other Manuscripts:

- [1]* Shahin Kamali and Charles E. Leiserson. “On Competitiveness of Online Algorithms for Dynamic Storage Allocation”, 2023.
- [2]* Anthony Bonato and Shahin Kamali. “An improved bound on the burning number of graphs”, 2021. [arXiv:2110.01087 \[math.CO\]](https://arxiv.org/abs/2110.01087).
- [3]* Stephane Durocher and Shahin Kamali (editors). “Special Issue for Selected Articles from the 30th Canadian Conference on Computational Geometry”, *Computational Geometry: Theory and Applications*, volume 90, 2020.
- [4]* Stephane Durocher and Shahin Kamali (editors). “Proceedings of the 30th Canadian Conference on Computational Geometry”, (*CCCG*), volume 90, 2020.
- [5]* Shahin Kamali, “Online List Update”, *Encyclopedia of Algorithms*, pp. 1448-1451, 2016.
- [6]* Hesam Addin TorabiDashti, Shahin Kamali, and Nima Aghaeepour, “Positioning in Robots Soccer” (book chapter), *Robotic Soccer, I-Tech Education and Publishing*, 2007.

Academic Experience & Visits

- Visiting Researcher, Nov. 2019, April 2024
Laboratoire d'Informatique de Paris 6 (LIP6), Pierre-and-Marie-Curie University (Paris 6)
(Under the support of the CNRS PEPS Fund)
Hosts: Christoph Dürr and Spyros Angelopoulos
- Visiting Researcher, Oct. 2022, Jun. 2023
University of Massachusetts Amherst
Host: Mohammad Hajiesmaili
- Visiting Researcher, March 2015
Carnegie Mellon's School of Computer Science
Hosts: Anupam Gupta
- Visiting Researcher, Sept. 2014 - Dec. 2014
The Research Institute on the Foundations of Computer Science (LIAFA), University Paris Diderot (Paris 7),
(Under the support of the France-Canada Research Fund)
Laboratoire d'Informatique de Paris 6 (LIP6), Pierre-and-Marie-Curie University (Paris 6)
Hosts: Adi Rósen, Christoph Dürr, and Spyros Angelopoulos
- Research Assistant, Sept. 2008 - July 2015
Algorithms and Complexity Research Group (Oct. 2009 - Sept. 2014)
Database Group (Sept. 2008 - Oct. 2009)
School of Computer Science, University of Waterloo
Adviser: Alejandro López-Ortiz
- Visiting Researcher, Marc. 2012 - July 2012
Department of Mathematics and Computer Science (IMADA),
University of Southern Denmark
(Under the support of NSERC Michael Smith award)
Hosts: Joan Boyar, and Kim S. Larsen
- Research Assistant, Jan. 2003 - Aug. 2005
University of Tehran United (UTUtd) Undergraduate Robotic Research Group, Department of
Computer Science, University of Tehran.

Supervision of Highly Qualified Personnel

Postdoctoral Fellows:

- Theodore (Teddy) Mishura, September 2023 – August 2024
(co-supervised by Anthony Bonato and Michelle Delcourt at Toronto Metropolitan University)

Graduate:**York University**

- Natan Melzer, M.Sc., to begin in Sept. 2024
- Parsa Merat, M.Sc., to begin in Sept. 2024
- Aida Aminian, M.Sc., Sept. 2023 – present
- Seyed Mohammad Seyed Javadi, M.Sc., Sept. 2023 – present
- Mohammadamin Sharifi, M.Sc., Sept. 2023 – present
- Wenhao Zhu, M.Sc., Sept. 2023 – present

University of Manitoba

- Saulo dos Santos, Ph.D., May 2018 – May 2024
(co-supervised by Ruppa (Tulsi) Thulasiram)
Thesis: *“Improving Protocols and Miner Strategies for Modern Cryptocurrencies”*
- Pouria ZamaniNezhad, M.Sc., Sept. 2021 - Dec. 2023
(co-supervised with Stephane Durocher)
Thesis: *“Online Square Packing with Predictions”*
- Mohammadmasoud Shabanijou, M.Sc., Sept. 2019 - Feb. 2022
Thesis: *“Improved Algorithms for Burning Graph Families”*
- Dehou Zhang, M.Sc., Sept. 2019 - Dec. 2021
Thesis: *“Online Algorithm with Predictions for Trading Problems”*
- ZahraSadat (Arezo) Sajadpour, M.Sc., Sept. 2019 - Aug. 2021
Thesis: *“Non-crossing Matching of Online Points”*
- Pooya Nikbakht, M.Sc., Jan. 2019 - Aug. 2021
Thesis: *“Applications and Extensions of the Bin Packing Problem”*
- Kimia Shadkami, M.Sc., Jan. 2019 - March 2021
Topic: *“Online Bin Packing with Predictions ”*
Switched to coursework program.
- Sameer Naib, M.Sc., Jan. 2018 - Jan. 2020
Thesis: *“Alternative Settings and Models of the Certain News Network Problem”*

Undergraduate:**York University**

- Sumedha, Summer 2024
Recipient of Lasonde Undergraduate Research Award (LURA)
Topic: *“Telephone Broadcasting in Cactus Graphs”*
Registered in EECS 4080, Winter 2025 - Computer Science Project Course
Topic: *“Broadcasting in Weighted-vertex Complete Bipartite Graphs”*
- Saba Yazdani, Summer 2024
Recipient of Lasonde Undergraduate Research Award (LURA)
Topic: *“Burning Graphs of Bounded Treelength”*
Registered in EECS 4070, Winter 2025 - Directed reading course on *“Graph Algorithms: Information Dissemination, from Broadcasting to Graph Burning”*

- [Ethan Fifle](#), Fall 2023, Winter 2024
Registered in EECS 4088 - Computer Science Capstone Project
Topic: *“Anthropometric Measurement Extraction from 3D Point Clouds and 2D Images”*
- [Huseyn Akhundov](#), Winter 2024
Registered in EECS 4080 - EECS Project Course
Topic: *“Software Architecture for Marketplace SaaS Platforms - A study of the Nobl Kids platform”*
- [Katherine Ling](#), Summer 2023, Fall 2023
Recipient of NSERC Undergraduate Student Research Award (USRA)
Registered in EECS 4080 - Computer Science Project
Recipient of the Lassonde Faculty of Engineering Research Medal
Topic: *“Space-Efficient Data Structures for Polyominoes and Bar Graphs”*
- [Parsa Merat](#), Summer 2023
Recipient of Lassonde Undergraduate Research Award (LURA)
Topic: *“Weighted Interval Scheduling: Power of Randomization and Predictions”*
- [Hyewon Jeon](#), Summer 2023
Recipient of Lassonde Undergraduate Research Award (LURA)
Topic: *“Geometric Graph Burning: A Model for Information Distribution”*
- [Wenhao Zhu](#), Summer 2023
Recipient of Lassonde Undergraduate Research Award (LURA)
Topic: *“Orthogonal Certain News Network (CNN) Problem”*

University of Manitoba

- [Jay Khakhariya](#), Summer 2020
Recipient of Faculty of Science Undergraduate Student Research Award (USRA)
Topic: *Improved Approximation Algorithms for Burning Graph Families*
- [Meet Vaghasiya](#), Summer 2020 (collaboration with Jay Khakhariya)
Topic: *Improved Approximation Algorithms for Burning Graph Families*
- [Diarra Mbacke](#) (Honours Project), Fall 2019
Topic: *“Algorithms For Burning Cactus and Necklace Graphs”*
- [Sean Egan](#) (Honours Project) and [Katharine King](#), 2018
Topic: *“k-elevator Problem: Online Algorithms for Elevator Coordination”*

Thesis committee membership:

- **Present:** Kaari Landry, PhD, CS (since 2020), Shalom Asbell, MSc, CS (since 2023), Reza Abbaszadeh Darban (since February 2025).
- **Past:** Benjamin Fraser, PhD Math (2024), MohammadMoein Shafi, MSc, ITech (2024), Fares Hamouda, MSc, CS (June 2023 - Aug. 2024), Sepideh Hajihisseinkhani, MSc, ITech (2024), Zhuoran Sun, MSc, CS (2021 - 2023), Alireza Torabian, MSc, CS (2023), Timothy Zapp, MSc, CS (2021 - 2023), Alex Penner, MSc, Math (2020 - 2021), Jason Mai, MSc, CS (2020-2021), Mahya Maftouni, MSc, CS (2020 - 2022), Tadeballi Sarada Kiranmayee, MSc, CS (2020 - 2021), Yongzhen Ren, MSc, CS (2019 - 2021), Roya Lotfi, MSc, CS (2020 - 2020), Md Yeakub Hassan, MSc, CS (2019 - 2020), Khatereh Davoudi, MSc, CS (2019 - 2020), Manmohit Singh, MSc, CS (2019 - 2020), Aarsal Asif, MSc, CS (2019 - 2019), Arezoo Abdollahi, MSc, CS (2019 - 2019), Mohammed Moosa Naqvi, MSc, CS (2018 - 2019).

Leadership & Communication

Selected workshops & courses

- Workshop on *Accessing and Responding to Accommodations*, York University, Oct. 2022
- Workshop on *Understanding and Accessing Family Status Accommodations*, York University, Oct. 2022
- Rights, Equity, Diversity, Decolonization and Inclusion (REDDI) Mini-Series Certificate upon completion of *Preventing Sex and Gender Harassment and Discrimination*, York University, Oct. 2023
- Workshop on *Challenging Biases in Decision Making and Approaches to Difference*, York University, Oct. 2022
- Workshop on *Creating and Maintaining Positive Space*, York University, Oct. 2022
- Certificate on *Workplace Harassment and Violence Prevention for Faculty and Staff*, York University, Oct. 2022
- Workshop on *Addressing and Responding to Sexual Harassment and Discrimination*, York University, Oct. 2022
- Workshop on *Responding to students' mental health distress*, offered by the Centre for Advancement of Teaching and Learning, University of Manitoba, Feb. 2020
- Faculty of Science Improve workshop (offered by Jeri and Roger Dube), Sept. 2019
- Workshop on *Leadership Skills for Engineering and Science Faculty* (audited)
MIT Professional Education (offered by Charles E. Leiserson and Chuck McVinnay), June 2016
- Postdoc Leadership Workshop, MIT Department of Electrical Engineering and Computer Science, Jan. 2016
- Introduction to StandUp class, ImprovBoston, February - March 2017
- Communication lessons by Dana Jay Bein, sponsored by Charles E. Leiserson, September 2016 - January 2017

Press

- *These Researchers Make Stand-Up Part of the Routine*, The Chronicle of Higher Education (2019)
- *Creating postdoc connections*, The Department of Electrical Engineering and Computer Science pilots new ways to build leadership and teamwork skills for its postdocs, MIT News (2016)

Professional Membership

- Japan Society for the Promotion of Science Researchers Network (JSPS, 2015 - present)
- OpenCilk Advisory Board (OpenCilk, 2020 - present)

Service

Conference and workshop Organization

- Cochair and co-organizer of the workshop on Learning-augmented Algorithms: Theory and Applications (LATA 2025) (a SIGMETRICS'25 workshop).

- Co-organizer of The 19th Algorithms and Data Structures Symposium (WADS 2025) and the 37th Canadian Conference on Computational Geometry (CCCG 2025) (CCCG/WADS 2025)
Co-chair of the Program Committee of the 37th Canadian Conference on Computational Geometry (CCCG 2025) (CCCG/WADS 2025) (York University - Keele Campus).
- Cochair and co-organizer of the workshop on Learning-augmented Algorithms: Theory and Applications (LATA 2023) (a SIGMETRICS'23 workshop).
- Cochair and co-organizer of the 5th Iranian Conference on Computation Geometry (ICCG 2022).
- Cochair and co-organizer of the 30th Canadian Conference on Computation Geometry (CCCG 2018).

Program Committee Membership

- The 35th Canadian Conference on Computation Geometry (CCCG 2024).
- The 15th IEEE International Workshop on Cyberspace Security and Artificial Intelligence (IEEE CAI 2023).
- The 6th IEEE Conference on Dependable and Secure Computing (IEEE DSC 2023)
- The 35th Canadian Conference on Computation Geometry (CCCG 2023).
- The 14th IEEE International Workshop on Cyberspace Security and Artificial Intelligence (IEEE CAI 2022).
- Workshop on Models and Algorithms for Planning and Scheduling (MAPSP 2022).
- The 5th IEEE International Conference on Blockchain (IEEE Blockchain 2022).
- The 5th IEEE Conference on Dependable and Secure Computing (IEEE DSC 2022).
- The 34th Canadian Conference on Computation Geometry (CCCG 2022).
- The 17th Algorithms and Data Structures Symposium (WADS), 2021.
- The 4th IEEE International Conference on Blockchain (Blockchain 2021).
- The 13th International Workshop on Cyberspace Security and Artificial Intelligence (CAI 2021).
- The 4th Iranian Conference on Computational Geometry (ICCG), 2021.
- World Wide Web (WWW) PhD Symposium, 2018.
- 1st Iranian Conference on Computational Geometry (ICCG), 2018.
- World Wide Web (WWW) PhD Symposium, 2017.
- The International Conference on Soft Computing and its Engineering (IcSoftComp), 2017.

York University

- Member of the File Preparation Committee for promotion to the rank of Professor, Department of Electrical Engineering and Computer Science, Lassonde School of Engineering, Sept. 2024 - April 2025.
- Member of the File Preparation Committee for promotion to the rank of Professor, School of Information Technology, Faculty of Liberal Arts & Professional Studies, Jan. 2025 - April 2025.
- Lassonde Ethics Review Committee (LERC),
PARR representative and chair, June 2024 - Aug. 2025
- EECS Awards Committee (Faculty)
Chair, Sept. 2023 - Present

- Lassonde Learning, Curriculum & Students (GLCS) Committee
EECS Representative, Sept. 2023 - Aug. 2025
- Lassonde Summer Undergraduate Research Conference Planning Committee
Jun. 2023 - Aug. 2023
Jun. 2024 - Aug. 2024
- Faculty of Graduate Studies (FGS) Graduate Awards Adjudication Committee (NSERC CGSM/OGS Masters/PhD Adjudication), Oct. 2023 - present
- Lassonde Planning, Academic Resources & Research (PARR) Committee
EECS Representative, Jan. 2023 - present
DEDI champion, Sept. 2023 - Aug. 2025
- Lassonde Graduate Learning, Curriculum & Students (GLCS) Committee
EECS Faculty at large, Nov. 2022 - Jun. 2023
- EECS Ad hoc Committee on First and Second Year Programming Course Sequence
Sept. 2022 - present

University of Manitoba

- Department of Computer Science Awards Committee, 2019 - 2022
- Department of Computer Science Undergraduate Curriculum Committee, 2019 - 2022
- Faculty of Science Promotion Committee, 2019
- Department of Computer Science Graduate Student Committee, 2017 - 2021

Institutional Review

Panel Member and Chair, Program Evaluation Committee for the Master of Professional Studies (MPS) in Informatics, Northeastern University Toronto (under PEQAB review), 2025.

Grant Review

MITACS (2020, 2021).

Journal Review

J.Sched.'25, Inf. Comput.'25, JCSS'25, ACM ToCT'24, TOCS'24, J.Sched.'24, CDM'24, TOCS'23, Inf. Comput.'23, Theory Comput.'23, DAM'23, JCSS'23, Inf. Comput'23, Algorithmica'22, CDM'22, CDM'21, Algorithmica'21, IPL'21, TCS'21, TKDE'20, TCS'19, Computing Surveys'17, JCSS'15, JCO'15, IPL'14, DAM'14, JDA'14, TOCS'13
Mathematical Reviews, 2018 - 2021

Conference Review

MFCS'25, ICALP'25, ICML'25, WAOA'24, ESA'23, ESA'22, MFCS'22, STACS'21, FSTTCS'21, ISAAC'21, IWOC'21, DCC'21, ICALP'20, CCCG'20, FUN'20, ICCG'20, ISAAC'20, TTCS'20, STACS'20, WALCOM'20, SODA'19, DISC'19, ICALP'19, ICCKE'17, SPAA'17, SWAT'16, ICDE'16, IPDPS'16, ESA'15, CCCG'15, PODC'15, SPAA'15, SOCG'15, ICDE'15, SIGMOD'14, WAOA'14, ALENEX'13, EuroCG'13

Miscellaneous Service

- Member of the Postdoc Visiting Committee, MIT Electrical Engineering & Computer Science (EECS) department, 2016-17.

- Organizer of *Algorithms and Complexity (A&C)* seminars, School of Computer Science, University of Waterloo, Aug. 2013 - Sept. 2014.
- Member of the local organizing committee for the conference on Space Efficient Data Structures, Streams and Algorithms (*IanFest 2013*).
- Member of the local organizing committee for the 25th Canadian Conference on Computational Geometry (*CCCG 2013*).

Talks

- *Robust Learning-Augmented Dictionaries*
Paris LIP6 Seminar, April 2024.
- *Online Interval Scheduling with Predictions*
The 18th Algorithms and Data Structures Symposium (*WADS*), Aug. 2023.
- *Improved Algorithms for Burning Planar Point Sets*
The 35th Canadian Conference on Computational Geometry (*CCCG*), Aug. 2023.
- *A Review of Online Bin Packing with Advice and Prediction*
University of Massachusetts Amherst, Oct. 2022.
- *Graph Burning (Summer School)*
Graph Searching in Canada (*GRASCan*) Summer School, Aug. 2022.
- *Online Bin Packing with Predictions.*
International Joint Conference on Artificial Intelligence (*IJCAI*), Aug. 2022.
- *Online Algorithms: A Journey from Theory to Practice.*
Paris LIP6 Seminar, May 2022.
- *A Review of the Graph Burning Problem.*
The 10th Workshop on GRaph Searching, Theory and Applications *GRASTA*, May 2022.
- *Online Search with Best-Price and Query-Based Predictions.*
AAAI Conference on Artificial Intelligence (*AAAI*), Feb. 2022.
- *Online Algorithms with Predictions.*
MIT Supertech seminar, Nov. 2021.
- *Algorithms for Burning Graph Families.*
Combinatorics Seminar, University of Manitoba, Dept. of Mathematics, Oct. 2021,
Graph Searching in Canada (*GRASCan*), Aug. 2021.
- *Online Bin Packing with Predictions.*
Bin Packing Seminar Series, Apr. 2021.
- *Advice in the Context of Some Geometric Problems.*
Online Algorithms with Advice and Related Models (*OLAWA@MFCS*), Aug. 2020.
- *Lossless Image Compression Using List Update Algorithms.*
International Symposium on String Processing and Information Retrieval (*SPIRE*), Oct. 2019.
- *On the Complexity of Burning and Broadcasting Problems.*
Graph Searching in Canada (*GRASCan*), Aug. 2019.

- *Online Bin Covering with Advice.*
Algorithms and Data Structures Symposium (WADS), Aug. 2019.
- *Approximation Algorithms for Burning Graphs.*
Canadian Mathematical Society Meeting in Regina, (CMS Summer Meeting), Jun. 2019.
- *A Review of Telephone Broadcast Problem.*
University of Manitoba, Dept. of Mathematics Combinatorics Seminar, Nov. 2018.
- *Online Bin Covering with Advice.*
Modern OnLine algorithms (A satellite workshop of ICALP 2018) (MOLI), Jul. 2018.
- *Online k -server Problem: Recent Developments and Applications.*
University of Manitoba, Dept. of Mathematics Combinatorics Seminar, Dec. 2017.
- *Compact Navigation Oracles for Graphs with Bounded Clique-Width.*
Data Compression Conference (DCC), Mar. 2016.
- *List Update Problem and Compression: a Review.*
MIT SuperTech Seminar, Nov. 2016
- *Online Bin Packing: Recent Developments and Applications.*
MIT SuperTech Seminar, Oct. 2016
- *All-Around Near-Optimal Solutions for the Online Bin Packing Problem.*
International Symposium on Algorithms and Computation (ISAAC), Dec. 2015.
- *Practical Applications of Online Bin Packing*
Workshop on New Techniques in Online Algorithms (ANR-NeTOC) , Nov. 2015.
- *Efficient Bin Packing Algorithms for Resource Provisioning in the Cloud.*
International Workshop on Algorithmic Aspects of Cloud Computing (ALGO CLOUD) at ALGO, Sept. 2015.
- *Online Packing of Equilateral Triangles.*
Canadian Conference on Computational Geometry (CCCG), Aug. 2015.
- *Online Bin Packing with Advice of Small Size.*
Algorithms and Data Structures Symposium (WADS), Aug. 2015.
- *Hermes: Dynamic Partitioning for Distributed Social Network Graph Databases.*
International Conference on Extending Database Technology (EDBT), Mar. 2015.
- *Online Bin Packing Problem: Alternative Analysis Methods and New Applications.*
ACO seminar, Carnegie Mellon University, Mar. 2015.
- *Efficient Online Strategies for Renting Servers in the Cloud.*
International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM), Jan. 2015.
- *Online Bin Packing Algorithms for Resource Allocation in the Cloud.*
Laboratoire d'Informatique Algorithmique: Fondements et Applications (LIAFA), Université Paris Diderot - Paris 7, Oct. 2014.
- *Online Bin Packing Problem: Recent Developments and Applications.*
Laboratoire d'Informatique de Paris 6 (LIP6), Pierre-and-Marie-Curie University, Oct. 2014.

- *Almost Online Square Packing.*
Canadian Conference on Computational Geometry (CCCG), Aug. 2014.
- *Online Fault-Tolerant Server Consolidation Problem.*
ACM Symposium on Parallelism in Algorithms and Architectures (SPAA), Jun. 2014.
- *Better Compression through Better List Update Algorithms.*
Data Compression Conference (DCC), Apr. 2014.
- *Online Bin Packing with Advice.*
International Symposium on Theoretical Aspects of Computer Science (STACS), Mar. 2014.
- *On the List Update Problem with Advice.*
International Conference on Language and Automata Theory and Applications (LATA), Mar. 2014.
- *Online Bin Packing Problem: Recent Developments and Advice Complexity.*
Algorithms and Complexity Seminar, University of Waterloo, Aug. 2013.
- *Data Partitioning for Video-on-Demand Services.*
International Symposium on Network Computing and Applications (NCA), Aug. 2013.
- *k-Server Problem: Recent Developments and Advice Complexity.*
Algorithms and Complexity Seminar, University of Waterloo, Jul. 2013.
- *On Advice Complexity of the k-server Problem under Sparse Metrics.*
International Colloquium on Structural Information and Communication Complexity (SIROCCO), Jul. 2013.
- *Broadcasting in Conflict Aware Multi-Channel Networks.*
International Workshop on Algorithms and Computation (WALCOM), Feb. 2013.
- *Compact Navigation and Distance Oracles for Graphs with Small Treewidth.*
International Colloquium on Automata, Languages and Programming (ICALP), Jul. 2011.
- *Dynamic Data Allocation with Replication in Distributed Systems.*
International Performance Computing and Communications Conference (IPCCC), Nov. 2011.

Last updated on April 28, 2025.