Curriculum Vitae: Anna LUBIW

School of Computer Science
University of Waterloo
Waterloo, ON, Canada, N2L 3G1
`alubiw@uwaterloo.ca`
`http://www.cs.uwaterloo.ca/~alubiw/`

September 2021

Citizenship: Canada

Areas: computational geometry, graph drawing, graph algorithms

Degrees

- 1986, Ph.D., Department of Computer Science, University of Toronto, Toronto, Ontario. Thesis: *Orderings and Some Combinatorial Optimization Problems with Geometric Applications*. Supervisors: Rudolf Mathon and Stephen Cook; thesis work done with Jack Edmonds.

- 1982, M.Math, Department of Combinatorics and Optimization, University of Waterloo, Waterloo, Ontario. Thesis: Γ-*Free Matrices*. Supervisor: Jack Edmonds.

- 1979, B.Sc., Math and Computer Science, University of Toronto, Toronto, Ontario.

Employment

- July 2004—present, Professor, School of Computer Science, University of Waterloo, Waterloo, Ontario. (3/4 time)

- August 2009–June 2010, Visiting Researcher, MIT Computer Science and Artificial Intelligence Laboratory.

- July 1993—June 2004, Associate Professor, Department of Computer Science, University of Waterloo, Waterloo, Ontario. (3/4 time from Jan. 1995. Maternity leave Sept.—Dec. 1994 and Jan.—June 1997.)

- August 2001–July 2002, Visiting Researcher, University of Arizona, Department of Computer Science.

- January 1994–April 1994, Visiting Researcher, DIMACS.

- September 1993–December 1993, Visiting Researcher, University of Wisconsin, Computer Sciences Department.

- August 1987—June 1993, Assistant Professor, Department of Computer Science, University of Waterloo, Waterloo, Ontario.

- Sept. 1986—July 1987, NSERC (Natural Sciences and Engineering Research Council of Canada) Postdoctoral Fellowship, Mathematical Institute of the Hungarian Academy of Sciences, Budapest, Hungary.

- Jan. 1986—Aug. 1986, NSERC Postdoctoral Fellowship, Department of Computer Science, University of California, Berkeley, CA.

- June 1979—Aug. 1980, employee in computer aided design of integrated circuits, Bell Northern Research, Ottawa, Ontario.

Awards

- University of Waterloo Outstanding Performance Awards, 2012, 2014, 2017, 2020.

- Ross and Muriel Cheriton Faculty Fellow, May 2014—April 2017.

- ACM Distinguished Scientist, 2009.

- NSERC PostDoctoral Fellowship, 1986–1987.

Publications (∗ indicates that I had a supervisory/advisory role)

Published in Refereed Journals

[66] Therese Biedl, Ahmad Biniaz∗, and Anna Lubiw. Minimum ply covering of points with disks and squares. *Computational Geometry* 94 (2021), 101712.

[65] Hugo A Akitaya, Vida Dujmović, David Eppstein, Thomas C Hull, Kshitij Jain∗, and Anna Lubiw. Face flips in origami tessellations. *Journal of Computational Geometry* 11.1 (2020).

[64] Nadia M Benbernou, Erik D Demaine, Martin L Demaine, and Anna Lubiw. Universal hinge patterns for folding strips efficiently into any grid polyhedron. *Computational Geometry* 89 (2020), 101633.

[63] Sergio Cabello, Kshitij Jain*, Anna Lubiw, and Debajyoti Mondal. Minimum shared-power edge cut. *Networks* 75.3 (2020), 321–333.

[62] Anna Lubiw, Daniela Maftuleac, and Megan Owen*. Shortest paths and convex hulls in 2D complexes with non-positive curvature. *Computational Geometry* 89 (2020), 101626.

[61] Anna Lubiw and Debajyoti Mondal*. On compatible triangulations with a minimum number of Steiner points. *Theoretical Computer Science* 835 (2020), 97–107.

[60] Fidel Barrera-Cruz*, Penny Haxell, and Anna Lubiw. Morphing Schnyder Drawings of Planar Triangulations. *Discrete & Computational Geometry* 61.1 (2019), 161–184. DOI: `10.1007/s00454-018-0018-9`.

[59] Therese Biedl, Ahmad Biniaz*, Robert Cummings, Anna Lubiw, Florin Manea, Dirk Nowotka, and Jeffrey Shallit. Rollercoasters: Long Sequences without Short Runs. *SIAM Journal on Discrete Mathematics* 33.2 (2019), 845–861. DOI: `10.1137/18M1192226`.

[58] Felice De Luca, Md Iqbal Hossain, Stephen Kobourov, Anna Lubiw, and Debajyoti Mondal*. Recognition and drawing of stick graphs. *Theoretical Computer Science* 796 (2019), 22–33.

[57] Linda Kleist, Boris Klemz, Anna Lubiw, Lena Schlipf, Frank Staals, and Darren Strash. Convexity-increasing morphs of planar graphs. *Computational Geometry Theory and Applications* (2019). Special issue for EuroCG 2018. DOI: `10.1016/j.comgeo.2019.07.007`.

[56] Anna Lubiw, Zuzana Masárová*, and Uli Wagner. A proof of the orbit conjecture for flipping edge-labelled triangulations. *Discrete & Computational Geometry* 61.4 (2019), 880–898. DOI: `10.1007/s00454-018-0035-8`.

[55] Zachary Abel, Erik D. Demaine, Martin L. Demaine, David Eppstein, Anna Lubiw, and Ryuhei Uehara. Flat foldings of plane graphs with prescribed angles and edge lengths. *JoCG* 9.1 (2018), 74–93. URL: `http://jocg.org/index.php/jocg/article/view/191`.

[54] Prosenjit Bose, Anna Lubiw, Vinayak Pathak*, and Sander Verdonschot. Flipping edge-labelled triangulations. *Comput. Geom.* 68 (2018), 309–326. DOI: `10.1016/j.comgeo.2017.06.005`.

[53] David Eppstein, Philipp Kindermann, Stephen G. Kobourov, Giuseppe Liotta, Anna Lubiw, Aude Maignan, Debajyoti Mondal*, Hamideh Vosoughpour*, Sue Whitesides, and Stephen K. Wismath. On the Planar Split Thickness of Graphs. *Algorithmica* 80.3 (2018), 977–994. DOI: `10.1007/s00453-017-0328-y`.

[52] Soroush Alamdari*, Patrizio Angelini, Fidel Barrera-Cruz*, Timothy M. Chan, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Penny Haxell, Anna Lubiw, Maurizio Patrignani, Vincenzo Roselli*, Sahil Singla*, and Bryan T. Wilkinson*. How to Morph Planar Graph Drawings. *SIAM J. Comput.* 46.2 (2017), 824–852. DOI: `10.1137/16M1069171`.

[51] Nadia M. Benbernou, Erik D. Demaine, Martin L. Demaine, and Anna Lubiw. Universal Hinge Patterns for Programmable Matter. *Active Matter* (2017), 103.

[50] Anna Lubiw, Jack Snoeyink, and Hamideh Vosoughpour*. Visibility Graphs, Dismantlability, and the Cops and Robbers Game. *Computational Geometry: Theory and Applications* 66 (2017), 14–27. DOI: `10.1016/j.comgeo.2017.07.001`.

[49] Erik D. Demaine, David Eppstein, Adam Hesterberg, Hiro Ito, Anna Lubiw, Ryuhei Uehara, and Yushi Uno. Folding a Paper Strip to Minimize Thickness. *J. Discrete Algorithms* 36 (2016), 18–26. DOI: `10.1016/j.jda.2015.09.003`.

[48] Stephen Kiazyk* and Anna Lubiw. Star unfolding from a geodesic curve. *Discrete & Computational Geometry* (2016). invited to a special issue of best papers from the Symposium on Computational Geometry, 1–19. DOI: `10.1007/s00454-016-9795-1`.

[47] Timothy M. Chan, Fabrizio Frati, Carsten Gutwenger, Anna Lubiw, Petra Mutzel, and Marcus Schaefer. Drawing Partially Embedded and Simultaneously Planar Graphs. *J. Graph Algorithms and Applications* 19.2 (2015), 681–706. DOI: `10.7155/jgaa.00375`.

[46] Anna Lubiw and Vinayak Pathak*. Flip distance between two triangulations of a point set is NP-complete. *Computational Geometry* 49 (2015), 17–23. DOI: `10.1016/j.comgeo.2014.11.001`.

[45] Oswin Aichholzer, Greg Aloupis, Erik D. Demaine, Martin L. Demaine, Sándor P. Fekete, Michael Hoffmann, Anna Lubiw, Jack Snoeyink, and Andrew Winslow. Covering Folded Shapes. *Journal of Computational Geometry* 5.1 (2014), 150–167. URL: `http://www.jocg.org/index.php/jocg/article/view/160`.

[44] Mustaq Ahmed* and Anna Lubiw. Shortest paths avoiding forbidden subpaths. *Networks* 61.4 (2013), 322–334. DOI: `10.1002/net.21490`.

[43] Brad Ballinger, Nadia Benbernou, Prosenjit Bose, Mirela Damian, Erik Demaine, Vida Dujmović, Robin Flatland, Ferran Hurtado, John Iacono, Anna Lubiw, Pat Morin, Vera Sacristán, Diane Souvaine, and Ryuhei Uehara. Coverage with k-transmitters in the presence of obstacles. *Journal of Combinatorial Optimization* 25.2 (2013), 208–233. DOI: `10.1007/s10878-012-9475-x`.

[42] Gill Barequet, Nadia Benbernou, David Charlton, Erik D. Demaine, Martin L. Demaine, Mashhood Ishaque, Anna Lubiw, André Schulz, Diane L. Souvaine, Godfried T. Toussaint, and Andrew Winslow. Bounded-degree polyhedronization of point sets. *Comput. Geom.* 46.2 (2013), 148–153. DOI: `10.1016/j.comgeo.2012.02.008`.

[41] Therese C. Biedl, Anna Lubiw, Mark Petrick*, and Michael J. Spriggs*. Morphing orthogonal planar graph drawings. *ACM Transactions on Algorithms* 9.4 (2013), 29. DOI: `10.1145/2500118`.

[40] Erik D. Demaine, Martin L. Demaine, Jin ichi Itoh, Anna Lubiw, Chie Nara, and Joseph O'Rourke. Refold rigidity of convex polyhedra. *Comput. Geom.* 46.8 (2013), 979–989. DOI: `10.1016/j.comgeo.2013.05.002`.

[39] Bernhard Haeupler, Krishnam Raju Jampani*, and Anna Lubiw. Testing Simultaneous Planarity when the Common Graph is 2-Connected. *J. Graph Algorithms Appl.* 17.3 (2013), 147–171. DOI: `10.7155/jgaa.00289`.

[38] Giuseppe Di Battista, Ethan Kim, Giuseppe Liotta, Anna Lubiw, and Sue Whitesides. The Shape of Orthogonal Cycles in Three Dimensions. *Discrete & Computational Geometry* 47.3 (2012), 461–491. DOI: `10.1007/s00454-011-9381-5`.

[37] Krishnam Raju Jampani* and Anna Lubiw. The Simultaneous Representation Problem for Chordal, Comparability and Permutation Graphs. *Journal of Graph Algorithms and Applications* 16.2 (2012), 283–315. URL: `http://www.cs.brown.edu/sites/jgaa/accepted/2012/JampaniLubiw2012.16.2.pdf`.

[36] Mustaq Ahmed* and Anna Lubiw. Shortest Descending Paths: towards an Exact Algorithm. *Int. J. Comput. Geometry Appl.* 21.4 (2011), 431–466. DOI: `10.1142/S0218195911003755`.

[35] Stephane Durocher, Krishnam Raju Jampani*, Anna Lubiw, and Lata Narayanan. Modelling gateway placement in wireless networks: Geometric k-centres of unit disc graphs. *Comput. Geom.* 44.5 (2011), 286–302. DOI: `10.1016/j.comgeo.2010.12.003`.

[34] Anna Lubiw and Mark Petrick*. Morphing Planar Graph Drawings with Bent Edges. *J. Graph Algorithms Appl.* 15.2 (2011), 205–227. URL: `http://jgaa.info/accepted/2011/LubiwPetrick2011.15.2.pdf`.

[33] Mustaq Ahmed*, Sandip Das, Sachin Lodha, Anna Lubiw, Anil Maheshwari, and Sasanka Roy. Approximation algorithms for shortest descending paths in terrains. *J. of Discrete Algorithms* 8.2 (2010), 214–230. DOI: `10.1016/j.jda.2009.05.001`. URL: `http://arxiv.org/abs/0805.1401`.

[32] Peter Brass, Ferran Hurtado, Benjamin J. Lafreniere*, and Anna Lubiw. A Lower Bound on the Area of a 3-Coloured Disk Packing. *Int. J. Comput. Geometry Appl.* 20.3 (2010), 341–360. DOI: `10.1142/S0218195910003335`. URL: `http://arxiv.org/abs/0804.1173`.

[31] Mustaq Ahmed* and Anna Lubiw. Shortest descending paths through given faces. *Comput. Geom. Theory Appl.* 42.5 (2009), 464–470. DOI: `10.1016/j.comgeo.2007.10.011`.

[30] Therese C. Biedl, Anna Lubiw, and Michael J. Spriggs*. Morphing polyhedra with parallel faces: Counterexamples. *Comput. Geom. Theory Appl.* 42.5 (2009), 395–402. DOI: 10.1016/j.comgeo.2008.09.006.

[29] Masud Hasan* and Anna Lubiw. Equiprojective polyhedra. *Comput. Geom. Theory Appl.* 40.2 (2008), 148–155. DOI: 10.1016/j.comgeo.2007.05.002.

[28] Peter Brass, Eowyn Cenek*, Christian A. Duncan, Alon Efrat, Cesim Erten*, Dan P. Ismailescu, Stephen G. Kobourov, Anna Lubiw, and Joseph S. B. Mitchell. On simultaneous planar graph embeddings. *Comput. Geom. Theory Appl.* 36.2 (2007), 117–130. DOI: 10.1016/j.comgeo.2006.05.006.

[27] Alon Efrat, Stephen G. Kobourov, and Anna Lubiw. Computing homotopic shortest paths efficiently. *Comput. Geom. Theory Appl.* 35.3 (2006), 162–172. DOI: 10.1016/j.comgeo.2006.03.003.

[26] Therese C. Biedl, Anna Lubiw, and Julie Sun*. When can a net fold to a polyhedron? *Comput. Geom. Theory Appl.* 31.3 (2005), 207–218. DOI: 10.1016/j.comgeo.2004.12.004.

[25] Claudia Iturriaga* and Anna Lubiw. Elastic labels around the perimeter of a map. *J. Algorithms* 47.1 (2003), 14–39. DOI: 10.1016/S0196-6774(03)00004-X.

[24] Giuseppe Di Battista, Giuseppe Liotta, Anna Lubiw, and Sue Whitesides. Embedding problems for paths with direction constrained edges. *Theor. Comput. Sci.* 289.2 (2002), 897–917. DOI: 10.1016/S0304-3975(01)00408-X.

[23] Therese C. Biedl, Erik D. Demaine*, Martin L. Demaine, Sylvain Lazard, Anna Lubiw, Joseph O'Rourke, Steve Robbins, Ileana Streinu, Godfried T. Toussaint, and Sue Whitesides. A note on reconfiguring tree linkages: trees can lock. *Discrete Applied Mathematics* 117.1-3 (2002), 293–297. DOI: 10.1016/S0166-218X(01)00229-3.

[22] Prosenjit Bose*, Anna Lubiw, and J. Ian Munro. Efficient visibility queries in simple polygons. *Comput. Geom. Theory Appl.* 23.3 (2002), 313–335. DOI: 10.1016/S0925-7721(01)00070-0.

[21] Erik D. Demaine*, Martin L. Demaine, Anna Lubiw, and Joseph O'Rourke. Enumerating Foldings and Unfoldings Between Polygons and Polytopes. *Graphs and Combinatorics* 18.1 (2002), 93–104. DOI: 10.1007/s003730200005.

[20] Therese C. Biedl, Prosenjit Bose, Erik D. Demaine*, and Anna Lubiw. Efficient Algorithms for Petersen's Matching Theorem. *J. Algorithms* 38.1 (2001), 110–134. DOI: 10.1006/jagm.2000.1132.

[19] Therese C. Biedl, Erik D. Demaine*, Martin L. Demaine, Sylvain Lazard, Anna Lubiw, Joseph O'Rourke, Mark H. Overmars, Steve Robbins, Ileana Streinu, Godfried T. Toussaint, and Sue Whitesides. Locked and Unlocked Polygonal Chains in Three Dimensions. *Discrete & Computational Geometry* 26.3 (2001), 269–281. DOI: 10.1007/s00454-001-0038-7.

[18] Prosenjit Bose, Hazel Everett, Sándor P. Fekete, Michael E. Houle, Anna Lubiw, Henk Meijer, Kathleen Romanik, Günter Rote, Thomas C. Shermer, Sue Whitesides, and Christian Zelle. A Visibility Representation for Graphs in Three Dimensions. *J. Graph Algorithms Appl.* 2.2 (1998). URL: http://www.cs.brown.edu/publications/jgaa/accepted/98/Bose+a4-98.2.3.pdf.

[17] Prosenjit Bose*, Jonathan F. Buss, and Anna Lubiw. Pattern matching for permutations. *Inf. Process. Lett.* 65.5 (1998), 277–283. DOI: 10.1016/S0020-0190(97)00209-3.

[16] Giuseppe Liotta, Anna Lubiw, Henk Meijer, and Sue Whitesides. The rectangle of influence drawability problem. *Comput. Geom.* 10.1 (1998), 1–22. DOI: 10.1016/S0925-7721(97)00018-7.

[15] Prosenjit Bose*, Leonidas J. Guibas, Anna Lubiw, Mark H. Overmars, Diane L. Souvaine, and Jorge Urrutia. The Floodlight Problem. *Int. J. Comput. Geometry Appl.* 7.1/2 (1997), 153–163. DOI: 10.1142/S0218195997000090.

[14] Paul Colley*, Anna Lubiw, and Jeremy Spinrad. Visibility graphs of towers. *Comput. Geom. Theory Appl.* 7.3 (1997), 161–172. DOI: 10.1016/0925-7721(95)00033-X.

[13] Jean-Paul Allouche, Anna Lubiw, Michel Mendes France, Alfred J. Van der Poorten, and Jeffrey Shallit. Convergents of folded continued fractions. *ACTA ARITHMETICA-WARSZAWA-* 77 (1996), 77–96.

[12] Michael D. Hutton* and Anna Lubiw. Upward Planar Drawing of Single-Source AcyclicDigraphs. *SIAM J. Comput.* 25.2 (1996), 291–311. DOI: 10.1137/S0097539792235906.

[11] Dieter Kratsch, Peter Damaschke, and Anna Lubiw. Dominating cliques in chordal graphs. *Discrete Math.* 128.1-3 (1994), 269–275. DOI: 10.1016/0012-365X(94)90118-X.

[10] Collette R. Coullard and Anna Lubiw. Distance visibility graphs. *Int. J. Comput. Geometry Appl.* 2.4 (1992), 349–362. DOI: 10.1142/S0218195992000202.

[9] Jan Kratochvíl, Anna Lubiw, and Jaroslav Nešetřil. Noncrossing subgraphs in topological layouts. *SIAM J. Discret. Math.* 4.2 (1991), 223–244. DOI: 10.1137/0404022.

[8] Anna Lubiw. A weighted min-max relation for intervals. *J. Comb. Theory, Ser. B* 53.2 (1991), 151–172. DOI: 10.1016/0095-8956(91)90073-S.

[7] Anna Lubiw. Short-chorded and perfect graphs. *J. Comb. Theory Ser. B* 51.1 (1991), 24–33. DOI: 10.1016/0095-8956(91)90003-3.

[6] Anna Lubiw and András Rácz. A lower bound for the integer element distinctness problem. *Inf. Comput.* 94.1 (1991), 83–92. DOI: 10.1016/0890-5401(91)90034-Y.

[5] Anna Lubiw. Counterexample to a Conjecture of Szymanski on Hypercube Routing. *Inf. Process. Lett.* 35.2 (1990), 57–61. DOI: 10.1016/0020-0190(90)90106-8.

[4] Anna Lubiw. The boolean basis problem and how to cover some polygons by rectangles. *SIAM J. Discret. Math.* 3.1 (1990), 98–115. DOI: 10.1137/0403010.

[3]   A. Lubiw. A note on odd/even cycles. *Discrete Appl. Math.* 22.1 (1988), 87–92. DOI: 10.1016/0166-218X(88)90125-4.

[2]   Anna Lubiw. Doubly lexical orderings of matrices. *SIAM J. Comput.* 16.5 (1987), 854–879. DOI: 10.1137/0216057.

[1]   Anna Lubiw. Some NP-Complete Problems Similar to Graph Isomorphism. *SIAM J. Comput.* 10.1 (1981), 11–21. DOI: 10.1137/0210002.

Selected for Conference Proceedings

[103]   Therese Biedl, Anna Lubiw, and Owen Merkel*. Building a larger class of graphs for efficient reconfiguration of vertex colouring. In: *Extended Abstracts EuroComb 2021*. Springer, 2021, 286–292.

[102]   Therese Biedl, Anna Lubiw, Anurag Murty Naredla*, Peter Dominik Ralbovsky, and Graeme Stroud*. Dispersion for Intervals: A Geometric Approach. In: *Symposium on Simplicity in Algorithms (SOSA)*. SIAM. 2021, 37–44.

[101]   Therese Biedl, Anna Lubiw, Anurag Murty Naredla*, Peter Dominik Ralbovsky, and Graeme Stroud*. Distant Representatives for Rectangles in the Plane. In: *29th Annual European Symposium on Algorithms (ESA 2021)*. Schloss Dagstuhl-Leibniz-Zentrum für Informatik. 2021.

[100]   Anna Lubiw and Anurag Murty Naredla*. The Visibility Center of a Simple Polygon. In: *29th Annual European Symposium on Algorithms (ESA 2021)*. Schloss Dagstuhl-Leibniz-Zentrum für Informatik. 2021.

[99]   Ahmad Biniaz*, Prosenjit Bose, Anna Lubiw, and Anil Maheshwari. Bounded-Angle Minimum Spanning Trees. In: *17th Scandinavian Symposium and Workshops on Algorithm Theory (SWAT 2020)*. Schloss Dagstuhl-Leibniz-Zentrum für Informatik. 2020.

[98]   Therese Biedl, Pavle Bulatovic, Veronika Irvine, Anna Lubiw, Owen Merkel*, and Anurag Murty Naredla*. Reconstructing a Polyhedron between Polygons in Parallel Slices. In: *Proceedings of the 31st Canadian Conference on Computational Geometry (CCCG), University of Alberta, Canada*. 2019.

[97]   Therese C. Biedl, Ahmad Biniaz*, and Anna Lubiw. Minimum Ply Covering of Points with Disks and Squares. In: *Proceedings of the 31st Canadian Conference on Computational Geometry (CCCG), University of Alberta, Canada*. 2019. URL: http://arxiv.org/abs/1905.00790.

[96]   Therese C. Biedl, Ahmad Biniaz*, Veronika Irvine, Kshitij Jain*, Philipp Kindermann*, and Anna Lubiw. Maximum Matchings and Minimum Blocking Sets in Θ_6-Graphs. In: *International Workshop on Graph-Theoretic Concepts in Computer Science (WG)*. 2019. URL: http://arxiv.org/abs/1901.01476.

[95] Erik D Demaine, David Eppstein, Adam Hesterberg, Kshitij Jain*, Anna Lubiw, Ryuhei Uehara, and Yushi Uno. Reconfiguring Undirected Paths. In: *Algorithms and Data Structures Symposium (WADS)*. Vol. 11646. Lecture Notes in Computer Science. Springer, 2019, 353–365. URL: https://arxiv.org/abs/1905.00518.

[94] Elena Arseneva, Yeganeh Bahoo, Ahmad Biniaz, Pilar Cano, Farah Chanchary, John Iacono, Kshitij Jain*, Anna Lubiw, Debajyoti Mondal*, Khadijeh Sheikhan, and Csaba D. Tóth. Compatible Paths on Labelled Point Sets. In: *Proceedings of the 30th Canadian Conference on Computational Geometry, CCCG 2018, August 8-10, 2018, University of Manitoba, Winnipeg, Manitoba, Canada*. 2018, 54–60. URL: http://www.cs.umanitoba.ca/\%7Ecccg2018/papers/session2A-p2.pdf.

[93] Therese C. Biedl, Martin Derka, Veronika Irvine, Anna Lubiw, Debajyoti Mondal*, and Alexi Turcotte*. Partitioning Orthogonal Histograms into Rectangular Boxes. In: *LATIN 2018: Theoretical Informatics - 13th Latin American Symposium, Buenos Aires, Argentina, April 16-19, 2018, Proceedings*. Vol. 10807. LNCS. 2018, 146–160. DOI: 10.1007/978-3-319-77404-6_12.

[92] Therese C. Biedl, Ahmad Biniaz*, Robert Cummings, Anna Lubiw, Florin Manea, Dirk Nowotka, and Jeffrey Shallit. Rollercoasters and Caterpillars. In: *45th International Colloquium on Automata, Languages, and Programming, ICALP 2018, July 9-13, 2018, Prague, Czech Republic*. 2018, 18:1–18:15. DOI: 10.4230/LIPIcs.ICALP.2018.18.

[91] Linda Kleist, Boris Klemz, Anna Lubiw, Lena Schlipf, Frank Staals, and Darren Strash. Convexity-Increasing Morphs of Planar Graphs. In: *Graph-Theoretic Concepts in Computer Science - 44th International Workshop, WG 2018, Cottbus, Germany, June 27-29, 2018, Proceedings*. Vol. 11159. LNCS. 2018, 318–330. DOI: 10.1007/978-3-030-00256-5_26.

[90] Anna Lubiw, Tillmann Miltzow, and Debajyoti Mondal*. The Complexity of Drawing a Graph in a Polygonal Region. In: *Graph Drawing and Network Visualization - 26th International Symposium, GD 2018, Barcelona, Spain, September 26-28, 2018, Proceedings*. Vol. 11282. LNCS. 2018, 387–401. DOI: 10.1007/978-3-030-04414-5_28.

[89] Anna Lubiw and Debajyoti Mondal*. Construction and Local Routing for Angle-Monotone Graphs. In: *Graph-Theoretic Concepts in Computer Science - 44th International Workshop, WG 2018, Cottbus, Germany, June 27-29, 2018, Proceedings*. Vol. 11159. LNCS. 2018, 356–368. DOI: 10.1007/978-3-030-00256-5_29.

[88] Felice De Luca, Md. Iqbal Hossain, Stephen G. Kobourov, Anna Lubiw, and Debajyoti Mondal*. Recognition and Drawing of Stick Graphs. In: *Graph Drawing and Network Visualization - 26th International Symposium, GD 2018, Barcelona, Spain, September 26-28, 2018, Proceedings*. Vol. 11282. LNCS. 2018, 303–316. DOI: 10.1007/978-3-030-04414-5_21.

[87] Nadia M. Benbernou, Erik D. Demaine, Martin L. Demaine, and Anna Lubiw. Universal Hinge Patterns for Folding Strips Efficiently into Any Grid Polyhedron. In: *Algorithms and Data Structures - 15th International Symposium, WADS 2017, St. John's, NL, Canada, July 31 - August 2, 2017, Proceedings*. Vol. 10389. LNCS. 2017, 109–120. DOI: 10.1007/978-3-319-62127-2_10.

[86] Therese C. Biedl, Timothy M. Chan, Martin Derka, Kshitij Jain*, and Anna Lubiw. Improved Bounds for Drawing Trees on Fixed Points with L-Shaped Edges. In: *Graph Drawing and Network Visualization - 25th International Symposium, GD 2017, Boston, MA, USA, September 25-27, 2017, Revised Selected Papers*. 2017, 305–317. DOI: 10.1007/978-3-319-73915-1_24.

[85] Dmitry Chistikov, Szabolcs Iván, Anna Lubiw, and Jeffrey Shallit. Fractional Coverings, Greedy Coverings, and Rectifier Networks. In: *34th Symposium on Theoretical Aspects of Computer Science, STACS 2017, March 8-11, 2017, Hannover, Germany*. 2017, 23:1–23:14. DOI: 10.4230/LIPIcs.STACS.2017.23.

[84] Anna Lubiw, Zuzana Masárová*, and Uli Wagner. A Proof of the Orbit Conjecture for Flipping Edge-Labelled Triangulations. In: *33rd International Symposium on Computational Geometry, SoCG 2017, July 4-7, 2017, Brisbane, Australia*. 2017, 49:1–49:15. DOI: 10.4230/LIPIcs.SoCG.2017.49.

[83] Anna Lubiw and Debajyoti Mondal*. On Compatible Triangulations with a Minimum Number of Steiner Points. In: *Proceedings of the 29th Canadian Conference on Computational Geometry, CCCG 2017, July 26-28, 2017, Carleton University, Ottawa, Ontario, Canada*. 2017, 101–106. URL: https://arxiv.org/abs/1706.09086.

[82] Anna Lubiw and Joseph O'Rourke. Angle-monotone Paths in Non-obtuse Triangulations. In: *Proceedings of the 29th Canadian Conference on Computational Geometry, CCCG 2017, July 26-28, 2017, Carleton University, Ottawa, Ontario, Canada*. 2017, 25–30. URL: https://arxiv.org/abs/1707.00219.

[81] Therese Biedl, Anna Lubiw, Saeed Mehrabi, and Sander Verdonschot. Rectangle-of-influence triangulations. In: *Proceedings of the 28th Canadian Conference on Computational Geometry (CCCG)*. 2016. URL: https://pdfs.semanticscholar.org/96eb/0c6c6d9375b19c3f6ba29c5eb8ff305cb613.pdf.

[80] Nicolas Bonichon, Prosenjit Bose, Paz Carmi, Irina Kostitsyna, Anna Lubiw, and Sander Verdonschot. Gabriel Triangulations and Angle-Monotone Graphs: Local Routing and Recognition. In: *24th International Symposium on Graph Drawing and Network Visualization (GD 2016)*. Vol. 9801. Lecture Notes in Computer Science. Springer, 2016, 519–531. DOI: 10.1007/978-3-319-50106-2.

[79] David Eppstein, Philipp Kindermann, Stephen G. Kobourov, Giuseppe Liotta, Anna Lubiw, Aude Maignan, Debajyoti Mondal*, Hamideh Vosoughpour*, Sue Whitesides, and Stephen K. Wismath. On the Planar Split Thickness of Graphs. In: *Proceedings 12th Latin American Theoretical Informatics Symposium (LATIN)*. Vol. 9644. Lec-

ture Notes in Computer Science. Springer, 2016, 403–415. DOI: `10.1007/978-3-662-49529-2_30`.

[78] Zachary Abel, Robert Connelly, Erik D. Demaine, Martin Demaine, Thomas Hull, Anna Lubiw, and Tomohiro Tachi. Rigid Flattening of Polyhedra with Slits. In: *Origami6: Proceedings of the 6th International Meeting on Origami in Science, Mathematics and Education (OSME 2014)*. American Math Society, 2015. URL: `http://erikdemaine.org/papers/TetraFlattening_Origami6/paper.pdf`.

[77] Patrizio Angelini, Giordano Da Lozzo, Fabrizio Frati, Anna Lubiw, Maurizio Patrignani, and Vincenzo Roselli*. Optimal Morphs of Convex Drawings. In: *31st International Symposium on Computational Geometry (SoCG)*. Vol. 34. Leibniz International Proceedings in Informatics (LIPIcs). 2015, 126–140. DOI: `10.4230/LIPIcs.SOCG.2015.126`.

[76] Erik D. Demaine, David Eppstein, Adam Hesterberg, Hiro Ito, Anna Lubiw, Ryuhei Uehara, and Yushi Uno. Folding a Paper Strip to Minimize Thickness. In: *9th International Workshop on Algorithms and Computation (WALCOM 2015), Dhaka, Bangladesh*. Vol. 8973. Lecture Notes in Computer Science. Springer, 2015. DOI: `10.1007/978-3-319-15612-5_11`.

[75] Laurie J. Heyer, Anna Lubiw, Debajyoti Mondal*, Ulrike Stege, and Sue Whitesides. Reconfiguring a Chain of Cubes. In: *Proceedings of the 27th Canadian Conference on Computational Geometry (CCCG)*. 2015. URL: `http://www.cccg.ca/proceedings/2015/40.pdf`.

[74] Stephen Kiazyk* and Anna Lubiw. Star unfolding from a geodesic curve. In: *31st Annual Symposium on Computational Geometry (SoCG)*. Vol. 34. Leibniz International Proceedings in Informatics (LIPIcs). 2015, 390–404. DOI: `10.4230/LIPIcs.SOCG.2015.390`.

[73] Zachary Abel, Erik D. Demaine, Martin L. Demaine, Jin ichi Itoh, Anna Lubiw, Chie Nara, and Joseph O'Rourke. Continuously Flattening Polyhedra Using Straight Skeletons. In: *Proc. 30th Annual Symposium on Computational Geometry (SoCG)*. 2014, 396–405. DOI: `10.1145/2582112.2582171`.

[72] Zachary Abel, Erik D. Demaine, Martin L. Demaine, David Eppstein, Anna Lubiw, and Ryuhei Uehara. Flat Foldings of Plane Graphs with Prescribed Angles and Edge Lengths. In: *Graph Drawing, 22nd International Symposium, GD 2014*. Vol. 8871. Lecture Notes in Computer Science. Springer, 2014, 272–283. DOI: `10.1007/978-3-662-45803-7_23`.

[71] Fidel Barrera-Cruz*, Penny Haxell, and Anna Lubiw. Morphing Schnyder drawings of planar triangulations. In: *Graph Drawing, 22nd International Symposium, GD 2014*. Vol. 8871. Lecture Notes in Computer Science. Springer, 2014, 294–305. DOI: `10.1007/978-3-662-45803-7_25`.

[70] Fidel Barrera-Cruz*, Therese Biedl, Martin Derka, Stephen Kiazyk*, Anna Lubiw, and Hamideh Vosoughpour*. Turning Orthogonally Convex Polyhedra into Orthoballs. In: *Proceedings of the 26th Canadian Conference on Computational Geometry, CCCG.* 2014. URL: `https://pdfs.semanticscholar.org/4c21/a5b62bbb5c5dd8814a5783962041d0f704:` `pdf`.

[69] Lukas Barth, Sara Irina Fabrikant, Stephen G Kobourov, Anna Lubiw, Martin Nöllenburg, Yoshio Okamoto, Sergey Pupyrev, Claudio Squarcella, Torsten Ueckerdt, and Alexander Wolff. Semantic word cloud representations: Hardness and approximation algorithms. In: *Latin American Theoretical Informatics Symposium (LATIN).* Vol. 8392. Lecture Notes in Computer Science. Springer, 2014, 514–525. DOI: `10.1007/978-3-642-54423-1_45`.

[68] Timothy M. Chan, Fabrizio Frati, Carsten Gutwenger, Anna Lubiw, Petra Mutzel, and Marcus Schaefer. Drawing Partially Embedded and Simultaneously Planar Graphs. In: *Graph Drawing, 22nd International Symposium, GD 2014.* Vol. 8871. Lecture Notes in Computer Science. Springer, 2014, 25–39. DOI: `10.1007/978-3-662-45803-7_3`.

[67] Anna Lubiw, Jack Snoeyink, and Hamideh Vosoughpour*. Visibility Graphs, Dismantlability, and the Cops and Robbers Game. In: *Proceedings of the 26th Canadian Conference on Computational Geometry, CCCG.* 2014.

[66] Zachary Abel, Erik D. Demaine, Martin L. Demaine, Sarah Eisenstat, Anna Lubiw, André Schulz, Diane L. Souvaine, Giovanni Viglietta, and Andrew Winslow. Algorithms for Designing Pop-Up Cards. In: *30th International Symposium on Theoretical Aspects of Computer Science, STACS.* 2013, 269–280. DOI: `10.4230/LIPIcs.STACS.2013.269`.

[65] Oswin Aichholzer, Greg Aloupis, Erik D. Demaine, Martin L. Demaine, Sándor P. Fekete, Michael Hoffmann, Anna Lubiw, Jack Snoeyink, and Andrew Winslow. Covering Folded Shapes. In: *Proceedings of the 25th Canadian Conference on Computational Geometry, CCCG.* 2013. URL: `http://cccg.ca/proceedings/2013/papers/paper_37.pdf`.

[64] Soroush Alamdari*, Patrizio Angelini, Timothy M. Chan, Giuseppe Di Battista, Fabrizio Frati, Anna Lubiw, Maurizio Patrignani, Vincenzo Roselli*, Sahil Singla*, and Bryan T. Wilkinson*. Morphing Planar Graph Drawings with a Polynomial Number of Steps. In: *Proceedings of the Twenty-Fourth Annual ACM-SIAM Symposium on Discrete Algorithms, SODA.* 2013, 1656–1667. URL: `http://dl.acm.org/citation.cfm?id=2627817.2627936`.

[63] Soroush Alamdari*, Therese C. Biedl, Timothy M. Chan, Elyot Grant, Krishnam Raju Jampani*, Srinivasan Keshav, Anna Lubiw, and Vinayak Pathak*. Smart-Grid Electricity Allocation via Strip Packing with Slicing. In: *Algorithms and Data Structures - 13th International Symposium, WADS.* Vol. 8037. Lecture Notes in Computer Science. Springer, 2013, 25–36. DOI: `10.1007/978-3-642-40104-6_3`.

[62] Timothy M. Chan, Hella-Franziska Hoffmann*, Stephen Kiazyk*, and Anna Lubiw. Minimum Length Embedding of Planar Graphs at Fixed Vertex Locations. In: *Graph Drawing, 21st International Symposium, GD 2013*. Vol. 8242. Lecture Notes in Computer Science. Springer, 2013, 376–387. DOI: `10.1007/978-3-319-03841-4_33`.

[61] Soroush Alamdari*, Timothy M. Chan, Elyot Grant, Anna Lubiw, and Vinayak Pathak*. Self-approaching Graphs. In: *Graph Drawing, 20th International Symposium, GD 2012*. Vol. 7704. Lecture Notes in Computer Science. Springer, 2012, 260–271. DOI: `10.1007/978-3-642-36763-2_23`.

[60] Patrizio Angelini, Giuseppe Di Battista, Walter Didimo, Fabrizio Frati, Seok-Hee Hong, Michael Kaufmann, Giuseppe Liotta, and Anna Lubiw. Large angle crossing drawings of planar graphs in subquadratic area. In: *Computational Geometry: Revised Papers from the 14th Spanish Meeting on Computational Geometry (EGC 2011)*. Ed. by Alberto Márquez, Pedro Ramos, and Jorge Urrutia. Vol. 7579. Lecture Notes in Computer Science. Alcalá de Henares, Spain: Springer, 2012, 200–209. DOI: `10.1007/978-3-642-34191-5_19`.

[59] Erik D. Demaine and Anna Lubiw. A generalization of the source unfolding of convex polyhedra. In: *Computational Geometry: Revised Papers from the 14th Spanish Meeting on Computational Geometry (EGC 2011)*. Ed. by Alberto Márquez, Pedro Ramos, and Jorge Urrutia. Vol. 7579. Lecture Notes in Computer Science. Alcalá de Henares, Spain, 2012, 185–199. DOI: `10.1007/978-3-642-34191-5_18`.

[58] Anna Lubiw and Vinayak Pathak*. Flip Distance Between Two Triangulations of a Point Set is NP-complete. In: *Proceedings of the 24th Canadian Conference on Computational Geometry, CCCG*. 2012, 119–124. URL: `http://2012.cccg.ca/papers/paper63.pdf`.

[57] Oswin Aichholzer, Greg Aloupis, Erik D. Demaine, Martin L. Demaine, Vida Dujmović, Ferran Hurtado, Anna Lubiw, Günter Rote, André Schulz, Diane L. Souvaine, and Andrew Winslow. Convexifying Polygons Without Losing Visibilities. In: *Proc. 22nd Canadian Conference on Computational Geometry (CCCG)*. 2011. URL: `http://2011.cccg.ca/PDFschedule/papers/paper70.pdf`.

[56] Erik D. Demaine, Martin L. Demaine, Sarah Eisenstat, Anna Lubiw, and Andrew Winslow. Algorithms for solving Rubik's cubes. In: *ESA'11: Proceedings of the 19th European Symposium on Algorithms*. Vol. 6942. Lecture Notes in Computer Science. Berlin, Heidelberg: Springer-Verlag, 2011, 689–700. DOI: `10.1007/978-3-642-23719-5_58`. URL: `http://arxiv.org/abs/1106.5736`.

[55] Brad Ballinger, Nadia Benbernou, Prosenjit Bose, Mirela Damian, Erik D. Demaine, Vida Dujmović, Robin Flatland, Ferran Hurtado, John Iacono, Anna Lubiw, Pat Morin, Vera Sacristán, Diane L. Souvaine, and Ryuhei Uehara. Coverage with k-transmitters in the presence of obstacles. In: *COCOA'10: Proceedings of the 4th international conference on Combinatorial optimization and applications*. Vol. 6509. Lecture Notes in Computer Science. Berlin, Heidelberg: Springer-Verlag, 2010, 1–15. DOI: `10.1007/978-3-642-17461-2_1`.

[54] Gill Barequet, Nadia Benbernou, David Charlton, Erik D. Demaine, Martin L. Demaine, Mashhood Ishaque, Anna Lubiw, André Schulz, Diane L. Souvaine, Godfried T. Toussaint, and Andrew Winslow. Bounded-Degree Polyhedronization of Point Sets. In: *Proc. 22nd Canadian Conference on Computational Geometry (CCCG)*. 2010. URL: http://cccg.ca/proceedings/2010/paper28.pdf.

[53] Erik D. Demaine, Martin L. Demaine, Anna Lubiw, Arlo Shallit*, and Jonah Shallit*. Zipper unfoldings of polyhedral complexes. In: *Proc. 22nd Canadian Conference on Computational Geometry (CCCG)*. 2010, 219–222. URL: http://cccg.ca/proceedings/2010/paper58.pdf.

[52] Bernhard Haeupler, Krishnam Raju Jampani*, and Anna Lubiw. Testing Simultaneous Planarity When the Common Graph Is 2-Connected. In: *21st International Symposium on Algorithms and Computation, ISAAC 2010*. Ed. by Otfried Cheong, Kyung-Yong Chwa, and Kunsoo Park. Vol. 6507. Lecture Notes in Computer Science. Springer, 2010, 410–421. DOI: 10.1007/978-3-642-17514-5_35. URL: http://arxiv.org/abs/1009.4517.

[51] Krishnam Raju Jampani* and Anna Lubiw. Simultaneous interval graphs. In: *21st International Symposium on Algorithms and Computation, ISAAC 2010*. Ed. by Otfried Cheong, Kyung-Yong Chwa, and Kunsoo Park. Vol. 6507. Lecture Notes in Computer Science. Springer, 2010, 206–217. DOI: 10.1007/978-3-642-17517-6_20. URL: http://arxiv.org/abs/1009.3502.

[50] Mustaq Ahmed* and Anna Lubiw. Shortest Paths Avoiding Forbidden Subpaths. In: *26th International Symposium on Theoretical Aspects of Computer Science, STACS 2009*. Ed. by Susanne Albers and Jean-Yves Marion. Vol. 3. LIPIcs. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, Germany, 2009, 63–74. DOI: 10.4230/LIPIcs.STACS.2009.1831. URL: http://arxiv.org/abs/0807.0807.

[49] Mustaq Ahmed*, Anna Lubiw, and Anil Maheshwari. Shortest Gently Descending Paths. In: *WALCOM '09: Proceedings of the 3rd International Workshop on Algorithms and Computation*. Berlin, Heidelberg: Springer-Verlag, 2009, 59–70. DOI: 10.1007/978-3-642-00202-1_6.

[48] Krishnam Raju Jampani* and Anna Lubiw. The Simultaneous Representation Problem for Chordal, Comparability and Permutation Graphs. In: *WADS '09: Proceedings of the 11th International Symposium on Algorithms and Data Structures*. Berlin, Heidelberg: Springer-Verlag, 2009, 387–398. DOI: 10.1007/978-3-642-03367-4_34.

[47] Mustaq Ahmed* and Anna Lubiw. Shortest anisotropic paths with few bends is NP-complete. In: *Abstracts from the 18th Annual Fall Workshop on Computational Geometry*. 2008, 28–29.

[46] Stephane Durocher, Krishnam Raju Jampani*, Anna Lubiw, and Lata Narayanan. Modelling gateway placement in wireless networks: geometric k-centres of unit disc graphs. In: *DIALM-POMC '08: Proceedings of the fifth international workshop on*

Foundations of mobile computing. New York, NY, USA: ACM, 2008, 79–86. DOI: 10.1145/1400863.1400879.

[45]   Anna Lubiw and Mark Petrick*. Morphing Planar Graph Drawings with Bent Edges. In: *Proceedings of the International Conference on Topological and Geometric Graph Theory, Electronic Notes in Discrete Mathematics*. Vol. 31. 2008, 45–48. DOI: 10.1016/j.endm.2008.06.007.

[44]   Mina Razaghpour* and Anna Lubiw. The Steiner Ratio for Obstacle-Avoiding Rectilinear Steiner Trees. In: *Proceedings of the 20th Annual Canadian Conference on Computational Geometry, CCCG*. 2008. URL: http://cccg.ca/proceedings/2008/paper38full.pdf.

[43]   Mustaq Ahmed* and Anna Lubiw. Properties of shortest descending paths. In: *Abstracts from the 17th Annual Fall Workshop on Computational Geometry*. 2007.

[42]   Stephen Bahun* and Anna Lubiw. Optimal Schedules for 2-guard Room Search. In: *Proceedings of the 19th Annual Canadian Conference on Computational Geometry, CCCG 2007*. 2007, 245–248. URL: http://www.cs.uwaterloo.ca/~alubiw/papers/guards.pdf.

[41]   Therese C. Biedl, Anna Lubiw, and Michael J. Spriggs*. Cauchy's Theorem and Edge Lengths of Convex Polyhedra. In: *Algorithms and Data Structures, 10th International Workshop, WADS*. Vol. 4619. Lecture Notes in Computer Science. Springer, 2007, 398–409. DOI: 10.1007/978-3-540-73951-7_35.

[40]   Peter Brass, Ferran Hurtado, Benjamin J. Lafreniere*, and Anna Lubiw. A Lower Bound on the Area of a 3-Coloured Disc Packing. In: *Proceedings of the 19th Annual Canadian Conference on Computational Geometry (CCCG)*. 2007, 101–104. URL: http://cccg.ca/proceedings/2007/04b3.pdf.

[39]   Anna Lubiw. Morphing Planar Graph Drawings. In: *Proceedings of the 19th Annual Canadian Conference on Computational Geometry (CCCG)*. 2007, 1. URL: http://cccg.ca/proceedings/2007/001.pdf.

[38]   Mustaq Ahmed* and Anna Lubiw. Shortest Descending Paths through Given Faces. In: *Proceedings of the 18th Annual Canadian Conference on Computational Geometry (CCCG)*. 2006. URL: http://www.cs.queensu.ca/cccg/papers/cccg10.pdf.

[37]   Therese C. Biedl, Anna Lubiw, and Michael J. Spriggs*. Morphing Planar Graphs While Preserving Edge Directions. In: *Graph Drawing, 13th International Symposium, GD 2005*. Vol. 3843. Lecture Notes in Computer Science. Springer, 2006, 13–24. DOI: 10.1007/11618058_2.

[36]   Anna Lubiw, Mark Petrick*, and Michael J. Spriggs*. Morphing orthogonal planar graph drawings. In: *SODA '06: Proceedings of the seventeenth annual ACM-SIAM symposium on Discrete algorithm*. New York, NY, USA: ACM, 2006, 222–230. DOI: 10.1145/1109557.1109583.

[35] Therese C. Biedl, Anna Lubiw, and Michael J. Spriggs*. Morphing Polyhedra Preserving Face Normals: A Counterexample. In: *17th Canadian Conference on Computational Geometry (CCCG)*. 2005, 109–112. URL: http://www.cccg.ca/proceedings/2005/15.pdf.

[34] Brendan Lucier* and Anna Lubiw. Local Overlaps in Unfoldings of Polyhedra. In: *Abstracts from the 15th Annual Fall Workshop on Computational Geometry and Visualization*. 2005. URL: http://www.cs.uwaterloo.ca/~alubiw/papers/localunf.pdf.

[33] Therese C. Biedl, Anna Lubiw, and Michael J. Spriggs*. Angles and Lengths in Reconfigurations of Polygons and Polyhedra. In: *29th International Symposium on Mathematical Foundations of Computer Science, MFCS*. Vol. 3153. Lecture Notes in Computer Science. Springer, 2004, 748–759. DOI: 10.1007/978-3-540-28629-5_58.

[32] Anna Lubiw and Luke Tanur*. Pattern Matching in Polyphonic Music as a Weighted Geometric Translation Problem. In: *5th International Conference on Music Information Retrieval, ISMIR*. 2004. URL: http://ismir2004.ismir.net/proceedings/p054-page-289-paper154.pdf.

[31] Therese C. Biedl, Anna Lubiw, and Michael J. Spriggs*. Parallel morphing of trees and cycles. In: *15th Canadian Conference on Computational Geometry (CCCG)*. 2003, 29–34. URL: http://www.cccg.ca/proceedings/2003/20.pdf.

[30] Peter Brass, Eowyn Cenek*, Christian A. Duncan, Alon Efrat, Cesim Erten*, Dan P. Ismailescu, Stephen G. Kobourov, Anna Lubiw, and Joseph S. B. Mitchell. On Simultaneous Planar Graph Embeddings. In: *8th International Workshop on Algorithms and Data Structures (WADS)*. Vol. 2748. Lecture Notes in Computer Science. Springer, 2003, 243–255. DOI: 10.1007/978-3-540-45078-8_22.

[29] Moshe Dror, Alon Efrat, Anna Lubiw, and Joseph S. B. Mitchell. Touring a sequence of polygons. In: *STOC '03: Proceedings of the thirty-fifth annual ACM symposium on Theory of computing*. New York, NY, USA: ACM, 2003, 473–482. DOI: 10.1145/780542.780612.

[28] Masud Hasan* and Anna Lubiw. Equiprojective Polyhedra. In: *15th Canadian Conference on Computational Geometry (CCCG)*. 2003, 47–50. URL: http://www.cccg.ca/proceedings/2003/33.pdf.

[27] Alon Efrat, Stephen G. Kobourov, and Anna Lubiw. Computing Homotopic Shortest Paths Efficiently. In: *10th Annual European Symposium on Algorithms (ESA)*. Vol. 2461. Lecture Notes in Computer Science. Springer, 2002, 411–423. DOI: 10.1007/3-540-45749-6_38.

[26] Giuseppe Di Battista, Giuseppe Liotta, Anna Lubiw, and Sue Whitesides. Orthogonal Drawings of Cycles in 3D Space (Extended Abstract). In: *GD '00: Proceedings of the 8th International Symposium on Graph Drawing*. London, UK, UK: Springer-Verlag, 2001, 272–283. DOI: 10.1007/3-540-44541-2_26.

[25] Giuseppe Di Battista, Giuseppe Liotta, Anna Lubiw, and Sue Whitesides. Embedding Problems for Paths with Direction Constrained Edges. In: *COCOON '00: Proceedings of the 6th Annual International Conference on Computing and Combinatorics.* London, UK, UK: Springer-Verlag, 2000, 64–73. DOI: `10.1007/3-540-44968-X_7`.

[24] Erik D. Demaine*, Martin L. Demaine, and Anna Lubiw. Folding and Cutting Paper. In: *JCDCG '98: Revised Papers from the Japanese Conference on Discrete and Computational Geometry.* London, UK, UK: Springer-Verlag, 2000, 104–118. DOI: `10.1007/978-3-540-46515-7_9`.

[23] Therese C. Biedl, Anna Lubiw, and Julie Sun*. When can a net fold to a polyhedron. In: *CCCG.* 1999. URL: `http://www.cs.ubc.ca/conferences/CCCG/elec_proc/fp16.pdf`.

[22] Therese C. Biedl, Prosenjit Bose, Erik D. Demaine*, and Anna Lubiw. Efficient Algorithms for Petersen's Matching Theorem. In: *Proceedings of the Tenth Annual ACM-SIAM Symposium on Discrete Algorithms (SODA).* 1999, 130–139. DOI: `10.1145/314500.314544`.

[21] Therese C. Biedl, Erik D. Demaine*, Martin L. Demaine, Sylvain Lazard, Anna Lubiw, Joseph O'Rourke, Mark H. Overmars, Steve Robbins, Ileana Streinu, Godfried T. Toussaint, and Sue Whitesides. Locked and Unlocked Polygonal Chains in 3D. In: *Proceedings of the Tenth Annual ACM-SIAM Symposium on Discrete Algorithms (SODA).* 1999, 866–867. DOI: `10.1145/314500.314977`.

[20] Erik D. Demaine*, Martin L. Demaine, and Anna Lubiw. Folding and one straight cut suffice. In: *SODA '99: Proceedings of the tenth annual ACM-SIAM symposium on Discrete algorithms.* Philadelphia, PA, USA: Society for Industrial and Applied Mathematics, 1999, 891–892. DOI: `10.1145/314500.315072`.

[19] Erik D. Demaine*, Martin L. Demaine, and Anna Lubiw. Polyhedral Sculptures with Hyperbolic Paraboloids. In: *Proceedings of the 2nd Annual Conference of BRIDGES: Mathematical Connections in Art, Music, and Science (BRIDGES'99).* Winfield, Kansas, 1999, 91–100. URL: `http://erikdemaine.org/papers/BRIDGES99/paper.pdf`.

[18] Erik D. Demaine*, Martin L. Demaine, Anna Lubiw, Joseph O'Rourke, and Irena Pashchenko. Metamorphosis of the cube. In: *SCG '99: Proceedings of the fifteenth annual symposium on Computational geometry.* New York, NY, USA: ACM, 1999, 409–410. DOI: `10.1145/304893.304995`. URL: `http://erikdemaine.org/metamorphosis/`.

[17] Claudia Iturriaga* and Anna Lubiw. Elastic Labels Around the Perimeter of a Map. In: *WADS '99: Proceedings of the 6th International Workshop on Algorithms and Data Structures.* London, UK, UK: Springer-Verlag, 1999, 306–317. DOI: `10.1007/3-540-48447-7_31`.

[16] Therese C. Biedl, Erik D. Demaine*, Martin L. Demaine, Anna Lubiw, and Godfried T. Toussaint. Hiding disks in folded polygons. In: *Tenth Canadian Conference on Computational Geometry (CCCG)*. 1998. URL: http://cgm.cs.mcgill.ca/cccg98/proceedings/cccg98-biedl-hiding.ps.gz.

[15] Therese C. Biedl, Erik D. Demaine*, Martin L. Demaine, Sylvain Lazard, Anna Lubiw, Joseph O'Rourke, Steve Robbins, Ileana Streinu, Godfried T. Toussaint, and Sue Whitesides. On reconfiguring tree linkages: Trees can lock. In: *Tenth Canadian Conference on Computational Geometry (CCCG)*. 1998. URL: http://cgm.cs.mcgill.ca/cccg98/proceedings/cccg98-biedl-reconfiguring.ps.gz.

[14] Therese C. Biedl, Erik D. Demaine*, Martin L. Demaine, Anna Lubiw, Mark H. Overmars, Joseph O'Rourke, Steve Robbins, and Sue Whitesides. Unfolding some classes of orthogonal polyhedra. In: *Tenth Canadian Conference on Computational Geometry (CCCG)*. 1998. URL: http://cgm.cs.mcgill.ca/cccg98/proceedings/cccg98-biedl-unfolding.ps.gz.

[13] Claudia Iturriaga* and Anna Lubiw. Elastic Labels on the Perimeter of a Rectangle. In: *GD '98: Proceedings of the 6th International Symposium on Graph Drawing*. London, UK, UK: Springer-Verlag, 1998, 451–453. DOI: 10.1007/3-540-37623-2_42.

[12] Claudia Iturriaga* and Anna Lubiw. Elastic Labels: the Two-Axis Case. In: *GD '97: Proceedings of the 5th International Symposium on Graph Drawing*. London, UK, UK: Springer-Verlag, 1997, 181–192. DOI: 10.1007/3-540-63938-1_61.

[11] Hossam A. ElGindy, Giuseppe Liotta, Anna Lubiw, Henk Meijer, and Sue Whitesides. Recognizing Rectangle of Influence Drawable Graphs. In: *GD '94: Proceedings of the DIMACS International Workshop on Graph Drawing*. London, UK, UK: Springer-Verlag, 1995, 352–363. DOI: 10.1007/3-540-58950-3_390.

[10] Anna Lubiw and Naji Mouawad*. Interval Graphs as Visibility Graphs of Simple Polygons Part 1: Parachutes. In: *6th Canadian Conference on Computational Geometry (CCCG)*. 1994, 18–23.

[9] Prosenjit Bose*, Jonathan F. Buss, and Anna Lubiw. Pattern Matching for Permutations. In: *WADS '93: Proceedings of the Third Workshop on Algorithms and Data Structures*. London, UK, UK: Springer-Verlag, 1993, 200–209. DOI: 10.1007/3-540-57155-8_248.

[8] Prosenjit Bose*, Leonidas J. Guibas, Anna Lubiw, Mark H. Overmars, Diane L. Souvaine, and Jorge Urrutia. The Floodlight Problem. In: *5th Canadian Conference on Computational Geometry (CCCG)*. 1993, 399–404.

[7] Hazel Everett, Anna Lubiw, and Joseph O'Rourke. Recovery of Convex Hulls From External Visibility Graphs. In: *5th Canadian Conference on Computational Geometry (CCCG)*. 1993, 309–314.

[6]   Anna Lubiw and Nora Sleumer*. Maximal Outerplanar Graphs Are Relative Neighbourhood Graphs. In: *5th Canadian Conference on Computational Geometry (CCCG)*. 1993, 198–203. URL: http://www.cs.uwaterloo.ca/~alubiw/papers/mop.pdf.

[5]   Collette R. Coullard and Anna Lubiw. Distance Visibility Graphs. In: *Symposium on Computational Geometry*. 1991, 289–296. DOI: 10.1145/109648.109681.

[4]   Michael D. Hutton* and Anna Lubiw. Upward planar drawing of single source acyclic digraphs. In: *SODA '91: Proceedings of the second annual ACM-SIAM symposium on Discrete algorithms*. Philadelphia, PA, USA: Society for Industrial and Applied Mathematics, 1991, 203–211. DOI: 10.1145/127787.127828.

[3]   Anna Lubiw. Decomposing polygonal regions into convex quadrilaterals. In: *SCG '85: Proceedings of the first annual symposium on Computational geometry*. New York, NY, USA: ACM, 1985, 97–106. DOI: 10.1145/323233.323247.

[2]   Anna Lubiw. Doubly Lexical Orderings of Matrices. In: *Proceedings of the 17th Annual ACM Symposium on Theory of Computing, STOC*. 1985, 396–404. DOI: 10.1145/22145.22189.

[1]   G. Sakauye, A. Lubiw, J. Royle, R. Epplett, J. Twidale, E. Shew, E. Attfield, F. Brglez, and P. Wilcox. A set of programs for MOS design. In: *Proceedings of the 18th Design Automation Conference*. IEEE Press. 1981, 435–442. DOI: 10.1109/DAC.1981.1585392.

Technical Reports (not listed above)

[5]   Oswin Aichholzer, Erik D Demaine, Matias Korman, Jayson Lynch*, Anna Lubiw, Zuzana Masárová*, Mikhail Rudoy, Virginia Vassilevska Williams, and Nicole Wein. *Hardness of Token Swapping on Trees*. Tech. rep. 2021. URL: https://arxiv.org/abs/2103.06707.

[4]   Ahmad Biniaz*, Kshitij Jain*, Anna Lubiw, Zuzana Masárová*, Tillmann Miltzow, Debajyoti Mondal*, Anurag Murty Naredla*, Josef Tkadlec, and Alexi Turcotte*. *Token Swapping on Trees*. Tech. rep. 2019. URL: https://arxiv.org/abs/1903.06981.

[3]   Anna Lubiw and Vinayak Pathak*. *Reconfiguring Ordered Bases of a Matroid*. Tech. rep. 2016. arXiv: 1612.00958. URL: http://arxiv.org/abs/1612.00958.

[2]   Erik D. Demaine*, Martin L. Demaine, Anna Lubiw, and Joseph O'Rourke. *Examples, Counterexamples, and Enumeration Results for Foldings and Unfoldings between Polygons and Polytopes*. Tech. rep. 069. Smith College, 2000. URL: http://arxiv.org/abs/cs.CG/0007019.

[1]   Anna Lubiw and Joseph O'Rourke. *When Can a Polygon Fold to a Polytope?* Tech. rep. 1996. URL: ftp://cs.smith.edu/pub/orourke.papers/folding.ps.Z.

Theses

[2]   Anna Lubiw. Orderings and some combinatorial optimization problems with geometric applications. PhD thesis. Toronto, Ont., Canada: University of Toronto, 1986.

[1]   Anna Lubiw. Gamma-free matrices. MA thesis. University of Waterloo, 1982.

Recent Invited Talks

- July 2021, "Geometric Reconfiguration", invited to International Colloquium on Automata, Languages and Programming (ICALP) workshop on Combinatorial Reconfiguration

- July 2021, "Token Swapping", invited to International Workshop on Combinatorial Algorithms (IWOCA)

- April 2021, "Keeping your Distance: Algorithms and Hardness", invited to European Workshop on Computational Geometry (EuroCG)

- March 2021, "The Visibility Center of a Polygon", invited to Geometry Seminar, Courant Institute of Mathematical Sciences, New York University

- December 2020, "Piece-Wise Linear Morphing", invited to Structures on Surfaces seminar, INRIA, France

- May 2019, "Reconfiguration and Geometry," (two talks) invited to 3rd International Workshop on Combinatorial Reconfiguration (CoRe 2019), Aussois, France

- September 2018, "The size of graph drawings and representations," invited to International Symposium on Graph Drawing and Network Visualization (GD) PhD School, Barcelona, Spain

- February 2018, "Reconfiguration of Triangulations of a Planar Point Set," invited to Distinguished Lecture Series, University of Winnipeg, Canada

- March 2018, "On Beyond Tuttes Graph Drawing Algorithm," and "Reconfiguration of Triangulations of a Planar Point Set," invited to Southeastern Int. Conf. on Combinatorics, Graph Theory and Computing, Boca Raton, Florida, United States

- July 2017, "Morphing and Compatible Triangulations of Planar Graph Drawings," invited to Symposium on Computational Geometry (SoCG) workshop on Geometric Perspectives in Graph Drawing and Information Visualization, Brisbane, Australia

- June 2017, "Flipping Edge-Labelled Triangulations," invited to Canadian Discrete and Algorithmic Mathematics (CanaDAM) mini-symposium, Toronto, Canada

- February 2017, "Geometric Realizations and Reconfigurations," invited to Dagstuhl seminar, Dagstuhl, Germany.

- September 2017, "Morphing and Compatible Triangulations of Planar Graph Drawings," invited to Workshop on Graph Classes, Optimization, and Width Parameters (GROW), Toronto, Canada

- October 2016, "Optimizing Unfoldings of Convex Polyhedra," invited to International Conference on Mathematical Modeling and Applications, Nakano, Japan

- June 2016, "Flipping Edge-Labelled Triangulations," invited to A New Era of Discrete & Computational Geometry: 30 Years Later, Ascona, Switzerland.

- January 2016, "Star Unfoldings of Convex Polyhedra," invited to AMS Special Session on Origami Methods and Applications, Joint Mathematics Meeting, Seattle, WA.

- October–November 2015, "Flattening and Unfolding Convex Polyhedra," Utrech University, Technical U. of Eindhoven, and Free University of Brussels.

- October 2015, "Self-Approaching Graphs," invited to CMO-BIRS Workshop: Searching and Routing in Discrete and Continuous Domains, Oaxaca, Mexico.

- September 2015, "Flattening and Unfolding Convex Polyhedra," invited to Cheriton Research Symposium, University of Waterloo.

Grants/Awards

- April 2020—April 2025, NSERC (Natural Sciences and Engineering Research Council of Canada) Discovery Grant, $48,000/year.

- April 2015—April 2020, NSERC (Natural Sciences and Engineering Research Council of Canada) Discovery Grant, $43,000/year.

- April 2010—April 2015, NSERC (Natural Sciences and Engineering Research Council of Canada) Discovery Grant, $43,000/year.

- April 2005—April 2010, NSERC (Natural Sciences and Engineering Research Council of Canada) Discovery Grant, $37,000/year.

- April 2000—April 2005, NSERC (Natural Sciences and Engineering Research Council of Canada) Operating Grant, $37,000/year.

- April 1996—April 2000, NSERC (Natural Sciences and Engineering Research Council of Canada) Operating Grant, $34,500–$39,848/year.

- April 1993—April 1996, NSERC Operating Grant, $28,000/year.

- April 1990—April 1993, NSERC Operating Grant, $25,428/year.

- April 1988—April 1990, NSERC Operating Grant, $16,000/year.

- August 1987—March 1988, University of Waterloo interim grant, $5000.

- Sept. 1986—July 1987, NSERC Postdoctoral Fellowship.

- Sept. 1980—Aug. 1982 and Sept. 1983—Dec. 1985, NSERC postgraduate scholarships.

Teaching

- Computational Geometry, graduate, 1990, 1995, 2006, 2008, 2016, 2018, 2020.

- Algorithms for Shortest Paths, graduate, 2014.

- Graph Theoretic Algorithms, graduate, 2011.

- Geometric Graphs, graduate, 2009.

- Algorithms for Polyhedra, graduate, 2002, 2004.

- Algorithms, advanced graduate, 1988 and 1992

- Design and Analysis of Algorithms, 4th year undergraduate/beginning graduate, 1987, 1988, 1991, 1992, 1995, 1997, 2000, 2006, 2007, 2012, 2013, 2018, 2019.

- Algorithms, 3rd year undergraduate, 1999, 2005, 2008, 2012, 2017, 2019, 2020, 2021.

- Introductory Theory of Computation, 3rd year undergraduate, 1987, 1988, 1995, 1996, 1998, 2001, 2004.

- Models of Computation, 3rd year undergraduate, 2003, 2007, 2011.

- Data Structures and Algorithms, 3rd year undergraduate, 1991

- Linear Programming, 3rd year undergraduate, 1981

- Logic and Computation, 2nd year undergraduate, 2015

- Data Structures and Data Management, 2nd year undergraduate, 1998, 1999, 2000, 2005.

- Programming Languages and Computer Architecture, 2nd year undergraduate, 1989, 1990, and 1992

Supervision

Postdoc:

- Jayson Lynch, co-supervised with the Algorithms and Complexity group, September 2020 – December 2021.

- Ahmad Biniaz, co-supervised with Therese Biedl, September 2017 – August 2019. Currently Assistant Prof., School of Computer Science, University of Windsor.

- Philipp Kindermann, co-supervised with Therese Biedl, March 2018 - August 2018. Currently Research associate at Chair of Computer Science I, University of Würzburg, Germany

- Debajyoti Mondal, September 2016 – December 2017. Currently Assistant Prof., Dept. Computer Science, University of Saskatchewan.

- Megan Owen, January 2012 – December 2013. Currently Assistant Prof., Dept. of Mathematics and Computer Science, Lehman College, CUNY.

- Steph Durocher, August 2007 – July 2008. Currently Prof., Dept. of Computer Science, University of Winnipeg.

PhD:

- Anurag Murty Naredla, September 2017 – present.

- Zuzana Masárová, at IST Austria, co-supervised by Uli Wagner and Herbert Edelsbrunner, June 2015 – 2020. Thesis: "Reconfiguration Problems"

- Hamide Vosoughpour, September 2011 – October 2017. Thesis: "Straight Line Movement in Morphing and Pursuit Evasion". Currently a software engineer at Google Waterloo.

- Vinayak Pathak, September 2011 – December 2014. Thesis: "Reconfiguring Triangulations". Currently Associate Director, Quantitative Developer/Architect, Scotiabank.

- Fidel Barrera-Cruz (informal supervision, primary supervisor P.E. Haxell) May 2012 – June 2014. Thesis: ""Morphing Planar Triangulations". Currently at Google.

- Krishnam Raju Jampani, 2011, thesis: "Simultaneous Graph Representation Problems." K.R. Jampani currently works at Google.

- Mustaq Ahmed, 2009, thesis: "Constrained Shortest Paths in Terrains and Graphs." M. Ahmed currently works at Google Waterloo.

- Michael Spriggs, 2007, co-supervised with Therese Biedl, thesis: "Morphing Parallel Graph Drawings". Currently at IBM Canada.

- Erik Demaine, 2001, co-supervised with J.I. Munro, thesis: "Folding and Unfolding", winner of Governor General's Gold Medal and a 2003 NSERC Doctoral Prize. E. Demaine is currently a Professor at MIT.

- Claudia Iturriaga, 1999, thesis: "Map Labeling Problems". C. Iturriaga works at Agfa.

- Naji Mouawad, 1996, thesis: "Interval Graphs as Visibility Graphs of Simple Polygons".

- Hari Titan, 1993, co-supervised with A. Vannelli, thesis: "MaxCuts in Circuit Layout, Bitmaps and Ising Models: Algorithms and Computational Experience".

Master's:

- Jack Spalding-Jamieson, January 2021 – present.

- Reza Bigdeli, September 2020 – present.

- Graeme Stroud, September 2019 – present.

- Owen Merkel, co-supervised with Therese Biedl, September 2018 – June 2020. Thesis: "Building a larger class of graphs for efficient reconfiguration of vertex colouring".

- Kshitij Jain, September 2016 – April 2018. Thesis: "Minimum Shared-Power Edge Cut". Currently Software Engineer, Machine Learning at Google

- Shikha Mahajan, September 2015 – June 2017. Thesis: "Interval Representations of Edge Weighted Graphs".

- Sweta Barman, September 2015 – June 2017. Essay.

- Stephen Kiazyk, September 2012 – October 2014. Thesis: "The Star Unfolding from a Geodesic Curve". Currently a Software Programmer at Brace Yourself Games

- Yizhe Zeng, September 2012 – September 2014. Thesis: "The Visibility Freeze-Tag Problem".

- Hella Hoffman, visiting grad student, September 2012 – April 2013

- Taylor Gordon, 2010, co-supervised with J.I. Munro, thesis: "Simultaneously Embedding Planar Graphs at Fixed Vertex Locations". Currently at Google.

- Mina Razaghpour, 2008, thesis: "The Steiner Ratio for the Obstacle-Avoiding Steiner Tree Problem". Currently works for Google.

- Steve Bahun, 2008, thesis: "Algorithms for Optimizing Search Schedules in a Polygon".

- Benjamin Lafreniere, 2008, thesis: "Packing Unit Disks". Currently a Research Scientist at Facebook Reality Labs.

- Brendan Lucier, 2006, co-supervised with J.I. Munro, thesis: "Unfolding and Reconstructing Polyhedra". Currently a Researcher at Microsoft Research.

- Luke Tanur, 2005, thesis: "A Geometric Approach to Pattern Matching in Polyphonic Music".

- Julie Sun, 1999, thesis: "Folding Orthogonal Polyhedra".

- Nora Sleumer, 1993, thesis: "Outerplanar Graphs as Proximity Graphs". N. Sleumer completed her PhD at ETH, Zurich.

- Prosenjit Bose, 1991, co-supervised by J.I. Munro, thesis: "Visibility in Simple Polygons". Joint publication in Canadian Conference on Computational Geometry, as listed above. P. Bose is currently a Professor at Carleton University.

- Paul Colley, 1991, thesis: "Visibility Graphs of Uni-monotone Polygons". Publication in Fourth Canadian Conference on Computational Geometry, "Recognizing visibility graphs of uni-monotone polygons". P. Colley completed his PhD at Queen's University.

- Michael Hutton, 1990, thesis: "Upward Planar Drawing of Single Source Acyclic Digraphs". Joint publication in ACM-SIAM Symposium on Discrete Algorithms, and SIAM J. Computing, as listed above. M. Hutton completed his PhD at U. of Toronto.

- Krishna Gopinathan, 1988, essay: "Decomposing a Graph Uniquely into Triconnected Components"

Undergraduates (since 2008):

- Qianye Zhou, May 2019 – August 2019. Problems in graph drawing and computational geometry.

- Nicholas Wray, May 2008 – August 2008. Graph morphing software.

External Examiner:

- Patrick Lin, "Equilibrium Graphs on the Flat Torus", University of Illinois Urbana-Champaign (UIUC), 2021.

- Mikkel Abrahamsen, "New results on classical problems in computational geometry in the plane", University of Copenhagen, 2017.

- P. Angelini, "On The Existence And Optimality Of Some Planar Graph Embeddings," Roma Tre University, Italy, 2010.

Service (Internal)

- School of Computer Science Advisory Committee on Appointments, August 2020—June 2021.

- Co-chair, School of Computer Science Advisory Committee on Appointments, August 2019—June 2020.

- Chair, School Council, July 2018—June 2019.

- School of Computer Science Annual Evaluation Committee, 2018.

- Graduate Committee, September 2017—August 2018.

- School of Computer Science Annual Evaluation Committee, 2017.

- Chair, School Council, July 2016—June 2017.

- Chair, School Council, July 2014—June 2015.

- Women in Computer Science Committee, July 2014—June 2015.

- School of Computer Science Advisory Committee on Appointments, August 2012—June 2014.

- Women in CS Committee (chair), August 2011—July 2012.

- School of Computer Science Promotion and Tenure Committee, July 2010—2011.

- School of Computer Science Graduate Committee, July 2010—2011.

- School of Computer Science Annual Evaluation Committee, 2009.

- School of Computer Science Commons Committee, September 2005—2009.

- Women in CS Committee, August 2008—2009.

- Women in CS Committee (chair), August 2007—August 2008.

- School of Computer Science Promotion and Tenure Committee, June 2007—April 2008.

- School of Computer Science Advisory Committee on Appointments, October 2006—May 2007.

- Math Faculty Promotion and Tenure Committee, September 2004—January 2007.

- Subcommittee on Graduate Course Evaluations, September 2004—June 2005.

- Graduate Committee, January 2002—August 2004.

- Web Committee, September 2002—present.

- Promotion and Tenure Committee, July 2002—May 2003.

- Interdisciplinary Grants Committee, Sept. 2000—July 2001.

- National Scholarship Competition Committee, spring 2001.

- Graduate Committee, Sept. 1999—July 2001.

- Promotion and Tenure Committee, July 1996—December 1998

- Curriculum Committee Sept. 1988—August 1991

- PhD Comprehensive Exam Committee, Sept. 1991—July 1993, Fall 1996.

- Nominating Committee for Chair of Computer Science, Sept. 1991—Dec. 1991

- First Year Course Evaluation Committee, July 1992—July 1993

- Graduate Committee, Sept. 1992—July 1993

Refereeing (of the last few years)

- 2020 and 2019. Journals: Discrete and Computational Geometry, J. Graph Algorithms and Applications (2), SIAM J. Computing, Graphs and Combinatorics, Computational Geometry, Int. J. Computational Geometry, J. Computational Geometry, J. of Information Processing (2) Conferences: Symp. on Discrete Algorithms (SODA), European Symp. on Algorithms (ESA), Mathematical Foundations of Computer Science (MFCS), Computer Science Symp. in Russia, Symp. on Computational Geometry (SoCG) (3), Algorithms and Data Structures Symposium (WADS)

- 2018 and 2017. Journals: Int. J. Computational Geometry and Applications (IJCGA) (2), Combinatorica, Graphs and Combinatorics, Journal of Discrete Algorithms (JDA). Conferences: Symposium on Computational Geometry (SoCG) (2), Symp. on Discrete Algorithms (SODA), Symp. on Algorithms and Data Structures (WADS), European Symp. on Algorithms (ESA), Int. Symp. on Graph Drawing and Network Visualization (GD), Mathematical Foundations of Computer Science (MFCS), Symp. on Theoretical Aspects of Computer Science (STACS).

- 2016. Journals: Discrete and Computational Geometry, Int. J. on Computational Geometry. Conferences: Int. Symp. on Graph Drawing and Network Visualization, Theory and Applications of Models of Computation (TAMC), Symp. on Computational Geometry.

- 2015. Book chapter for Origami 6, American Math Society. Journals: Algorithmica, Networks, Computer Aided Geometric Design, Journal of Computational Geometry. Conferences: International Workshop on Graph-Theoretic Concepts in Computer Science

Editor

- Journal of Computational Geometry, 2014 – present

- Journal of Graph Algorithms and Applications, 2015 – present

- also proceedings and special journal issues for the conferences I've co-chaired

Program Committees

Chair, Steering Committee, Organizer

- co-organizer Dagstuhl seminar 22062, Computation and Reconfiguration in Low-Dimensional Topological Spaces, postponed to 2022.

- Steering Committee, Algorithms and Data Structures Symposium (WADS), August 2021 – 2023

- Steering Committee, International Symposium on Graph Drawing and Network Visualization (GD), 2021 – 2024.

- co-chair, Algorithms and Data Structures Symposium (WADS), 2021.

- co-organized minisymposium, "Invitation to Reconfiguration" for Canadian Discrete and Algorithmic Mathematics (CanaDAM), 2021

- co-organized Dagstuhl seminar 19352, Computation in Low-Dimensional Geometry and Topology, August 25 - 30, 2019.

- co-chair, Symposium on Computational Geometry, 2016

- Steering Committee, Graph Drawing, 2014 - 2016.

- co-chair, Graph Drawing 2015

- organizer of mini-symposium for SIAM Conference on Discrete Math, 2000.

- co-chair of program committee, and local organizer for Fifth Canadian Conference on Computational Geometry, August, 1993, University of Waterloo.

PC member

- Symposium on Discrete Algorithms (SODA), 2022.

- International Symposium on Graph Drawing and Network Visualization (GD), 2021.

- Canadian Conference on Computational Geometry (CCCG), 2020.

- International Symposium on Graph Drawing and Network Visualization (GD), 2019.

- Canadian Conference on Computational Geometry (CCCG), 2018.

- Fun with Algorithms (FUN), 2018.

- International Symposium on Graph Drawing and Network Visualization (GD), 2017.

- 29th Canadian Conference on Computational Geometry (CCCG), 2017.

- Computational Geometry: Young Researchers Forum 2015

- NSERC Discovery Grant Evaluation Committee, 3 year term, 2012–2014.

- Graph Drawing 2014

- LATIN (Latin American Theoretical INformatics), 2014

- 25th Canadian Conference on Computational Geometry (CCCG), 2013.

- Graph Drawing 2012.

- Symposium on Discrete Algorithms (SODA), 2012.

- 23rd Canadian Conference on Computational Geometry (CCCG), 2011.

- International Workshop on Combinatorial Algorithms (IWOCA), 2011.

- Symposium on Computational Geometry (SoCG), 2011.

- 22st Canadian Conference on Computational Geometry, 2010.

- Fall Workshop on Computational Geometry 2009.

- 21st Canadian Conference on Computational Geometry, 2009.

- International Symposium on Algorithms and Computation (ISAAC) 2008.

- Symposium on Computational Geometry (SoCG), 2004

- 16th Canadian Conference on Computational Geometry, 2004.

- Graph Drawing 2002.

- 13th Canadian Conference on Computational Geometry, 2001.

- 12th Canadian Conference on Computational Geometry, 2000.

- Video Review, Symposium on Computational Geometry, 2000.

- Symposium on Computational Geometry, 1999.

- Graph Drawing 1998.

- Graph Drawing 1995.

- Fourth Canadian Conference on Computational Geometry, 1992.

Professional Memberships: ACM