

Vida Dujmović

Curriculum Vitae

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School of Electrical Engineering and Computer Science
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Education

PhD Computer Science 2004
McGill University, Montreal, Quebec NSERC Doctoral Prize
Thesis Title: *“Track layouts of graphs”*

MSc Computer Science 2000
McGill University, Montreal, Quebec
Thesis Title: *“Algorithmic aspects of planar map validation by a mobile agent”*

Honors Bachelor of Engineering 1996
Faculty of Electrical and Computer Engineering, University of Zagreb, Croatia
Major: Telecommunications and Computer Science
Thesis Title: *“Reliability of series-parallel telecommunication networks”*

Awards and Honours

- 2014: The Early Researcher Award (ERA), Ministry of Research and Innovation, Ontario.
- 2013: Faculty Research Achievement Award, Carleton University (includes an award of \$15,000).
- 2005: NSERC¹ Doctoral Prize. Awarded annually for the best PhD thesis and research in Canada, 1 of 4 awards (includes a monetary award of \$10,000).
- 2004: D.W. Ambridge Prize for McGill’s Outstanding PhD Graduate in Science and Engineering (includes a monetary award of \$1,000).
- 2004: Dean’s Honor List, PhD program, McGill University.
- 2000: Dean’s Honor List, MSc program, McGill University.
- 1996: Commendation for outstanding academic performance (awarded to one student in the department - class of 110), Faculty of Electrical and Computer Engineering, University of Zagreb, Croatia.

Funding and Research Fellowships received

- 2016-2021: NSERC Discovery Grant (\$46,000/year for 5 years).
- 2014-2019: The Early Researcher Award (ERA), Ministry of Research and Innovation, Ontario. (\$150,000 over 5 years).
- 2011-2016: NSERC Discovery Grant (\$34,000/year for 5 years).
- 2011: Endeavour Research Fellowship, Australian Government (\$23,000 for 6 months).
- 2009-2010: Ministry of Research and Innovation Fellowship, Ontario (\$50,000/year).
- 2006-2007: CRM²-ISM³ Postdoctoral Fellowship, (\$38,000/year).
- 2004-2006: NSERC Postdoctoral Fellowship (\$40,000/year for 2 years).
- 2004-2006: FQRNT⁴ Postdoctoral Fellowship (\$30,000/year for 2 years) - declined.

¹Natural Sciences and Engineering Research Council of Canada

²Centre de Recherches Mathématiques

³Institut des Sciences Mathématiques

⁴Le Fonds Québécois de la Recherche sur la Nature et les Technologies, formerly know as FCAR

- *Sept, Oct 2005 and May 2010*: FNRS⁵, Visiting Researcher Fellowship (\$7,500 for 3 months).
- *Fall 2004*: Consulat général de France à Québec, Visiting Researcher Fellowship (\$6,000 for 2 months).
- *2001-2003*: FQRNT Doctoral Scholarship (\$20,000/year for 3 years).
- *November 2000*: ACM-SIAM Student Travel Award (\$500).
- *1997-1998*: World University Service of Canada scholarship (\$12,000/year).

Academic Positions Held

University of Ottawa, School of Electrical Engineering & Computer Science, Ottawa, Ontario
Assistant Professor *September 2013 – Present*

Carleton University, School of Mathematics and Statistics &
 Department of Systems and Computer Engineering, Ottawa, Ontario
Assistant Professor *September 2012 – August 2013*

Carleton University, School of Computer Science, Ottawa, Ontario
Research Associate and Adjunct Research Professor *October 2010 – August 2012*

Carleton University, School of Computer Science, Ottawa, Ontario
Research Fellow *September 2007 – September 2010*

McGill University, Department of Mathematics and Statistics, Montreal, Quebec
CRM-ISM Postdoctoral Fellow *July 2006 – August 2007*

Carleton University, School of Computer Science, Ottawa, Ontario
NSERC Postdoctoral Fellow *April 2004 – June 2006*

Scholarly Academic Activities

Grant Committee:

July 2018– June 2021: Member, NSERC Computer Science Evaluation Committee

Editorial Board:

June 2009– Aug 2018: Editorial Board, Journal of Computational Geometry (JoCG)

Program Committees:

- *2019*: 7th Canadian Discrete and Algorithmic Mathematics Conference (CanaDAM 2019)
- *2018*: 35th International Symposium on Theoretical Aspects of Computer Science (STACS)
- *2017*: 25th International Symposium on Graph Drawing and Network Visualization (GD)
- *2017*: 23rd International Computing and Combinatorics Conference (COCOON)
- *2016*: 27th ACM-SIAM Symposium on Discrete Algorithms (SODA)
- *2016*: 2nd Conference on Algorithms and Discrete Applied Mathematics (CALDAM)
- *2015*: 23rd International Symposium on Graph Drawing and Network Visualization (GD)
- *2015*: The Computational Geometry Week: Workshops (CG Week)
- *2015*: 31st European Workshop on Computational Geometry (EuroCG)
- *2014*: 11th Latin American Theoretical Informatics Symposium (LATIN)
- *2014*: 24th Canadian Conference on Computational Geometry (CCCG)
- *2014*: 30th European Workshop on Computational Geometry (EuroCG)
- *2013*: 21st International Symposium on Graph Drawing (GD)

⁵Fonds de la Recherche Scientifique, Belgium

- 2013: 23rd Canadian Conference on Computational Geometry (CCCG)
- 2013: 19th Conference on Computing: the Australasian Theory Symposium (CATS)
- 2012: 27th Annual ACM Symposium on Computational Geometry (SoCG).
- 2011: 19th International Symposium on Graph Drawing (GD)
- 2011: 21st Canadian Conference on Computational Geometry (CCCG)
- 2008: 20th Canadian Conference on Computational Geometry (CCCG)
- 2007: 19th Canadian Conference on Computational Geometry (CCCG)
- 2006: 14th International Symposium on Graph Drawing (GD)

Publications (in reverse chronological order)

Articles Submitted to Refereed Journals

- [1] L. Devroye, V. Dujmović, A. Frieze, A. Mehrabian, P. Morin, and B. Reed, “Notes on growing a tree in a graph.” Submitted to *Random Structure and Algorithms* (RSA) in 2017.
- [2] V. Dujmović, and D. R. Wood, “Thickness and Antithickness of Graphs.” Submitted to *Journal of Computational Geometry* (JoCG) in 2017.
- [3] B. Aronov, V. Dujmović, P. Morin, A. Ooms, L. F. S. X. da Silveira, “More Turán-Type Theorems for Triangles in Convex Point Sets.” Submitted to *Electronic Journal of Combinatorics* (E-JC) in 2017.
- [4] G. Da Lozzo, V. Dujmović, F. Frati, and T. Mchedlidze, V. Roselli, “Drawing Planar Graphs with Many Collinear Vertices.” Submitted to *Journal of Computational Geometry* (JoCG) in 2017.
- [5] M. J. Bannister, W. E. Devanny, V. Dujmović, D. Eppstein, D. R. Wood. “Track Layouts, Layered Path Decompositions, and Leveled Planarity.” Submitted to *Algorithmica* in 2017.

Articles Accepted in Refereed Journals

- [6] V. Dujmović, G. Joret, P. Morin, S. Norin and D. R. Wood. “Orthogonal tree decompositions of graphs.” Accepted to *SIAM J. Discrete Math.* (SIDMA) in 2017.
- [7] V. Dujmović and F. Frati, “Stack and Queue Layouts via Layered Separators.” *Journal of Graph Algorithms and Applications* (JGAA), accepted in June 2017.
- [8] V. Dujmović, P. Morin, and D. R. Wood “Layered separators in minor-closed families with applications”. *Journal of Combinatorial Theory, Series B* (JCTB). To appear. Accepted 2017.
- [9] P. Bose, V. Dujmović, P. Morin, and L. Rioux-Maldague. “New Bounds for Facial Nonrepetitive Colouring”. *Graphs and Combinatorics*, vol. 33, no. 4, pp. 817–832, 2017.
- [10] V. Dujmović, D. Eppstein and D. R. Wood, “Structure of graphs with locally restricted crossings.” *SIAM J. Discrete Math.* (SIDMA), vol. 31, no. 2, pp. 805–824, 2017.
- [11] V. Dujmović, “The Utility of Untangling.” *Journal of Graph Algorithms and Applications* (JGAA), vol. 21, no. 1, pp. 121–134, 2017.
- [12] V. Dujmović, G. Joret, J. Kozik and D. R. Wood, “Nonrepetitive colouring via entropy compression” *Combinatorica*, vol. 36(6), pp: 661–686, 2016.
- [13] V. Dujmović, A. Sidiropoulos, and D. R. Wood, “3-Monotone Expanders.” *Chicago J. Theoretical Computer Science*, 16:Article 1, 2016.
- [14] V. Dujmović, “Graph Layouts via Layered Separators.” *Journal of Combinatorial Theory, Series B* (JCTB), vol. 110, pp. 79–89, 2015.

- [15] G. Aloupis, L. Barba, P. Carmi, V. Dujmović, F. Frati, and P. Morin, “Compatible connectivity-augmentation of planar disconnected graphs.” *Discrete & Computational Geometry*, (DCG), vol. 54(2), pp. 459–480, 2015.
- [16] V. Dujmović, P. Morin, and M. Smid. “Average stretch factor: How low does it go?” *Discrete & Computational Geometry*, vol. 53(2), pp. 296–326, 2015.
- [17] V. Dujmović, and P. Morin, “On Obstacle Numbers.” *Electronic Journal of Combinatorics*, 22(3):P3.1, 2015.
- [18] J. Barát, V. Dujmović, G. Joret, M. Payne, L. Scharf, D. Schymura, P. Valtr and D. R. Wood, “Empty pentagons in point sets with collinearities.” *SIAM J. Discrete Math.* (SIDMA) vol. 29(1), pp. 198–209, 2015.
- [19] P. Bose, V. Dujmović, N. Hoda, and P. Morin. “Visibility-monotonic polygon deflation.” *Contributions to Discrete Mathematics*, vol. 10(1), 2015.
- [20] V. Dujmović, P. Morin, and A. Sheffer, “Crossings in grid drawings.” *Electronic Journal of Combinatorics* 21(1): P1.41, 2014.
- [21] P. Bose, V. Dujmović, P. Morin, and M. Smid, “Robust Geometric Spanners”, *SIAM Journal on Computing* vol. 42(4), pp. 1720–1736, 2013.
- [22] V. Dujmović, D. J. Harvey, G. Joret, B. Reed, and D. R. Wood, “A linear-time algorithm for finding a complete graph minor in a dense graph.” *SIAM J. Discrete Math.* (SIDMA), 27(4): 1770–1774 (2013)
- [23] V. Dujmović, F. Frati, G. Joret, and D. R. Wood, “Nonrepetitive colourings of planar graphs with $O(\log n)$ colours.” *Electronic J. Combinatorics*, vol. 20(1):P51, 2013.
- [24] V. Dujmović, and S. Langerman, “A Center Transversal Theorem for Hyperplanes and Applications to Graph Drawing”. *Discrete and Computational Geometry*, vol. 49(1), pp 74–88, 2013.
Invited to a special issue of 27th ACM Symposium on Computational Geometry, SoCG 2011.
- [25] G. Aloupis, P. Bose, V. Dujmović, C. Gray, S. Langerman, and B. Speckmann “Guarding Fat Polygons and Triangulating Guarded Polygons.” *Computational Geometry: Theory and Applications* (CGTA), 47(2): 296–306, 2014.
- [26] P. Bose, K. Douieb, V. Dujmović, J. Howat, P. Morin, “Fast Local Searches and Updates in Bounded Universes”. *Computational Geometry: Theory and Applications*, vol. 46(2), pp 181–189, 2013.
- [27] V. Dujmović, W. Evans, S. Lazard, W. Lenhart, G. Liotta, D. Rappaport and S. Wismat, “On Point-sets that Support Planar Graphs”. *Computational Geometry: Theory and Applications*, vol. 46(1), pp. 29–50, 2013.
- [28] V. Dujmović, G. Joret, and D. R. Wood, “An Improved Bound for First-Fit on Posets Without Two Long Incomparable Chains.” *SIAM Journal on Discrete Mathematics* (SIDMA), vol. 26(3), pp. 1068–1075, 2012.
- [29] G. Biau, L. Devroye, V. Dujmović and A. Krzyzak, “An Affine Invariant k-Nearest Neighbor Regression Estimate.” *Journal of Multivariate Analysis*, vol. 112, pp. 24–34, 2012.
- [30] P. Bose, V. Dujmović, F. Hurtado, J. Iacono, S. Langerman, H. Meijer, V. Sacristán, M. Saumell, and D.R. Wood, “Proximity graphs: E , δ , Δ , χ , ω .” *International Journal of Computational Geometry and Applications*, vol. 22(5), pp. 439–469, 2012,
- [31] D. Charlton, E. D. Demaine, M. L. Demaine, V. Dujmović, P. Morin, and R. Uehara, “Ghost Chimneys”. *International Journal of Computational Geometry and Applications*, vol. 22(3), pp. 207–214, 2012.
- [32] S. Collette, V. Dujmović, J. Iacono, S. Langerman, and P. Morin “Entropy, triangulation, and point location in planar subdivisions”. *ACM Transactions on Algorithms*, vol. 8(3), article num. 29, 2012.

- [33] V. Dujmović, J. Howat, and P. Morin, “Biased Range Trees”. *Algorithmica*, vol. 62(1-2), pp. 21-37, 2012.
- [34] P. Bose, K. Douieb, V. Dujmović, and J. Howat, “Layered Working-Set Trees”, *Algorithmica*. vol. 63(1), pp. 476–489, 2012.
- [35] D. Chen, L. Devroye, V. Dujmović, and P. Morin, “Memoryless Routing in Convex Subdivisions: Random Walks Are Optimal”. *Computational Geometry: Theory and Applications*, vol. 45(4), pp. 178-185, 2012.
- [36] B. Ballinger, N. Benbernou, P. Bose, M. Damian, E. D. Demaine, V. Dujmović, R. Flatland, F. Hurtado, J. Iacono, A. Lubiw, P. Morin, V. Sacristán, D. Dubrulle, and R. Uehara. “Coverage with k -transmitters in the presence of obstacle”. *Journal of Combinatorial Optimization*. 25(2): 208-233 (2013)
- [37] V. Dujmović, G. Fijavz, G. Joret, T. Sulanke and D. R. Wood, “On the maximum number of cliques in a graph embedded in a surface”. *European Journal of Combinatorics*, vol. 32(8), pp. 1244–1252, 2011.
- [38] V. Dujmović, and D. R. Wood, “On the book thickness of k -trees”, *Discrete Maths. and Theoretical Computer Science*, vol. 13.3, 2011.
- [39] V. Dujmović, J. Gudmundsson, P. Morin, and T. Wolle, “Notes on large angle crossing graphs”, *Chicago Journal of Theoretical Computer Science*. Article 4, 2011. Special issue of selected papers from CATS2010.
- [40] P. Bose, O. Cheong, and V. Dujmović, “A note on the perimeter of fat objects”. *Computational Geometry: Theory and Applications*, vol. 44(1), pp. 1–8, 2010.
- [41] Z. Abel, B. Ballinger, P. Bose, S. Collette, V. Dujmović, F. Hurtado, S. D. Kominers, S. Langerman, A. Pór, and D. R. Wood, “Every large point set contains many collinear points or an empty pentagon”. *Graphs and Combinatorics*, vol. 27(1), pp. 47–60, 2011.
- [42] P. Bose, V. Dujmović, F. Hurtado, S. Langerman, P. Morin, and D. R. Wood, “A polynomial bound for untangling geometric planar graphs”. *Discrete & Computational Geometry*, vol. 42(4), pp. 570–585, 2009.
- [43] P. Carmi, V. Dujmović, P. Morin, and D. R. Wood, “Distinct distances in graph drawings”. *The Electronic Journal of Combinatorics*, 15:R107, 2008.
- [44] P. Bose, V. Dujmović, D. Krizanc, S. Langerman, P. Morin, D. R. Wood and S. Wuhler, “A characterization of the degree sequences of 2-Trees”, *Journal of Graph Theory*, vol. 58(3), pp. 191-209, 2008.
- [45] V. Dujmović, and D. R. Wood, “Graph treewidth and geometric thickness parameters”, *Discrete & Computational Geometry*, vol. 37(4), pp. 641–670, 2007.
- [46] P. Bose, V. Dujmović, F. Hurtado and P. Morin, “Connectivity-preserving transformations of binary Images”, *Computer Vision and Image Understanding*. Special issue dedicated to the memory of Azriel Rosenfeld, vol. 6(2), pp. 313-323, 2008.
- [47] V. Dujmović, M. Fellows, M. Kitching and G. Liotta and C. McCartin, N. Nishimura, P. Ragde, F. Rosemand, S. Whitesides, and D. R. Wood, “On the parameterized complexity of layered graph drawing”, *Algorithmica*, vol. 52(2), pp. 267-292, 2008.
- [48] V. Dujmović, D. Eppstein, M. Suderman and D. R. Wood, “Drawings of planar graphs with few slopes and segments”, *Computational Geometry: Theory and Applications*, vol. 38, pp. 194–212, 2007.

- [49] V. Dujmović, M. Suderman and D. R. Wood, “Graph drawings with few slopes”, *Computational Geometry: Theory and Applications*, vol. 38, pp. 181–193, 2007.
- [50] V. Dujmović, H. Fernau and M. Kaufmann, “Fixed parameter algorithms for one-sided crossing minimization – revisited”, *Journal of Discrete Algorithms*, vol. 6(2), Issue 2, 313–323, 2008.
- [51] H. Brönnimann, O. Devillers, V. Dujmović, H. Everett, M. Glisse, X. Goaoc, S. Lazard, H.-S. Na, S. Whitesides, “On the number of maximal free line segments tangent to arbitrary three-dimensional convex polyhedra”, *SIAM Journal on Computing*, vol. 37(2), pp. 522–551, 2007.
- [52] O. Devillers, V. Dujmović, H. Everett, S. Hornus, S. Whitesides and S. Wismath, “Maintaining visibility information of planar point sets with a moving viewpoint”, *International Journal of Computational Geometry and Applications*, vol. 17(4), pp. 297–304, 2007.
- [53] V. Dujmović, and D. R. Wood, “Upward three-dimensional grid drawings of graphs”, *Order*, vol. 23, pp. 1–20, 2006.
- [54] P. Bose, V. Dujmović and D. R. Wood, “Induced subgraphs of bounded degree and bounded treewidth”, *Contributions to Discrete Mathematics*, vol 1(1), pp. 88–105, 2006.
- [55] V. Dujmović, and D. R. Wood, “Stacks, queues and tracks: Layouts of graph subdivisions”, *Discrete Mathematics and Theoretical Computer Science*, vol 7, pp. 155–202, 2005.
- [56] V. Dujmović, P. Morin, and D. R. Wood, “Layout of graphs with bounded tree-width”, *SIAM Journal on Computing*, vol. 34 (3), pp. 553–579, 2005.]
- [57] V. Dujmović, M. Fellows, M. Hallett, M. Kitching, G. Liotta, C. McCartin, N. Nishimura, P. Ragde, F. Rosamond, M. Suderman, S. Whitesides, and D. R. Wood, “A fixed-parameter approach to two layer planarization”, *Algorithmica*, vol 45. pp. 159-182, 2006.
- [58] V. Dujmović, A. Pór, and D. R. Wood, “Track layouts of graphs”, *Discrete Mathematics and Theoretical Computer Science*, vol. 6(2), pp. 497–522, 2004.
- [59] V. Dujmović, and D. R. Wood, “On linear layouts of graphs”, *Discrete Mathematics and Theoretical Computer Science*, vol. 6(2), pp. 339–358, 2004.
- [60] V. Dujmović and S. Whitesides, “An efficient fixed Parameter tractable algorithm for 1-sided crossing minimization”, *Algorithmica*, vol. 40(1), pp. 15-31, 2004.
- [61] O. Devillers, V. Dujmović, H. Everett, X. Goaoc, S. Lazard, H.-S. Na, and S. Petitjean. “The expected number of 3D visibility events is linear”, *SIAM Journal on Computing*, vol. 32(6), pp. 1586–1620, 2003.
- [62] O. Aichholzer, C. Cortés, V. Dujmović, E. Demaine, J. Erickson, H. Meijer, M. Overmars, B. Palop, S. Ramaswami, and G. Toussaint, “Flipturning polygons”, *Discrete & Computational Geometry*, vol. 28, pp. 231–253, 2002.

Articles in Edited Books

- [63] V. Dujmović and S. Whitesides, “Three-dimensional drawing algorithms”, Chapter in *Handbook of Graph Drawing and Visualization*, Roberto Tamassia Editor, CRC Press, 455–489, 2013.
- [64] V. Dujmović, and D. R. Wood, “Three-dimensional grid drawings with sub-quadratic volume”, In *Towards a Theory of Geometric Graphs* (János Pach, ed.), Contemporary Mathematics, vol. 342, pp. 55–66, American Mathematical Society, 2004.

Articles Published in Refereed Conference Proceedings

- [65] T. Biedl, M. Derka, V. Dujmović and P. Morin. “EPG-representations with small grid-size.” In *Proceedings of the International Symposium Graph Drawing and Network Visualization* (GD 2017). To appear.
- [66] P. Bose, J-L. De Carufel, V. Dujmović and F. Paradis, “ Local Routing in Spanners Based on WSPDs.” In *Proceedings of the International Symposium on Algorithms and Data Structures* (WADS 2017). vol. 10389 of LNCS, pp. 205–217, 2017.
- [67] V. Dujmović and F. Frati, “Stack and Queue Layouts via Layered Separators”. In *Proceedings of the International Symposium on Graph Drawing and Network Visualization* (GD 2016), pp. 511–518, 2016.
- [68] G. Da Lozzo, V. Dujmović, F. Frati, and T. Mchedlidze, V. Roselli, “Drawing Planar Graphs with Many Collinear Vertices”. In *Proceedings of the International Symposium on Graph Drawing and Network Visualization* (GD 2016), pp. 152–165, 2016.
- [69] M. J. Bannister, W. E. Devanny, V. Dujmović, D. Eppstein, and D. R. Wood, “Track Layout Is Hard.” In *Proceedings of the International Symposium on Graph Drawing and Network Visualization* (GD 2016), pp. 499–510, 2016.
- [70] V. Dujmović, “On Utility of Untangling.” In *Proceedings of the International Symposium on Graph Drawing and Network Visualization* (GD 2015), pp. 321–332, 2015.
- [71] V. Dujmović, D. Eppstein, and D. R. Wood, “Genus, Treewidth, and Local Crossing Number.” In *Proceedings of the International Symposium on Graph Drawing and Network Visualization* (GD 2015), pp. 87–98, 2015.
- [72] G. Aloupis, L. Barba, P. Carmi, V. Dujmović, F. Frati, and P. Morin, “Compatible connectivity-augmentation of planar disconnected graphs.” In *Proceedings of the 26th ACM-SIAM Symposium on Discrete Algorithms* (SODA 2015), pp. 486–496, 2015.
- [73] V. Dujmović, P. Morin, and D. R. Wood, “Layered Separators for Queue Layouts, 3D Graph Drawing and Nonrepetitive Coloring”. In *Proceedings of the IEEE Annual Symposium on Foundations of Computer Science*. (FOCS 2013): 280–289
- [74] P. Bose, V. Dujmović, P. Morin, and M. Smid, “Robust Geometric Spanners.” In *Proceedings of the 29th ACM Symposium on Computational Geometry* (SoCG’13), pp. 449–458, 2013.
- [75] G. Biau, L. Devroye, V. Dujmović and A. Krzyzak, “An Affine Invariant k-Nearest Neighbor Regression Estimate.” In *Proceedings of the IEEE International Symposium on Information Theory* (ISIT’12), pp. 1445–1447, 2012.
- [76] V. Dujmović, and S. Langerman, “A Center Transversal Theorem for Hyperplanes and Applications to Graph Drawing”. In *Proceedings of the 27th ACM Symposium on Computational Geometry* (SoCG’11), pp. 117–124, 2011. Invited to a special issue of *Discrete & Computational Geometry*.
- [77] V. Dujmovic, W. Evans, S. Lazard, W. Lenhart, G. Liotta, D. Rappaport and S. Wismat, “On Point-sets that Support Planar Graphs”, In *Proceedings of the 19th International Symposium on Graph Drawing*, (GD’11). vol. 7034 of LNCS,, pp. 64–74, 2012.
- [78] P. Bose, K. Douieb, V. Dujmović, and R. Fagerberg, “An $O(\log \log n)$ -Competitive Binary Search Tree with Optimal Worst-Case Access Times”. In *Proceedings of the 12th Scandinavian Symposium and Workshops on Algorithm Theory*, (SWAT’10), vol. 6139 of LNCS, pp. 38–49, 2010.
- [79] V. Dujmović, W. Evans, S. Kobourov, G. Liotta, C. Weibel, and S. Wismath. “On Graphs Supported by Line Sets”. In *Proceedings of the 18th International Symposium on Graph Drawing*, (GD’10), vol. 6502 of LNCS, pp. 177–182, 2011.
- [80] P. Bose, K. Douieb, V. Dujmović, and J. Howat, “Layered Working-Set Trees”. In *Proceedings of the Latin American Theoretical Informatics Symposium* (LATIN’10), vol. 6034 of LNCS, pp. 686–696, 2010.

- [81] V. Dujmović, J. Gudmundsson, P. Morin, and T. Wolle, “Notes on large angle crossing graphs”. In *Computing: The Australasian Theory Symposium (CATS’10)*, vol. 109, pp. 19–24, 2010.
- [82] B. Ballinger, N. Benbernou, P. Bose, M. Damian, E. D. Demaine, V. Dujmović, R. Flatland, F. Hurtado, J. Iacono, A. Lubiw, P. Morin, V. Sacristan, D. Dubrule, and R. Uehara. “Coverage with k -transmitters in the presence of obstacle”. In *Proceedings of the 4th Annual International Conference on Combinatorial Optimization and Applications (COCOA’10)*, vol. 6509 of LNCS, pp. 1–15, 2010. Invited to special issue of *Journal of Combinatorial Optimization*.
- [83] V. Dujmović, J. Howat, and P. Morin, “Biased Range Trees”. In *Proceedings of the 20th ACM-SIAM Symposium on Discrete Algorithms (SODA’09)*, pp. 486–496, 2009.
- [84] V. Dujmović, K. Kawarabayashi, B. Mohar and D. R. Wood, “Improved upper bounds on the crossing number”. In *Proceedings of the 24th ACM Symposium on Computational Geometry (SoCG’08)*, pp. 375–384, 2008.
- [85] S. Collette, V. Dujmović, J. Iacono, S. Langerman, and P. Morin, “Distribution-sensitive point location in convex subdivisions”, In *Proceedings of the 19th ACM-SIAM Symposium on Discrete Algorithms (SODA’08)*, pp. 912–921, 2008.
- [86] P. Bose, V. Dujmović, F. Hurtado, S. Langerman, P. Morin, and D. R. Wood, “A polynomial bound for untangling geometric planar graphs”. In *Proceedings of Topological and Geometric Graph Theory (TGGT’08)*. *Electronic Notes in Discrete Mathematics*, vol. 31, pp. 213–218, 2008.
- [87] P. Bose, V. Dujmović, D. Krizanc, S. Langerman, P. Morin, D. R. Wood and S. Wuhler, “A characterization of the degree sequences of 2-trees”, In *Proceedings of the 4th Workshop on Analytic Algorithmics and Combinatorics (ANALCO’07)*, 232–241, 2007.
- [88] V. Dujmović, and D. R. Wood, “Graph treewidth and geometric thickness parameters”, In *Proceedings of the 13th International Symposium on Graph Drawing (GD’05)*, vol.3843 of LNCS, pp.129–140, 2006.
- [89] P. Bose, V. Dujmović and D. R. Wood, “Induced subgraphs of bounded degree and bounded treewidth”, In *Proceedings of the 31st Workshop on Graph Theoretic Concepts in Computer Science (WG’05)*, vol. 3787 of LNCS, pp. 175–186, 2005.
- [90] V. Dujmović and D. R. Wood, “Layouts of graph subdivisions”, In *Proceedings of the 12th International Symposium on Graph Drawing (GD’04)*, vol. 3383 of LNCS, pp. 133–143, 2004.
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Event Organization:

- 1st, 2nd, 3rd, 4th, 5th and 6th International Workshop on Geometry and Graphs, March 2013, 2014, 2015, 2016, 2017 and 2018 at Bellairs Research Institute of McGill University, Holetown, Barbados. (35+ participants)
- 29th Canadian Conference on Computational Geometry (CCCG), July 2017.
- Fields Institute’s Ottawa-Carleton Discrete Mathematics Days, May 1-2, 2014.
- 9th International Workshop on Probability, Combinatorics and Geometry: April 4-11, 2014 at Bellairs Research Institute McGill University’s, Holetown, Barbados.
- The American Mathematical Society (AMS), workshop on Discrete and Computational Geometry, June 10-16, 2012 at Snowbird, Utah, USA. The workshop, including the participation of 40 selected phd students and postdocs is fully funded by AMS.
- Fields Workshop on Discrete and Computational Geometry, August 13-17, 2012 at Carleton University, Ottawa, Canada.

Participation in Invitational Research Workshops

- *Aug 2017*: Geometric and Structural Graph Theory at Banff International Research Station for Mathematical Innovation and Discovery (BIRS), organized by Bojan Mohar, Janos Pach, and Paul Seymour.
- *2012–2017*: Workshop on Graph Minors, Bellairs Research Institute of McGill University, organized by Paul Seymour and Bruce Reed
- *October, 2013*: Geometric and topological graph theory at Banff International Research Station for Mathematical Innovation and Discovery (BIRS), organized by Bojan Mohar, Janos Pach, Paul Seymour, Robin Thomas, Carsten Thomassen.
- *February, 2012*: Models of sparse graphs and network algorithms at Banff International Research Station for Mathematical Innovation and Discovery (BIRS), organized by Nicolas Broutin, Luc Devroye and Gabor Lugosi.
- *September 2008 & 2010*: Graph Minors Workshop at Banff International Research Station for Mathematical Innovation and Discovery (BIRS), organized by Ken-ichi Kawarabayashi, Bojan Mohar, Bruce Reed, and Paul Seymour.
- *2006–2017*: Workshop on Probability and Combinatorics, Bellairs Research Institute of McGill University, organized by Luc Devroye.
- *2000–2011*: Annual Winter Workshop on Computational Geometry, Bellairs Research Institute of McGill University, organized by Godfried Toussaint.
- *June, 2009*: International Workshop on Discrete and Computational Geometry, JAIST (Japan Advanced Institute of Science and Technology), Japan, organized by Tetsuo Asano.
- *June, 2008*: The 11th Korean Workshop on Computational Geometry, POSTECH, South Korea, organized by Hee-Kap Ahn, Otfried Cheong, Antoine Vigneron.
- *February 2008*: The 2nd Workshop on Graph Searching, Theory and Applications (GRASTA), Brazil, organized by Claudia Sales and Bruce Reed.
- *July, 2005*: Carleton-Eindhoven Workshop on Computational Geometry, organized by Prosenjit Bose and Mark de Berg.
- *May, 2004*: The 3rd McGill-INRIA Workshop on Computational Geometry in Computer Graphics, Ile d' Oléron, France, organized by Hazel Everett and Sylvain Lazard.
- *1999–2004*: Annual workshops at the Bellairs Research Institute of McGill University, organized by Sue Whitesides.
- *2003–2004*: 2nd and 3rd Cuban Workshop on Algorithms and Data Structures, Universidad de la Habana, Cuba, organized by Antonio Mesa and Godfried Toussaint.
- *May, 2002*: NSF/CBMS Regional Research Conference on Geometric Graph Theory, University of North Texas, organized by Farhad Shahrokhi.

Invited talks at Conferences and Extended University Visits

- *May, 2018*: Invited lecturer at intensive Research Program on Discrete, Combinatorial and Computational Geometry at CRM (Centre de Recerca Matemàtica), Barcelona, Spain.
- *Feb, 2016*: Invited short PhD course (6 lectures) at Roma Tre University, Rome, Italy.
- *April, 2015*: Invited speaker at *AWM Research Symposium 2015*, University of Maryland College Park, College Park, USA.
- *Dec, 2013*: Plenary speaker at *37th Australasian Conference on Combinatorial Mathematics and Combinatorial Computing*, The University of Western Australia, Perth, Australia.
- *November 2013*: Monash University, Melbourne, Australia, visting David R. Wood.
- *May, 2012*: Invited speaker at *Graph Theory @ Georgia Tech*: Conference Honoring the 50th Birthday of Robin Thomas, Georgia Tech, Atlanta.

- *May, 2012*: Invited speaker at *The Ottawa Mathematics Conference*, University of Ottawa.
- *October 2011 to February 2012*: University of Melbourne, Melbourne, Australia, visting David R. Wood.
- *April 2011*: Tufts University, Boston, USA, visiting Diane Souvaine.
- *May 2010*: Université Libre de Bruxelles (ULB), Brussels, Belgium, visting Stefan Langerman.
- *December 2008*: Invited speaker at Workshop on Algorithmic Mathematics at CMS Winter Meeting, Ottawa.
- *September 2007*: Invited speaker at Discrete Mathematics Days of the Northeast, Middlebury, USA.
- *October 2006*: Freie University, Berlin, Germany, visiting Helmut Alt and Christian Knauer.
- *September 2006 and June 2011*: Universitat Politècnica de Catalunya, Spain, visiting Ferran Hurtado and David R. Wood.
- *September to November 2005*: Université Libre de Bruxelles (ULB), Brussels, Belgium, visting Stefan Langerman.
- *October to December 2004*: INRIA-Sophia Antipolis, France, visiting Frederic Havet.
- *September and October 2001*: INRIA-Lorraine, Nancy, France, visiting Hazel Everett and Sylvain Lazard.