

Gwenaël Joret – C.V.
(as of December 9, 2022)

Contact information

Université Libre de Bruxelles
Computer Science Department
Campus de la Plaine, CP 212
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Personal information

Nationality: Belgian

Positions

2016 - current	Associate Professor (<i>Chargé de Cours</i>), Université Libre de Bruxelles (ULB)
2012 - 2016	Assistant Professor (<i>Premier Assistant</i>), ULB ¹
2013 - 2014	DECRA Research Fellow of the Australian Research Council, The University of Melbourne
2008 - 2012	Postdoctoral Researcher of the Belgian Fund for Scientific Research (FNRS), ULB
2004 - 2008	Research Fellow of the FNRS, ULB

Education

2007 Ph. D. in Computer Science, ULB

Thesis: *Entropy and Stability in Graphs*

Advisors: Jean Cardinal and Jean-Paul Doignon

2004 M. Sc. in Computer Science, La Plus Grande Distinction (*Greatest Honours*), ULB

Publications

All papers are available from <https://gjoret.be/>

1. M. Aprile, S. Fiorini, T. Huynh, G. Joret, and D. R. Wood. Smaller extended formulations for spanning tree polytopes in minor-closed classes and beyond. *Electronic Journal of Combinatorics*, 28, no. 4:P4.47, 2021.
2. G. Joret and P. Micek. Improved bounds for weak coloring numbers. *Electronic Journal of Combinatorics*, 29, no. 1:P1.60, 2022.
3. C. Groenland, G. Joret, W. Nadara, and B. Walczak. Approximating pathwidth for graphs of small treewidth. *Transactions on Algorithms*, to appear.
4. G. Joret, P. Micek, B. Reed, and M. Smid. Tight bounds on the clique chromatic number. *Electronic Journal of Combinatorics*, 28, no. 3:P3.51, 2021.
5. L. Dubois, G. Joret, G. Perarnau, M. Pilipczuk, and F. Pitois. Two lower bounds for p -centered colorings. *Discrete Mathematics and Theoretical Computer Science*, 22, no. 4, 2020.
6. T. Huynh, G. Joret, and D. R. Wood. Subgraph densities in a surface. *Combinatorics, Probability, and Computing*, 31, no. 5:812–839, 2022.
7. V. Dujmović, L. Esperet, C. Gavaille, G. Joret, P. Micek, and P. Morin. Adjacency labelling for planar graphs (and beyond). *Journal of the ACM*, 68, no. 6:Article 42, 2021.

¹On leave at The University of Melbourne during the 2013–2014 academic year

8. T. Huynh, G. Joret, P. Micek, M. T. Seweryn, and P. Wollan. Excluding a ladder. *Combinatorica*, 42:405–432, 2022.
9. Z. Dvořák, T. Huynh, G. Joret, C.-H. Liu, and D. R. Wood. Notes on graph product structure theory. In P. C. T. T. Wood D.R., de Gier J., editor, *2019-20 MATRIX Annals*, volume 4 of *MATRIX Book Series*, pages 513–533. Springer, 2021.
10. N. Bousquet, W. C. van Batenburg, L. Esperet, G. Joret, W. Lochet, C. Muller, and F. Pirot. Packing and covering balls in graphs excluding a minor. *Combinatorica*, 41:299–318, 2021.
11. W. C. van Batenburg, G. Joret, and A. Ulmer. Erdős-pósa from ball packing. *SIAM Journal on Discrete Mathematics*, 34, no. 3:1609–1619, 2020.
12. W. C. van Batenburg, J. Goedgebeur, and G. Joret. Large independent sets in triangle-free cubic graphs: beyond planarity. *Advances in Combinatorics*, pages P7, 45 pp, 2020.
13. M. Bonamy, P. Charbit, O. Defrain, G. Joret, A. Lagoutte, V. Limouzy, L. Pastor, and J.-S. Sereni. Revisiting a theorem by folkman on graph colouring. *Electronic Journal of Combinatorics*, 27, no. 1:P1.56, 2020.
14. V. Dujmović, L. Esperet, G. Joret, B. Walczak, and D. R. Wood. Planar graphs have bounded nonrepetitive chromatic number. *Advances in Combinatorics*, pages P5, 11 pp, 2020.
15. V. Dujmović, G. Joret, P. Micek, P. Morin, T. Ueckerdt, and D. R. Wood. Planar graphs have bounded queue-number. *Journal of the ACM*, 67, no. 4:Article 22, 2020.
Also in: Proceedings of the 60th Annual IEEE Symposium on Foundations of Computer Science (FOCS 2019).
16. S. Fiorini, T. Huynh, G. Joret, and C. Muller. Unavoidable minors for graphs with large ℓ_p -dimension. *Discrete and Computational Geometry*, 66:301–343, 2021.
17. V. Dujmović, D. Eppstein, G. Joret, P. Morin, and D. R. Wood. Minor-closed graph classes with bounded layered pathwidth. *SIAM Journal on Discrete Mathematics*, 34, no. 3:1693–1709, 2020.
18. W. C. van Batenburg, T. Huynh, G. Joret, and J.-F. Raymond. A tight Erdős-Pósa function for planar minors. *Advances in Combinatorics*, pages P2, 33 pp, 2019.
Also in: Proceedings of the 30th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA 2019).
19. G. Joret and W. Lochet. Progress on the adjacent vertex distinguishing edge colouring conjecture. *SIAM Journal on Discrete Mathematics*, 34, no. 4:2221–2238, 2020.
20. T. Huynh, G. Joret, P. Micek, and D. R. Wood. Seymour’s conjecture on 2-connected graphs of large pathwidth. *Combinatorica*, 40:839–868, 2020.
21. P. Aboulker, S. Fiorini, T. Huynh, G. Joret, J.-F. Raymond, and I. Sau. A tight Erdős-Pósa function for wheel minors. *SIAM Journal on Discrete Mathematics*, 32, no. 3:2302–2312, 2018.
22. G. Joret, P. Micek, P. O. de Mendez, and V. Wiechert. Nowhere dense graph classes and dimension. *Combinatorica*, 39, no. 5:1055–1079, 2019.
23. S. Felsner, G. Joret, P. Micek, W. T. Trotter, and V. Wiechert. Burling graphs, chromatic number, and orthogonal tree-decompositions. *Electronic Journal of Combinatorics*, 25, no. 1:P1.35, 2018.
24. V. Dujmović, G. Joret, P. Morin, S. Norin, and D. R. Wood. Orthogonal tree decompositions of graphs. *SIAM Journal on Discrete Mathematics*, 32, no. 2:839–863, 2018.
25. G. Joret, P. Micek, and V. Wiechert. Planar posets have dimension at most linear in their height. *SIAM Journal on Discrete Mathematics*, 31, no. 4:2754–2790, 2018.

26. S. Fiorini, G. Joret, and O. Schaudt. Improved approximation algorithms for hitting 3-vertex paths. *Mathematical Programming*, 182:355–367, 2020.
Also in: Proceedings of the *18th Conference on Integer Programming and Combinatorial Optimization (IPCO 2016)*.
27. G. Berbeglia and G. Joret. Assortment optimisation under a general discrete choice model: A tight analysis of revenue-ordered assortments. *Algorithmica*, 82, no. 4:681–720, 2020.
Also in: Proceedings of the *18th ACM conference on Economics and Computation (EC 2017)*.
28. G. Joret and D. R. Wood. k_4 -minor-free induced subgraphs of sparse connected graphs. *SIAM Journal on Discrete Mathematics*, 32, no. 1:123–147, 2018.
29. S. Fiorini, T. Huynh, G. Joret, and K. Pashkovich. Smaller extended formulations for the spanning tree polytope of bounded-genus graphs. *Discrete and Computational Geometry*, 57, no. 3:757–761, 2017.
30. A. Gagol, G. Joret, J. Kozik, and P. Micek. Pathwidth and nonrepetitive list coloring. *Electronic Journal of Combinatorics*, 23, no. 4:P4.40, 2016.
31. S. Fiorini, T. Huynh, G. Joret, and A. Varvitsiotis. The excluded minors for isometric realizability in the plane. *SIAM Journal on Discrete Mathematics*, 31, no. 1:438–453, 2017.
32. G. Joret, P. Micek, and V. Wiechert. Sparsity and dimension. *Combinatorica*, 38, no. 5:1129–1148, 2018.
Also in: Proceedings of the *27th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA 2016)*.
33. G. Joret, P. Micek, W. T. Trotter, R. Wang, and V. Wiechert. On the dimension of posets with cover graphs of treewidth 2. *Order*, 34, no. 2:185–234, 2017.
34. G. Joret, P. Micek, K. G. Milans, W. T. Trotter, B. Walczak, and R. Wang. Tree-width and dimension. *Combinatorica*, 36, no. 4:431–450, 2016.
35. G. Joret and A. Vetta. Reducing the rank of a matroid. *Discrete Mathematics and Theoretical Computer Science*, 17, no. 2:143–156, 2015.
36. J. Cardinal and G. Joret. Hitting all maximal independent sets of a bipartite graph. *Algorithmica*, 72, no. 2:359–368, 2015.
37. 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 Journal on Discrete Mathematics*, 29, no. 1:198–209, 2015.
38. V. Dujmović, G. Joret, J. Kozik, and D. R. Wood. Nonrepetitive colouring via entropy compression. *Combinatorica*, 36, no. 6:661–686, 2016.
39. L. Esperet and G. Joret. Coloring planar graphs with three colors and no large monochromatic components. *Combinatorics, Probability, and Computing*, 23, no. 4:551–570, 2014.
40. G. Joret, C. Paul, I. Sau, S. Saurabh, and S. Thomassé. Hitting and harvesting pumpkins. *SIAM Journal on Discrete Mathematics*, 103, no. 1:1363–1390, 2014.
Also in: Proceedings of the *19th Annual European Symposium on Algorithms (ESA 2011)*.
41. N. E. Clarke, S. Fiorini, G. Joret, and D. O. Theis. A note on the Cops & Robber game on graphs embedded in non-orientable surfaces. *Graphs and Combinatorics*, 30, no. 1:119–124, 2014.
42. S. Fiorini, G. Joret, and D. R. Wood. Excluded forest minors and the Erdős-Pósa property. *Combinatorics, Probability, and Computing*, 22, no. 5:700–721, 2013.

43. 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 Journal on Discrete Mathematics*, 27, no. 4:1770–1774, 2013.
44. V. Dujmović, F. Frati, G. Joret, and D. R. Wood. Nonrepetitive colourings of planar graphs with $O(\log n)$ colours. *Electronic Journal of Combinatorics*, 20, no. 1:P51, 2013.
45. L. Esperet and G. Joret. Boxicity of graphs on surfaces. *Graphs and Combinatorics*, 29, no. 3:417–427, 2013.
46. G. Joret and D. R. Wood. Complete graph minors and the graph minor structure theorem. *Journal of Combinatorial Theory, Series B*, 103, no. 1:61–74, 2013.
47. J. Cardinal, E. D. Demaine, S. Fiorini, G. Joret, I. Newman, and O. Weimann. The Stackelberg minimum spanning tree game on planar and bounded-treewidth graphs. *Journal of Combinatorial Optimization*, 25, no. 1:19–46, 2013.
Also in: Proceedings of the *5th Workshop on Internet & Network Economics (WINE 2009)*.
48. J. Cardinal, S. Fiorini, G. Joret, R. M. Jungers, and J. I. Munro. Sorting under partial information (without the ellipsoid algorithm). *Combinatorica*, 33, no. 6:655–697, 2013.
Also in: Proceedings of the *42th ACM Symposium on Theory of Computing (STOC 2010)*.
49. S. Fiorini and G. Joret. Approximating the balanced minimum evolution problem. *Operations Research Letters*, 40, no. 1:31–35, 2012.
50. 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*, 26, no. 3:1068–1075, 2012.
51. G. Joret and D. R. Wood. Nordhaus-Gaddum for treewidth. *European Journal of Combinatorics*, 33, no. 4:488–490, 2012.
52. S. Fiorini, G. Joret, D. O. Theis, and D. R. Wood. Small minors in dense graphs. *European Journal of Combinatorics*, 33, no. 6:1226–1245, 2012.
53. V. Bruyère, G. Joret, and H. Mélot. Trees with given stability number and minimum number of stable sets. *Graphs and Combinatorics*, 28, no. 2:167–187, 2012.
54. J. Cardinal, S. Fiorini, and G. Joret. Minimum entropy combinatorial optimization problems. *Theory of Computing Systems*, 51, no. 1:4–21, 2012.
Also in: Proceedings of the *5th Conference on Mathematical Theory and Computational Practice: Computability in Europe (CiE 2009)*.
55. G. Joret and K. G. Milans. First-Fit is linear on posets excluding two long incomparable chains. *Order*, 28, no. 3:455–464, 2011.
56. J. Barát, G. Joret, and D. R. Wood. Disproof of the list Hadwiger conjecture. *Electronic Journal of Combinatorics*, 18, no. 1:R232, 2011.
57. V. Dujmović, G. Fijavž, 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*, 32, no. 8:1244–1252, 2011.
58. G. Joret. Stackelberg network pricing is hard to approximate. *Networks*, 57, no. 2:117–120, 2011.
59. J. Cardinal, E. D. Demaine, S. Fiorini, G. Joret, S. Langerman, I. Newman, and O. Weimann. The Stackelberg minimum spanning tree game. *Algorithmica*, 59, no. 2:129–144, 2011.
Also in: Proceedings of the *10th International Workshop on Algorithms and Data Structures (WADS 2007)*.
60. S. Fiorini, G. Joret, and U. Pietropaoli. Hitting diamonds and growing cacti. Proceedings of the *14th Conference on Integer Programming and Combinatorial Optimization (IPCO 2010)*.

61. G. Joret and D. R. Wood. Irreducible triangulations are small. *Journal of Combinatorial Theory, Series B*, 100, no. 5:446–455, 2010.
62. J. Cardinal, S. Fiorini, G. Joret, R. M. Jungers, and J. I. Munro. An efficient algorithm for partial order production. *SIAM Journal on Computing*, 39, no. 7:2927–2940, 2010.
Also in: Proceedings of the *41th ACM Symposium on Theory of Computing (STOC 2009)*.
63. G. Joret, M. Kamiński, and D. O. Theis. The Cops and Robber game on graphs with forbidden (induced) subgraphs. *Contributions to Discrete Mathematics*, 5, no. 2:40–51, 2010.
64. J.-P. Doignon, S. Fiorini, and G. Joret. Weighted graphs defining facets: a connection between stable set and linear ordering polytopes. *Discrete Optimization*, 6, no. 1:1–9, 2009.
65. S. Fiorini and G. Joret. On a theorem of Sewell and Trotter. *European Journal of Combinatorics*, 30, no. 2:425–428, 2009.
66. J. Cardinal, S. Fiorini, and G. Joret. Minimum entropy orientations. *Operations Research Letters*, 36, no. 6:680–683, 2008.
67. A. Bernáth and G. Joret. Well-balanced orientations of mixed graphs. *Information Processing Letters*, 106, no. 4:149–151, 2008.
68. N. Bougard and G. Joret. Turán’s theorem and k -connected graphs. *Journal of Graph Theory*, 58, no. 1:1–13, 2008.
69. J. Cardinal, S. Fiorini, and G. Joret. Tight results on minimum entropy set cover. *Algorithmica*, 51, no. 1:49–60, 2008.
Also in: Proceedings of the *9th International Workshop on Approximation Algorithms for Combinatorial Optimization Problems (APPROX 2006)*.
70. J. Cardinal, S. Fiorini, and G. Joret. Minimum entropy coloring. *Journal of Combinatorial Optimization*, 16, no. 4:361–377, 2008.
Also in: Proceedings of the *16th International Symposium on Algorithms and Computation (ISAAC 2005)*.
71. J.-P. Doignon, S. Fiorini, and G. Joret. Facets of the linear ordering polytope: a unification for the fence family through weighted graphs. *Journal of Mathematical Psychology*, 50, no. 3:251–262, 2006.

Talks in conferences and workshops

- Jan. 2022 “Further applications of the product structure theorem”, Banff Workshop on “Graph product structure theorems”, Oberwolfach graph theory meeting, Oberwolfach, Germany.
- Nov. 2021 “Sparse universal graphs for planarity”, Banff Workshop on “Graph product structure theorems”, Banff International Research Station, Banff, Canada.
- Sept. 2021 “Product structure of planar graphs”, Dagstuhl Seminar on “Sparsity in Algorithms, Combinatorics and Logic”, Dagstuhl, Germany.
- May 2021 “The extension dimension and the linear extension polytope of a poset”, CANADAM 2021, online.
- May 2021 “Sparse universal graphs for planarity”, CANADAM 2021, online.²
- Aug. 2020 “Packing and covering balls in graphs excluding a minor”, Virtual Discrete Math Colloquium organized by IBS Discrete Mathematics Group, Daejeon, South Korea (online talk).
- May 2020 “Product structure of planar graphs”, JCRAALMA Online Spring School on Product Structure Theorems (online lecture).³

²https://www.youtube.com/watch?v=8Sv_FaEN8zE&t=7129s

³<https://visio.u-bordeaux.fr/playback/presentation/2.0/playback.html?meetingId=2f0650b79e14fde9ea24e2530b31c59a0ced>

- Aug. 2019 “Large independent sets in triangle-free subcubic graphs”, Ghent graph theory workshop, Ghent, Belgium.
- June 2019 “Large independent sets in triangle-free subcubic graphs”, Structural graph theory workshop, Gułtowy, Poland.
- May 2019 “Layered partitions of planar graphs”, Graph theory and sparse structures workshop, Paris, France.
- Jan. 2019 “Large independent sets in triangle-free subcubic graphs”, Oberwolfach graph theory meeting, Oberwolfach, Germany.
- Dec. 2018 “Large independent sets in triangle-free subcubic graphs”, Conference in honor of Stéphan Thomassé, Lyon, France.
- Oct. 2018 “Erdős-Pósa property of planar minors”, Cargese workshop on combinatorial optimization, Cargese, Corsica, France.
- Sept. 2018 “Generalized coloring numbers”, Order & Geometry workshop, Ciazén, Poland.
- Jun. 2018 “Seymour’s conjecture on 2-connected graphs of large pathwidth”, Mini-Workshop on Graph Theory, Nijmegen, The Netherlands.
- Jan. 2018 “Graph entropy and sorting: From classical to quantum”, Aussois optimization workshop, Aussois, France.
- Nov. 2017 “Weak coloring numbers”, Journées Graphes et Algorithmes (JGA 2017), Bordeaux, France.
- Nov. 2017 “Graph entropy and sorting: From classical to quantum”, Workshop in honor of János Körner, Rome, Italy.
- June 2017 “Progress on the AVD edge coloring conjecture”, CANADAM 2017, Toronto, Canada.
- July 2016 “Sparsity and dimension”, 2016 Workshop on Structure in Graphs and Matroids, Eindhoven University of Technology, Eindhoven, The Netherlands.
- March 2016 “Sparsity and dimension”, Bellairs workshop on graph theory, Holetown, Barbados.
- Oct. 2015 “Sparsity and dimension”, 7th workshop on Graph Classes, Optimization, and Width Parameters (GROW 2015), Aussois, France.
- June 2015 “Sparsity and dimension”, Workshop on Structure in Combinatorics, Institut Henri Poincaré, Paris, France.
- June 2014 “On the dimension of posets with cover graphs of treewidth 2”, SIAM Conference on Discrete Mathematics, Minneapolis, United States.
- Apr. 2013 “Tree-width and dimension”, Conference honoring the 65th birthday of Jean-Paul Doignon, Université Libre de Bruxelles, Brussels, Belgium.
- Mar. 2013 “Tree-width and dimension”, Dagstuhl Seminar on Bidimensional Structures: Algorithms, Combinatorics and Logic. Dagstuhl, Germany.
- Aug. 2012 “Excluded forest minors and the Erdős-Pósa property”, 21st International Symposium on Mathematical Programming (ISMP 2012), Berlin, Germany.
- June 2012 “Nonrepetitive coloring via entropy compression”, Journées Combinatoires Rhone, Alpes, Provence. Lyon, France.
- June 2012 “An improved bound for First-Fit on posets without two long incomparable chains”, SIAM Conference on Discrete Mathematics, Halifax, Canada.
- May 2012 “Excluded forest minors and the Erdős-Pósa property”, Graph Theory @ Georgia Tech, Conference honoring the 50th birthday of Robin Thomas, Atlanta, United States.

- June 2011 “Hitting and harvesting pumpkins”, 7th Slovenian International Conference on Graph Theory, Bled, Slovenia.
- Sept. 2010 “Small minors in dense graphs”, Banff Workshop on New Trends in Structural Graph Theory, Banff, Canada.
- June 2010 “Sorting under partial information (without the ellipsoid algorithm)”, 42th ACM Symposium on Theory of Computing (STOC 2010), Cambridge, Massachusetts, USA.
- Jan. 2010 “Sorting under partial information (without the ellipsoid algorithm)”, 14th Combinatorial Optimization Workshop, Aussois, France.
- Dec. 2009 “The Stackelberg minimum spanning tree game on planar and bounded-treewidth graphs”, 5th Workshop on Internet & Network Economics, Rome, Italy.
- Nov. 2009 “Complete graph minors and the graph minor structure theorem”, 11èmes Journées Graphes et Algorithmes, Montpellier, France.
- May 2008 “Weighted graphs defining facets: a connection between stable set and linear ordering polytopes”, ROGICS 2008: International Conference on Relations, Orders and Graphs: Interaction with Computer Science, Mahdia, Tunisia.
- Nov. 2006 “Tight results on minimum entropy set cover”, DIAMANT/EIDMA Symposium 2006, Vught, The Netherlands.
- Aug. 2006 “Tight results on minimum entropy set cover”, 9th International Workshop on Approximation Algorithms for Combinatorial Optimization Problems, Barcelona, Spain.
- June 2006 “Graphes pondérés produisant des facettes du polytope des ordres totaux”, Troisièmes Journées Polyèdres et Optimisation Combinatoire, Avignon, France.
- May 2006 “On weighted graphs yielding facets of the linear ordering polytope”, DIMACS Workshop on Polyhedral Combinatorics of Random Utility, Rutgers University, New Jersey, USA.
- Dec. 2005 “Minimum entropy coloring”, 16th International Symposium on Algorithms and Computation, Sanya, China.
- Nov. 2005 “A weighted generalization of α -critical graphs in connection with linear ordering polytopes”, DIAMANT/EIDMA Symposium 2005, Mierlo, The Netherlands.
- Sept. 2005 “On a weighted generalization of α -critical graphs”, 7th International Colloquium on Graph Theory, Hyères, France.
- June 2005 “Une nouvelle famille de facettes du polytope des ordres totaux”, Deuxièmes Journées Polyèdres et Optimisation Combinatoire, 2005, Marseille, France.

Talks in seminars

- Mar. 2021 “Approximating pathwidth for graphs of small treewidth”, Bordeaux Graphs & Optimization seminar (online).
- Nov. 2020 “Sparse universal graphs for planarity”, Oxford discrete mathematics and probability seminar (online).⁴
- Oct. 2019 “A new proof of the Erdős-Pósa theorem”, Combinatorics Seminar, Department of Theoretical Computer Science, Jagiellonian University, Kraków, Poland.
- Mar. 2018 “Seymour’s conjecture on 2-connected graphs of large pathwidth”, INRIA Sophia-Antipolis, Sophia-Antipolis, France.

⁴<https://www.youtube.com/watch?v=6-vz5GmBrSA>

- Mar. 2018 “Seymour’s conjecture on 2-connected graphs of large pathwidth”, Ghent University, Ghent, Belgium.
- Feb. 2018 “Seymour’s conjecture on 2-connected graphs of large pathwidth”, Laboratoire d’Informatique Fondamentale, Marseille, France.
- Feb. 2017 “The forbidden minors for isometric realizability in the plane”, Probabilidade e Combinatória, Instituto Nacional de Matemática Pura e Aplicada, Rio de Janeiro, Brazil.
- Dec. 2016 “Orthogonal tree decompositions of graphs”, Combinatorics Seminar, Mathematics Department, FU Berlin, Berlin, Germany.
- Jun. 2016 “Improved approximation algorithms for hitting 3-vertex paths”, Combinatorics Seminar, Department of Theoretical Computer Science, Jagiellonian University, Kraków, Poland.
- Jan. 2016 “Dimension of planar posets”, Methods for Discrete Structures seminar, TU Berlin, Berlin, Germany.
- May 2014 “Probabilistic algorithms and the entropy compression method”, TRICS Seminar, Department of Computing and Information Systems, The University of Melbourne, Melbourne, Australia.
- Apr. 2014 “Tree-width and dimension”, Seminar on Discrete Structures and Algorithms, Department of Mathematics and Statistics, The University of Melbourne, Melbourne, Australia.
- Mar. 2014 “Tree-width and dimension”, Discrete mathematics seminar, Monash University, Melbourne, Australia.
- June 2013 “On Sheehan’s second hamiltonian cycle conjecture”, Algorithms, graphs, and combinatorics seminar, Université de Montpellier, Montpellier, France.
- May 2013 “On Sheehan’s second hamiltonian cycle conjecture”, Algebra & Combinatorics seminar, Université Libre de Bruxelles, Brussels, Belgium.
- Dec. 2012 “On Moser’s constructive proof of the local lemma”, Theoretical computer science seminar, Université de Montréal, Montreal, Canada
- Nov. 2012 “Nonrepetitive coloring via entropy compression”, Combinatorics and Optimization seminar, University of Ottawa, Ottawa, Canada
- Oct. 2012 “Nonrepetitive coloring via entropy compression”, Discrete Mathematics and Optimization seminar, McGill University, Montreal, Canada
- Apr. 2012 “Excluded forest minors and the Erdős-Pósa property”, Combinatorics Seminar, Department of Theoretical Computer Science, Jagiellonian University, Kraków, Poland.
- Apr. 2012 “Sorting under partial information (without the ellipsoid algorithm)”, Theoretical Computer Science Seminar, Department of Theoretical Computer Science, Jagiellonian University, Kraków, Poland.
- Oct. 2011 “First-Fit chain partitioning of partial orders”, Seminar on Discrete Structures and Algorithms, Department of Mathematics and Statistics, The University of Melbourne, Melbourne, Australia.
- Apr. 2011 “Sorting under partial information (without the ellipsoid algorithm)”, Combinatorial Optimization group of the G-SCOP Laboratory, Grenoble, France.
- Dec. 2010 “Small minors in dense graphs”, Department of Computer Sciences, Università degli studi di Roma “La Sapienza”, Rome, Italy.
- Oct. 2010 “Small minors in dense graphs”, Algorithms, graphs, and combinatorics seminar, Université de Montpellier, Montpellier, France.
- Oct. 2010 “Small minors in dense graphs”, Centrum for Wiskunde en Informatica (CWI), Amsterdam, Netherlands.
- May 2010 “Small minors in dense graphs”, Discrete Mathematics and Optimization seminar, McGill University, Montreal, Canada

- Mar. 2010 “Irreducible triangulations of surfaces”, Department of Applied Mathematics, Université Catholique de Louvain, Louvain-La-Neuve, Belgium.
- Dec. 2009 “Sorting under partial information (without the ellipsoid algorithm)”, Department of Computer Sciences, Università degli studi di Roma “La Sapienza”, Rome, Italy.
- Dec. 2009 “Sorting under partial information (without the ellipsoid algorithm)”, Operations Research Group, Università degli studi di Roma “Tor Vergata”, Rome, Italy.
- June 2009 “An efficient algorithm for partial order production”, Seminar on Discrete Structures and Algorithms, Department of Mathematics and Statistics, The University of Melbourne, Melbourne, Australia.
- Febr. 2009 “An efficient algorithm for partial order production”, Seminar of the research group on Large Graphs and Networks at Université Catholique de Louvain, Louvain-La-Neuve, Belgium.
- Apr. 2007 “Facets of the linear ordering polytope from a generalization of α -critical graphs”, Seminar of the Egerváry Research Group on Combinatorial Optimization (EGRES), Budapest, Hungary.
- Febr. 2005 “Graphs defining facets of the linear ordering polytope”, ULB-RUG Seminar on Buildings and Finite Geometry, Brussels, Belgium.

Other activities

- Member of the editorial board of the following journals:
 - *SIAM Journal on Discrete Mathematics* since 2021.
 - *Annals of Combinatorics* since 2019.
- Member of the program committee of the following conferences:
 - *24th International Conference on Approximation Algorithms for Combinatorial Optimization Problems (APPROX 2021)*
 - *47th International Workshop on Graph-Theoretic Concepts in Computer Science (WG 2021)*
 - *2nd Conference on Algorithms and Discrete Applied Mathematics (CALDAM 2016)*
 - *Journées Graphes et Algorithmes: Years 2019 & 2020*
- Organizer of the French graph theory conference *Journées Graphes et Algorithmes 2019* at ULB.
- Lecturer at the “Brussels Summer School in Mathematics”, August 03 - 07, 2015. Topic: The probabilistic method.
- Lecturer at the Summer School “Order and Geometry” held in Dölnnsee (Germany), August 07 - 10, 2013. Topic: Entropy of partial orders.

Teaching

I taught the following courses at ULB since starting my teaching position there.

- INFOF106 - Projet d’informatique: *2012–2013, 2014–2015, 2015–2016, 2016–2017, 2017–2018, 2018–2019, 2019–2020, 2020–2021*
- INFOF206 - Informatique: *Fall 2014, Fall 2015, Fall 2016, Fall 2017, Fall 2018, Fall 2019*
- INFOF521 - Graphs and networks: *Fall 2010, Spring 2012, Spring 2013, Fall 2015, Fall 2016, Fall 2017, Fall 2019, Fall 2020*
- Algorithmique (UMons, Charleroi campus): *Fall 2014, Spring 2016, Spring 2017, Spring 2018, Spring 2019, Spring 2020*

- MATHF306 - Optimisation: *Spring 2019*
- INFOF421 - Advanced complexity theory and approximation algorithms: *Fall 2014*

I also served as a TA for exercise sessions for various courses at ULB between 2004 and 2010.