Name and surname	Michał Pilipczuk
E-mail	michal.pilipczuk@mimuw.edu.pl
Website	http://www.mimuw.edu.pl/~mp248287
Research interests	graph algorithms, structural graph theory, logic in computer science

▶ Education and academic degrees

2021 Habilitation in computer science
Faculty of Mathematics, Informatics, and Mechanics, University of Warsaw, Poland
Thesis: *Tree-like graphs: algorithms, combinatorics, and logic*

2013 PhD in computer science — Advisor: Fedor V. Fomin
Institute of Informatics, University of Bergen, Norway
Thesis: *Tournaments and optimality: New results in parameterized complexity*

2013 Master degree in mathematics — Advisor: Łukasz Kowalik
Faculty of Mathematics, Informatics, and Mechanics, University of Warsaw, Poland
Thesis: *Comparing Randić index with other graph parameters*

2011 Master degree in computer science — Advisor: Mikołaj Bojańczyk
Faculty of Mathematics, Informatics, and Mechanics, University of Warsaw, Poland
Thesis: *Problems parameterized by treewidth tractable in single exponential time: a logical approach*

▶ Positions

since 2022 Associate professor (*pol.* profesor uczelni), Institute of Informatics of the University of Warsaw

2015 – 22 Assistant professor (*pol.* adiunkt), Institute of Informatics of the University of Warsaw

2014 – 15 Postdoc in Warsaw Centre of Mathematics and Computer Science, affiliated with the Institute of Informatics of the University of Warsaw

2011 – 14 PhD student at the Institute of Informatics of the University of Bergen, Norway

▶ Leadership in projects

since 2021 Principal investigator of ERC StG project *BOBR: Decomposition Methods for Discrete Problems*. Institute of Informatics, University of Warsaw, Poland. Project website

Summary: The project investigates applications of decomposition methods in algorithms, structural graph theory, and finite model theory, with particular focus on cross-area inspirations and transfer of techniques. The primary directions are: (i) creating foundations for logic-oriented theory of dense graphs, extending the field of Sparsity; (ii) dynamic data structures for parameterized problems; (iii) design of parameterized algorithms and approximation schemes for problems in topologically-constrained graphs, and (iv) algorithms for problems in hereditary graph classes.

Amount of funding: 1 355 688 EUR.

2014 – 17 Principal investigator of SONATA project *Optimality in Parameterized Complexity*, funded by the National Science Center of Poland. Institute of Informatics, University of Warsaw, Poland.

Summary: The topic of the project was the *optimality programme* in parameterized complexity: proving tight upper and lower bound on the complexity of parameterized problems.

Amount of funding: 386 320 PLN (∼ 90 000 EUR).

▶ Invited talks

Graph classes and logic	WG 2024. Gozd Martuljek, Slovenia.
Well-structured graphs through the lens of logic	SWAT 2024. Helsinki, Finland.
Structural graph theory through the lens of first-order logic	CSL 2023. Warsaw, Poland.
Old and new advances in model checking first-order logic (tutorial)	Highlights of Logic, Automata, and Games 2021. Online.
Structural graph theory through the lens of first-order logic	CSGT 2021. Rajecké Teplice, Slovakia.

Structural sparsity in graphs (tutorial) Polish Combinatorial Conference 2020. Online.

A structural theory for classes of sparse graphs DIMEA Days 2019. Brno, Czechia.

Parameterized algorithms for planar packing and covering problems using Voronoi diagrams
Satellite workshop of SoCG 2018. Budapest, Hungary.

On definable and recognizable properties of graphs of bounded treewidth MFCS 2016. Aalborg, Denmark.

On tree-like graphs FIT 2016. Warsaw, Poland.

Kernelization algorithms on sparse graph classes WorKer 2015. Nordfjordeid, Norway.

Graph Isomorphism is fpt parameterized by treewidth and *Algorithmic lower bounds based on ETH and SETH*
Satellite workshop of FSTTCS 2014. New Delhi, India.

Lower bounds for polynomial kernelization (tutorial) IPEC 2012. Ljubljana, Slovenia.

► Invited lecturing activities at research schools

2024 School EPIT 2024 – Graphs and Algorithms: Conjectures. Aussois, France.

2023 School EPIT 2023 – Le Kaléidoscope de la Complexité. Ile d'Oléron, France.

2021 Summer school on modern directions in discrete optimization, part of the trimester program "Discrete Optimization" at Hausdorff Research Institute for Mathematics. Bonn, Germany.

2020 Course *Combinatorics and algorithms for sparse graphs*, part of AlgoMaNet series. Warsaw, Poland.

2018 Lectures at DocCourse programme Sparsity. Charles University, Prague, Czechia.

2017 School on Recent Advances in Parameterized Complexity. Tel Aviv, Israel.

2017 Parameterized Complexity Summer School, a satellite event of ALGO 2017. Vienna, Austria.

2016 ELC School on Parameterized Algorithms. Osaka, Japan.

► Selected organization of scientific meetings

2023 Co-organizer of LoGAlg 2023, a workshop on logic, graphs, and algorithms. Warsaw, Poland.

2023 Co-organizer of Focused Workshop on Combinatorics of Integer Programming. Erdős Center, Budapest, Hungary.

2021 Co-organizer of Dagstuhl Seminar 21391: Sparsity in Algorithms, Combinatorics, and Logic. Schloss Dagstuhl, Germany.

2021 Co-organizer of the 47th International Workshop on Graph-Theoretic Concepts in Computer Science, WG 2021. Online (was planned to be held in Warsaw).

2017 Co-organizer of ALGSTRUCT, a satellite workshop of ICALP 2017. Warsaw, Poland.

2014 Co-organizer and lecturer at the International School on Parameterized Algorithms. Będlewo, Poland.

► Awards

2022 Prize of the Prime Minister of Poland for outstanding habilitations granted in 2021.

2016 ERCIM Cor Baayen Award.

2015, 16 START stipend granted by the Foundation for Polish Science (FNP), awarded twice, and twice with a distinction for the highest ranked applications.

2015 Witold Lipski Prize for the best young researchers working in computer science in Poland.

2015 Stipend of Ministry of Science and Higher Education of Poland for outstanding young researchers.

2014 Nomination to International Banach Prize.

2014 Meltzer Prize for Young Researchers (*nor.* Meltzerprisen for yngre forskere), awarded for the achievements in 2013.

► Paper awards

2023 EATCS-IPEC Nerode Prize for the paper *Solving connectivity problems parameterized by treewidth in single-exponential time*, with M. Cygan, J. Nederlof, Ma. Pilipczuk, J. M. M. van Rooij, and J. Wojtaszczyk (FOCS 2011, ACM TALG 2022).

2022 Distinguished Paper Award at LICS 2022 for the paper *Stable graphs of bounded twin-width*, with J. Gajarský and Szymon Toruńczyk.

2022 Best Paper Award at ICALP 2022, track B, for the paper *Twin-width and types*, with J. Gajarský, W. Przybyszewski, and Szymon Toruńczyk.

2020 Best Paper Award at WG 2020, for the paper *Hamiltonian Cycle parameterized by treedepth in single exponential time and polynomial space*, with J. Nederlof, C. Swennenhuis, and K. Węgrzycki.

2016 Excellent Paper Award at IPEC 2016 for the paper *Cutwidth: Obstructions and algorithmic aspects*, with A. Giannopoulou, J-F. Raymond, D. Thilikos, and M. Wrochna.

2012 Best Student Paper Award at WG 2016 for the paper *On Group Feedback Vertex Set parameterized by the size of the cutset*, with M. Cygan and Ma. Pilipczuk.

▶ Community service

Editor in: TheoretiCS, SIAM Journal on Discrete Mathematics

Program Committee co-chair of: STACS 2025, WG 2021, IPEC 2018

Program Committee member of: SODA 2025, ICALP 2024 (track B), ESA 2023 (track S), Eurocomb 2023, Highlights of Logic, Games and Automata 2023, WADS 2023, SODA 2023, STOC 2022, ESA 2021 (track A), ISAAC 2020, Highlights of Algorithms 2020, Highlights of Logic, Games and Automata 2020, ICALP 2020 (track A), SWAT 2020, MFCS 2019, IPEC 2018, STOC 2018, STACS 2018, IPEC 2017, ESA 2016 (track A), WG 2016, ICALP 2015 (track A), WALCOM 2015, FSTTCS 2014

▶ Advisor duties

Post-docs:	3 post-docs within the ERC project BOBR: T. Masařík, P. Ohlmann, G. Stamoulis
PhD students:	Marcin Wrochna (Nov 2018, co-supervised with Marcin Pilipczuk), Łukasz Bożyk (May 2024), Marek Sokołowski (expected Feb 2025)
Master students:	Grzegorz Fabiański (2018), Adam Paszke (2019), Adam Starak (2019), Marek Sokołowski (2020), Katarzyna Kowalska (2023), Monika Michaluk (ongoing)
Other:	Research partner of Sebastian Siebertz during his POLONEZ fellowship (a Polish clone of the Marie Skłodowska-Curie Individual Fellowship). 2016–18.

Publications

▶ Books

[1] Marek Cygan, Fedor V. Fomin, Łukasz Kowalik, Daniel Lokshtanov, Dániel Marx, Marcin Pilipczuk, Michał Pilipczuk, Saket Saurabh,
Parameterized Algorithms,
Springer, 2015.

▶ Chapters in books

[2] Michał Pilipczuk,
Computing tree decompositions,
Chapter in *Treewidth, Kernels, and Algorithms — Essays Dedicated to Hans L. Bodlaender on the Occasion of His 60th Birthday*, edited by Fedor V. Fomin, Stefan Kratsch, and Erik Jan van Leeuwen. Springer, 2020.

[3] Marcin Pilipczuk, Michał Pilipczuk,
Planar Digraphs,
Chapter in *Classes of Digraphs*, edited by Gregory Gutin and Jørgen Bang-Jensen. Springer, 2018.

▶ Articles in journals

For journal publications that had a preliminary conference version published earlier, the latter one is given under **C** and has the same authors and title, unless explicitly stated.

[4] Patrice Ossona de Mendez, Michał Pilipczuk, Sebastian Siebertz,
Transducing paths in graph classes with unbounded shrubdepth,
European Journal of Combinatorics 123, 103660, 2025

[5] Michaël Cadilhac, Filip Mazowiecki, Charles Paperman, Michał Pilipczuk, Géraud Sénizergues,
On polynomial recursive sequences,
Theory of Computing Systems 68(4), pp. 593–614, 2024

C: Proceedings of the 47$^{\text{th}}$ International Colloquium on Automata, Languages, and Programming, ICALP 2020 Volume 168 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2017

[6] Maria Chudnovsky, Marcin Pilipczuk, Michał Pilipczuk, Stéphan Thomassé,
Quasi-polynomial time approximation schemes for the Maximum Weight Independent Set Problem in H-free graphs,
SIAM Journal on Computing 53(1), pp. 47–86, 2024

C: Proceedings of the 31$^{\text{th}}$ Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2020

[7] Jesper Nederlof, Michał Pilipczuk, Karol Węgrzycki,
Bounding generalized coloring numbers of planar graphs using coin models,
Electronic Journal of Combinatorics 30(3), 2023

[8] Michał Pilipczuk, Marek Sokołowski,
Graphs of bounded twin-width are quasi-polynomially χ-bounded,
Journal of Combinatorial Theory, Series B 161, pp. 382–406, 2023

[9] Marthe Bonamy, Jadwiga Czyżewska, Łukasz Kowalik, Michał Pilipczuk,
Partitioning edges of a planar graph into linear forests and a matching,
Journal of Graph Theory 104(3), pp. 659–677, 2023

[10] Marco Caoduro, Jana Cslovjecsek, Michał Pilipczuk, Karol Węgrzycki,
On the independence number of intersection graphs of axis-parallel segments,
Journal of Computational Geometry 14(1), pp. 144–156, 2023

[11] Jesper Nederlof, Michał Pilipczuk, Céline M. F. Swennenhuis, Karol Węgrzycki,
Hamiltonian Cycle parameterized by treedepth in single exponential time and polynomial space,
SIAM Journal on Discrete Mathematics 37(3), pp. 1566–1586, 2023

C: Proceedings of the 46$^{\text{th}}$ International Workshop on Graph-Theoretic Concepts in Computer Science, WG 2020 Lecture Notes in Computer Science 12301, pp. 27–39, Springer, 2020

[12] Mikołaj Bojańczyk, Michał Pilipczuk,
Optimizing tree decompositions in MSO,
Logical Methods in Computer Science 18(1), 2022

C: Proceedings of the 34th International Symposium on Theoretical Aspects of Computer Science, STACS 2017
Volume 66 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2017

[13] Alejandro Grez, Filip Mazowiecki, Michał Pilipczuk, Gabriele Puppis, Cristian Riveros,
Dynamic data structures for timed automata acceptance,
Algorithmica 84(11), pp. 3223-3245, 2022

C: Proceedings of the 15th International Symposium on Parameterized and Exact Computation, IPEC 2021

[14] Łukasz Bożyk, Michał Pilipczuk,
On the Erdős-Pósa property for immersions and topological minors in tournaments,
Discrete Mathematics and Theoretical Computer Science 24(1), 2022

[15] Marthe Bonamy, Nicolas Bousquet, Michał Pilipczuk, Paweł Rzążewski, Stéphan Thomassé, Bartosz Walczak,
Degeneracy of P_t-free and $C_{\geqslant t}$-free graphs with no large complete bipartite subgraphs,
Journal of Combinatorial Theory, Series B 152, pp. 353–378, 2022

[16] Łukasz Bożyk, Oscar Defrain, Karolina Okrasa, Michał Pilipczuk,
On objects dual to tree-cut decompositions,
Journal of Combinatorial Theory, Series B 157, pp. 401-428, 2022

[17] Dániel Marx, Marcin Pilipczuk, Michał Pilipczuk,
A subexponential parameterized algorithm for Directed Subset Traveling Salesman problem on planar graphs,
SIAM Journal on Computing 51(2), pp. 254–289, 2022

Note: Journal version of half of the results of the conference article [143].

[18] Fedor V. Fomin, Daniel Lokshtanov, Dániel Marx, Marcin Pilipczuk, Michał Pilipczuk, Saket Saurabh,
Subexponential parameterized algorithms for planar and apex-minor-free graphs via low treewidth pattern covering,
SIAM Journal on Computing 51(6), pp. 1866–1930, 2022

C: Proceedings of the 57th Annual IEEE Symposium on Foundations of Computer Science, FOCS 2016

[19] Marthe Bonamy, Cyril Gavoille, Michał Pilipczuk,
Shorter labeling schemes for planar graphs,
SIAM Journal on Discrete Mathematics 36(3), pp. 2082–2099, 2022)

C: Proceedings of the 31th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2020

[20] Andrzej Grzesik, Tereza Klimošová, Marcin Pilipczuk, Michał Pilipczuk,
Polynomial-time algorithm for Maximum Weight Independent Set on P_6-free graphs,
ACM Transactions on Algorithms 18(1), pp. 4:1-4:57, 2022

C: Proceedings of the 30th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2019

[21] Dániel Marx, Michał Pilipczuk,
Optimal parameterized algorithms for planar facility location problems using Voronoi diagrams,
ACM Transactions on Algorithms 18(2), pp. 13:1–13:64, 2022

C: Proceedings of the 23rd Annual European Symposium on Algorithms, ESA 2015
Volume 9294 of Lecture Notes in Computer Science (LNCS), Springer, 2015

[22] Marek Cygan, Jesper Nederlof, Marcin Pilipczuk, Michał Pilipczuk, Johan M. M. van Rooij, Jakub Onufry Wojtaszczyk,
Solving connectivity problems parameterized by treewidth in single exponential time,
ACM Transactions on Algorithms 18(2), 17:1–17:31, 2022

C: Proceedings of the 52nd Annual IEEE Symposium on Foundations of Computer Science, FOCS 2011

[23] Mikołaj Bojańczyk, Martin Grohe, Michał Pilipczuk,
Definable decompositions for graphs of bounded linear cliquewidth,
Logical Methods in Computer Science 17(1), 2021

C: Proceedings of the 23rd Annual ACM/IEEE Symposium on Logic in Computer Science, LICS 2018

[24] Jana Novotná, Karolina Okrasa, Michał Pilipczuk, Paweł Rzążewski, Erik Jan van Leeuwen, Bartosz Walczak,
Subexponential-time algorithms for finding large induced sparse subgraphs,
Algorithmica 83(8), pp. 2634–2650, 2021

C: Proceedings of the 14th International Symposium on Parameterized and Exact Computation, IPEC 2019

[25] Andrzej Grzesik, Tereza Klimošová, Marcin Pilipczuk, Michał Pilipczuk,
Covering Minimal Separators and Potential Maximal Cliques in P_t-Free Graphs,
Electronic Journal on Combinatorics 28(1), 2021

[26] Marthe Bonamy, François Dross, Tomáš Masařík, Andrea Munaro, Wojciech Nadara, Marcin Pilipczuk, Michał Pilipczuk,
Jones' conjecture in subcubic graphs,
Electronic Journal on Combinatorics 28(4), 2021

[27] Michał Pilipczuk, Sebastian Siebertz,
Kernelization and approximation of distance-r independent sets on nowhere dense graphs,
European Journal on Combinatorics 94, 103309, 2021

[28] Michał Pilipczuk, Sebastian Siebertz,
Polynomial bounds for centered colorings in proper minor-closed graph classes,
Journal of Combinatorial Theory, Series B 151, pp. 111–147, 2021

C: Proceedings of the 30th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2019

[29] Archontia C. Giannopoulou, Michał Pilipczuk, Jean-Florent Raymond, Dimitrios M. Thilikos, Marcin Wrochna,
Linear kernels for edge deletion problems to immersion-closed graph classes,
SIAM Journal on Discrete Mathematics 35(1), pp. 105–151, 2021

C: Proceedings of the 44th International Colloquium on Automata, Languages, and Programming, ICALP 2017
Volume 80 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2017

[30] Marcin Briański, Piotr Micek, Michał Pilipczuk, Michał T. Seweryn,
Erdős-Hajnal properties for powers of sparse graphs,
SIAM Journal on Discrete Mathematics 35(1), pp. 447–464, 2021

[31] Maria Chudnovsky, Jason King, Michał Pilipczuk, Paweł Rzążewski, Sophie Spirkl,
Finding large H-colorable subgraphs in hereditary graph classes,
SIAM Journal on Discrete Mathematics 35(4), pp. 2357–2386, 2021

C: Proceedings of the 29th Annual European Symposium on Algorithms, ESA 2020
Volume 173 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2020

[32] Marek Cygan, Paweł Komosa, Daniel Lokshtanov, Marcin Pilipczuk, Michał Pilipczuk, Saket Saurabh, Magnus Wahlström,
Randomized contractions meet lean decompositions,
ACM Transactions on Algorithms 17(1), pp. 6:1-6:30, 2021

[33] Jaroslav Nešetřil, Patrice Ossona de Mendez, Michał Pilipczuk, Xuding Zhu,
Clustering powers of sparse craphs,
Electronic Journal of Combinatorics 27(4) P4.17, 2020

[34] Marthe Bonamy, Michał Pilipczuk,
Graphs of bounded cliquewidth are polynomially χ-bounded,
Advances in Combinatorics, 2020:8, 21pp., 2020

[35] Maria Chudnovsky, Marcin Pilipczuk, Michał Pilipczuk, Stéphan Thomassé,
On Maximum Weight Independent Set in graphs without induced cycles of length at least five,
SIAM Journal on Discrete Mathematics 34(2), pp. 1472–1483, SIAM, 2020

[36] Michał Pilipczuk, Erik Jan van Leeuwen, Andreas Wiese,
Quasi-polynomial time approximation schemes for packing and covering problems in planar graphs,
Algorithmica 82(6), pp. 1703–1739, Springer, 2020

C: Proceedings of the 26th Annual European Symposium on Algorithms, ESA 2018
Volume 112 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2018

[37] Marthe Bonamy, Oscar Defrain, Marc Heinrich, Michał Pilipczuk, Jean-Florent Raymond,
Enumerating Minimal Dominating Sets in K_t-free Graphs and Variants,
ACM Transactions on Algorithms 16(3):39, ACM, 2020

Note: This article had an earlier conference version published in the proceedings of the 36th International Symposium on Theoretical Aspects of Computer Science, STACS 2019. I was not a coauthor of this conference version and was included as a coauthor only of the journal version.

[38] Dušan Knop, Michał Pilipczuk, Marcin Wrochna,
Tight complexity lower bounds for integer linear programming with few constraints,
ACM Transactions on Computation Theory 12(3):19, ACM, 2020

C: Proceedings of the 36th International Symposium on Theoretical Aspects of Computer Science, STACS 2019
Volume 126 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2019

[39] Jakub Gajarský, Stephan Kreutzer, Jaroslav Nešetřil, Patrice Ossona de Mendez, Michał Pilipczuk, Sebastian Siebertz, Szymon Toruńczyk,
First-order interpretations of bounded expansion classes,
ACM Transactions on Computational Logic 21(4):29, ACM, 2020

C: Proceedings of the 45th International Colloquium on Automata, Languages, and Programming, ICALP 2018
Volume 107 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2018

[40] Kord Eickmeyer, Jan van den Heuvel, Ken-ichi Kawarabayashi, Stephan Kreutzer, Patrice Ossona de Mendez, Michał Pilipczuk, Daniel A. Quiroz, Roman Rabinovich, Sebastian Siebertz,
Model-checking on ordered structures,
ACM Transactions on Computational Logic 21(2):11, ACM, 2020

C: Joint article based on merging the results of the conference paper [149] with works of other authors.

[41] Ivan Bliznets, Marek Cygan, Paweł Komosa, Lukáš Mach, Michał Pilipczuk,
Lower bounds for the parameterized complexity of Minimum Fill-in and other completion problems,
ACM Transactions on Algorithms 16(2):25, ACM, 2020

C: Proceedings of the 27th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2016

[42] O-joung Kwon, Michał Pilipczuk, Sebastian Siebertz,
On low rank-width colourings,
European Journal of Combinatorics 83, Elsevier, 2020

C: Proceedings of the 43rd International Workshop on Graph-Theoretic Concepts in Computer Science, WG 2017
Volume 10520 of Lecture Notes in Computer Science (LNCS), Springer, 2017

[43] Dmitry Chistikov, Wojciech Czerwiński, Piotr Hofman, Michał Pilipczuk, Michael Wehar,
Shortest paths in one-counter systems,
Logical Methods in Computer Science 15(1), 2019

C: Proc. of the 19th Int. Conference on Foundations of Software Science and Computation Structures, FoSSaCS 2016
Volume 9634 of Lecture Notes in Computer Science (LNCS), Springer, 2016

[44] Marthe Bonamy, Łukasz Kowalik, Michał Pilipczuk, Arkadiusz Socała, Marcin Wrochna,
Tight lower bounds for the complexity of Multicoloring,
ACM Transactions on Computation Theory 11(3):13, ACM, 2019

C: Proceedings of the 25th Annual European Symposium on Algorithms, ESA 2017
Volume 87 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2017

[45] Florian Barbero, Christophe Paul, Michał Pilipczuk,
Strong immersion is a well-quasi-ordering for semi-complete digraphs,
Journal of Graph Theory 90(4), pp. 484–496, Wiley, 2019

[46] Marcin Pilipczuk, Michał Pilipczuk, Marcin Wrochna,
Edge Bipartization faster than 2^k,
Algorithmica 81(2), pp. 917–966, Springer, 2019

C: Proceedings of the 11th International Symposium on Parameterized and Exact Computation, IPEC 2016
Volume 63 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2016

[47] Archontia C. Giannopoulou, Michał Pilipczuk, Jean-Florent Raymond, Dimitrios M. Thilikos, Marcin Wrochna,
Cutwidth: obstructions and algorithmic aspects,
Algorithmica 81(2), pp. 557–588, Springer, 2019

C: Proceedings of the 11th International Symposium on Parameterized and Exact Computation, IPEC 2016
Volume 63 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2016

[48] Pål Grønås Drange, Michał Pilipczuk,
A polynomial kernel for Trivially Perfect Editing,
Algorithmica 80(12), pp. 3481–3524, Springer, 2018

C: Proceedings of the 23rd Annual European Symposium on Algorithms, ESA 2015
Volume 9294 of Lecture Notes in Computer Science (LNCS), Springer, 2015

[49] Daniel Lokshtanov, Michał Pilipczuk, Saket Saurabh,
Below all subsets for Minimal Connected Dominating Set,
SIAM Journal on Discrete Mathematics 32(3), pp. 2332–2345, SIAM, 2018

[50] Florian Barbero, Chrstophe Paul, Michał Pilipczuk,
Exploring the complexity of layout parameters in tournaments and semi-complete digraphs,
ACM Transactions on Algorithms 14(3):38, ACM, 2018

C: Proceedings of the 44th International Colloquium on Automata, Languages, and Programming, ICALP 2017
Volume 80 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2017

[51] Fedor V. Fomin, Daniel Lokshtanov, Michał Pilipczuk, Saket Saurabh, Marcin Wrochna,
Fully polynomial-time parameterized computations for graphs and matrices of low treewidth,
ACM Transactions on Algorithms 14(3):34, ACM, 2018

C: Proceedings of the 28th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2017

[52] Ivan Bliznets, Fedor V. Fomin, Marcin Pilipczuk, Michał Pilipczuk,
A subexponential parameterized algorithm for Interval Completion,
ACM Transactions on Algorithms 14(3):35, ACM, 2018

C: Proceedings of the 27th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2016

[53] Ivan Bliznets, Marek Cygan, Paweł Komosa, Michał Pilipczuk,
Hardness of approximation for H-free edge modification problems,
ACM Transactions on Computation Theory 10(2):9, ACM, 2018

C: Proc. of the 19th Int. Workshop on Approximation Algorithms for Comb. Optimization Problems, APPROX 2016
Volume 60 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2016

[54] Michał Pilipczuk, Marcin Wrochna,
On space efficiency of algorithms working on structural decompositions of graphs,
ACM Transactions on Computation Theory 9(4):18, ACM, 2018

C: Proceedings of the 33rd International Symposium on Theoretical Aspects of Computer Science, STACS 2016
Volume 47 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2016

[55] Marek Cygan, Dániel Marx, Marcin Pilipczuk, Michał Pilipczuk,
Hitting forbidden subgraphs in graphs of bounded treewidth,
Information and Computation 256 (Supplement C), pp. 62–82, Elsevier, 2017

C: Proceedings of the 39th International Symposium on Mathematical Foundations of Computer Science, MFCS 2014
Volume 8635 of Lecture Notes in Computer Science (LNCS), Springer, 2014

[56] Anna Adamaszek, Tomasz Kociumaka, Marcin Pilipczuk, Michał Pilipczuk,
Hardness of approximation for strip packing,
ACM Transactions on Computation Theory 9(3):14, ACM, 2017

[57] Marthe Bonamy, Łukasz Kowalik, Michał Pilipczuk, Arkadiusz Socała,
Linear kernels for outbranching problems in sparse digraphs,
Algorithmica 79(1), pp. 159–188, Springer, 2017

C: Proceedings of the 10th International Symposium on Parameterized and Exact Computation, IPEC 2015
Volume 43 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2016

[58] Daniel Lokshtanov, Marcin Pilipczuk, Michał Pilipczuk, Saket Saurabh,
Fixed-parameter tractable canonization and isomorphism test for graphs of bounded treewidth,
SIAM Journal on Computing 46(1), pp. 161–189, SIAM, 2017

C: Proceedings of the 55th Annual IEEE Symposium on Foundations of Computer Science, FOCS 2014

[59] Marek Cygan, Marcin Pilipczuk, Michał Pilipczuk, Erik Jan van Leeuwen, Marcin Wrochna,
Polynomial kernelization for removing induced claws and diamonds,
Theory of Computing Systems 60(4), pp. 615–636, Springer, 2017

C: Proceedings of the 41st International Workshop on Graph-Theoretic Concepts in Computer Science, WG 2015
Volume 9224 of Lecture Notes in Computer Science (LNCS), Springer, 2016

[60] Michał Pilipczuk, Szymon Toruńczyk,
On ultralimits of sparse graph classes,
Electronic Journal of Combinatorics 23(2), P2.32, 2016

[61] Tatjana V. Abramovskaya, Fedor V. Fomin, Petr A. Golovach, Michał Pilipczuk,
How to hunt an invisible rabbit on a graph,
European Journal of Combinatorics 52, pp. 12–26, Elsevier, 2016

[62] Marek Cygan, Daniel Lokshtanov, Marcin Pilipczuk, Michał Pilipczuk, Saket Saurabh,
Minimum Bisection is fixed parameter tractable,
SIAM Journal on Computing 48(2), pp. 417–450, SIAM, 2019

C: Proceedings of the 46th ACM Symposium on Theory of Computing, STOC 2014

[63] Fedor V. Fomin, Michał Pilipczuk,
On width measures and topological problems on semi-complete digraphs,
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Designing FPT algorithms for cut problems using randomized contractions,
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[66] Hans L. Bodlaender, Pål Grønås Drange, Markus Sortland Dregi, Fedor V. Fomin, Daniel Lokshtanov, Michał Pilipczuk,
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[68] Marek Cygan, Marcin Pilipczuk, Michał Pilipczuk,
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Algorithmica 74(2), pp. 630–642, Springer, 2016

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[71] Ivan Bliznets, Fedor V. Fomin, Michał Pilipczuk, Yngve Villanger,
Largest chordal and interval subgraphs faster than 2^n,
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[81] Marek Cygan, Daniel Lokshtanov, Marcin Pilipczuk, Michał Pilipczuk, Saket Saurabh,
On cutwidth parameterized by vertex cover,
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[82] Marek Cygan, Marcin Pilipczuk, Michał Pilipczuk, Jakub Onufry Wojtaszczyk,
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Volume 7112 of Lecture Notes in Computer Science (LNCS), Springer, 2011

[85] Marek Cygan, Marcin Pilipczuk, Michał Pilipczuk, Jakub Onufry Wojtaszczyk,
Subset Feedback Vertex Set is fixed-parameter tractable,
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Volume 6755 of Lecture Notes in Computer Science (LNCS), Springer, 2011

[86] Marek Cygan, Marcin Pilipczuk, Michał Pilipczuk, Jakub Onufry Wojtaszczyk,
On Multiway Cut parameterized above lower bounds,
ACM Transactions on Computation Theory 5(1):3, ACM, 2013

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Volume 7112 of Lecture Notes in Computer Science (LNCS), Springer, 2011

[87] Marek Cygan, Marcin Pilipczuk, Michał Pilipczuk, Jakub Onufry Wojtaszczyk,
A polynomial algorithm for 3*-Compatible Coloring and the stubborn list partition problem (the stubborn problem is stubborn no more)*,
SIAM Journal on Computing 41(4), pp. 815–828, SIAM, 2012

C: Proceedings of the 22nd Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2011

[88] Marek Cygan, Marcin Pilipczuk, Michał Pilipczuk, Jakub Onufry Wojtaszczyk,
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[90] Marek Cygan, Marcin Pilipczuk, Michał Pilipczuk, Jakub Onufry Wojtaszczyk,
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[91] Marek Cygan, Michał Pilipczuk, Riste Škrekovski,
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[92] Marek Cygan, Geevarghese Philip, Marcin Pilipczuk, Michał Pilipczuk, Jakub Onufry Wojtaszczyk,
Dominating Set is fixed parameter tractable in claw-free graphs,
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[93] Marek Cygan, Michał Pilipczuk, Riste Škrekovski,
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▶ Articles at conferences

We list only articles whose journal versions are not published in journals, whereas the articles with published journal versions are listed in the previous section. The only exception are articles [159,161,162], which have one joint journal version [63], article [149], whose results are included in the wider journal article [40], and article [143], whose half of the results were published in [17]. We list them here for completeness.

[94] Jana Cslovjecsek, Michał Pilipczuk, Karol Węgrzycki,
Parameterized approximation for Maximum Weight Independent Set of rectangles and segments,
Proceedings of the 32nd Annual European Symposium on Algorithms, ESA 2024
Volume 308 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2024

[95] Konrad Majewski, Michał Pilipczuk, Anna Zych-Pawlewicz,
Parameterized dynamic data structure for Split Completion,
Proceedings of the 32nd Annual European Symposium on Algorithms, ESA 2024
Volume 308 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2024

[96] Jan Dreier, Ioannis Eleftheriadis, Nikolas Mählmann, Rose McCarty, Michał Pilipczuk, Szymon Toruńczyk,
First-Order model checking on monadically stable graph classes,
Proceedings of the 65th Annual IEEE Symposium on Foundations of Computer Science, FOCS 2024

[97] Tuukka Korhonen, Michal Pilipczuk, Giannos Stamoulis,
Minor Containment and Disjoint Paths in almost-linear time,
Proceedings of the 65th Annual IEEE Symposium on Foundations of Computer Science, FOCS 2024

[98] Jakub Gajarský, Michał Pilipczuk, Marek Sokołowski, Giannos Stamoulis, Szymon Toruńczyk,
Elementary first-order model checking for sparse graphs,
Proceedings of the 39th Annual ACM/IEEE Symposium on Logic in Computer Science, LICS 2024

[99] Peter Gartland, Daniel Lokshtanov, Tomáš Masařík, Marcin Pilipczuk, Michał Pilipczuk, Paweł Rzążewski,
Maximum Weight Independent Set in graphs with no long claws in quasi-polynomial time,
Proceedings of the 56th ACM Symposium on Theory of Computing, STOC 2024

[100] Katarzyna Anna Kowalska, Michał Pilipczuk,
Parameterized and approximation algorithms for coverings points with segments in the plane,
Proceedings of the 41st International Symposium on Theoretical Aspects of Computer Science, STACS 2024
Volume 289 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2024

[101] Tuukka Korhonen, Wojciech Nadara, Michał Pilipczuk, Marek Sokołowski,
Fully dynamic approximation schemes on planar and apex-minor-free graphs,
Proceedings of the 35th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2024

[102] Mathieu Mari, Anish Mukherjee, Michał Pilipczuk, Piotr Sankowski,
Shortest Disjoint Paths on a grid,
Proceedings of the 35th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2024

[103] Jana Cslovjecsek, Michał Pilipczuk, Karol Węgrzycki,
A polynomial-time $\mathsf{OPT}^{\varepsilon}$*-approximation algorithm for Maximum Independent Set of connected subgraphs in a planar graph*,
Proceedings of the 35th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2024

[104] Jana Cslovjecsek, Martin Koutecký, Alexandra Lassota, Michał Pilipczuk, Adam Polak,
Parameterized algorithms for block-structured integer programs with large entries,
Proceedings of the 35th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2024

[105] Gwenaël Joret, Piotr Micek, Michał Pilipczuk, Bartosz Walczak,
Cliquewidth and dimension,
Proceedings of the 35th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2024

[106] Maria Chudnovsky, Rose McCarty, Marcin Pilipczuk, Michał Pilipczuk, Paweł Rzążewski,
Sparse induced subgraphs in P_6*-free graphs*,
Proceedings of the 35th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2024

[107] Antonio Casares, Marcin Pilipczuk, Michał Pilipczuk, Uéverton S. Souza, K. S. Thejaswini,
Simple and tight complexity lower bounds for solving Rabin games,
Proceedings of the 7th SIAM Symposium on Simplicity in Algorithms, SOSA 2024

[108] Łukasz Kowalik, Alexandra Lassota, Konrad Majewski, Michał Pilipczuk, Marek Sokołowski,
Detecting points in integer cones of polytopes is double-exponentially hard,
Proceedings of the 7th SIAM Symposium on Simplicity in Algorithms, SOSA 2024

[109] Benjamin Bergougnoux, Vera Chekan, Robert Ganian, Mamadou Moustapha Kanté, Matthias Mnich, Sang-il Oum, Michał Pilipczuk, Erik Jan van Leeuwen,
Space-efficient parameterized algorithms on graphs of low shrubdepth,
Proceedings of the 31st Annual European Symposium on Algorithms, ESA 2023
Volume 274 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2023

[110] Tuukka Korhonen, Konrad Majewski, Wojciech Nadara, Michał Pilipczuk, Marek Sokołowski,
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Proceedings of the 64th Annual IEEE Symposium on Foundations of Computer Science, FOCS 2023

[111] Vincent Cohen-Addad, Hung Le, Marcin Pilipczuk, Michał Pilipczuk,
Planar and minor-free metrics embed into metrics of polylogarithmic treewidth with expected multiplicative distortion arbitrarily close to 1,
Proceedings of the 64th Annual IEEE Symposium on Foundations of Computer Science, FOCS 2023

[112] Mathieu Mari, Timothé Picavet, Michał Pilipczuk,
A parameterized approximation scheme for the Geometric Knapsack problem with wide items,
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[113] Hans L. Bodlaender, Carla Groenland, Michał Pilipczuk,
Parameterized complexity of binary CSP: vertex cover, treedepth, and related parameters,
Proceedings of the 50th International Colloquium on Automata, Languages, and Programming, ICALP 2023
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[114] Jakub Gajarský, Nikolas Mählmann, Rose McCarty, Pierre Ohlmann, Michał Pilipczuk, Wojciech Przybyszewski, Sebastian Siebertz, Marek Sokołowski, Szymon Toruńczyk,
Flipper Games for monadically stable graph classes,
Proceedings of the 50th International Colloquium on Automata, Languages, and Programming, ICALP 2023
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[115] Pierre Ohlmann, Michał Pilipczuk, Wojciech Przybyszewski, Szymon Toruńczyk,
Canonical decompositions in monadically stable and bounded shrubdepth graph classes,
Proceedings of the 50th International Colloquium on Automata, Languages, and Programming, ICALP 2023
Volume 261 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2023

[116] Lorenzo Clemente, Maria Donten-Bury, Filip Mazowiecki, Michał Pilipczuk,
On rational recursive sequences,
Proceedings of the 40th International Symposium on Theoretical Aspects of Computer Science, STACS 2023
Volume 254 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2023

[117] Konrad Majewski, Michał Pilipczuk, Marek Sokołowski,
Maintaining CMSO_2 *properties on dynamic structures with bounded feedback vertex number*,
Proceedings of the 40th International Symposium on Theoretical Aspects of Computer Science, STACS 2023
Volume 254 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2023

[118] Jędrzej Olkowski, Michał Pilipczuk, Mateusz Rychlicki, Karol Węgrzycki, Anna Zych-Pawlewicz,
Dynamic data structures for parameterized string problems,
Proceedings of the 40th International Symposium on Theoretical Aspects of Computer Science, STACS 2023
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[119] Meike Hatzel, Konrad Majewski, Michał Pilipczuk, Marek Sokolowski,
Simpler and faster algorithms for detours in planar digraphs,
Proceedings of the 6th SIAM Symposium on Simplicity in Algorithms, SOSA 2023

[120] Hans L. Bodlaender, Carla Groenland, Hugo Jacob, Marcin Pilipczuk, Michal Pilipczuk,
On the complexity of problems on tree-structured graphs,
Proceedings of the 17th International Symposium on Parameterized and Exact Computation, IPEC 2022
Volume 249 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2023

[121] Łukasz Bożyk, Michał Pilipczuk,
Polynomial kernel for immersion hitting in tournaments,
Proceedings of the 30th Annual European Symposium on Algorithms, ESA 2022
Volume 244 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2022

[122] Wojciech Nadara, Michał Pilipczuk, Marcin Smulewicz,
Computing treedepth in polynomial space and linear FPT time,
Proceedings of the 30th Annual European Symposium on Algorithms, ESA 2022
Volume 244 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2022

[123] Michał Pilipczuk, Nicole Schirrmacher, Sebastian Siebertz, Szymon Toruńczyk, Alexandre Vigny,
Algorithms and data structures for First-Order logic with connectivity under vertex failures,
Proceedings of the 49th International Colloquium on Automata, Languages, and Programming, ICALP 2022
Volume 229 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2022

[124] Jakub Gajarský, Michał Pilipczuk, Wojciech Przybyszewski, Szymon Toruńczyk,
Twin-width and types,
Proceedings of the 49th International Colloquium on Automata, Languages, and Programming, ICALP 2022
Volume 229 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2022

[125] Jan Dreier, Jakub Gajarsý, Sandra Kiefer, Michał Pilipczuk, Szymon Toruńczyk,
Treelike decompositions for transductions of sparse graphs,
Proceedings of the 37th Annual ACM/IEEE Symposium on Logic in Computer Science, LICS 2022

[126] Jakub Gajarský, Michał Pilipczuk, Szymon Toruńczyk,
Stable graphs of bounded twin-width,
Proceedings of the 37th Annual ACM/IEEE Symposium on Logic in Computer Science, LICS 2022

[127] Jesper Nederlof, Michał Pilipczuk, Céline M. F. Swennenhuis, Karol Węgrzycki,
Isolation schemes for problems on decomposable graphs,
Proceedings of the 39th International Symposium on Theoretical Aspects of Computer Science, STACS 2022
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[128] Michał Pilipczuk, Marek Sokołowski, Anna Zych-Pawlewicz,
Compact representation for matrices of bounded twin-width,
Proceedings of the 39th International Symposium on Theoretical Aspects of Computer Science, STACS 2022
Volume 219 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2022

[129] Daniel Lokshtanov, Marcin Pilipczuk, Michał Pilipczuk, Saket Saurabh,
Fixed-parameter tractability of graph isomorphism in graphs with an excluded minor,
Proceedings of the 54th ACM Symposium on Theory of Computing, STOC 2022

[130] Jana Cslovjecsek, Friedrich Eisenbrand, Michał Pilipczuk, Moritz Venzin, Robert Weismantel,
Efficient sequential and parallel algorithms for multistage stochastic integer programming using proximity,
Proceedings of the 29th Annual European Symposium on Algorithms, ESA 2021
Volume 204 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2021

[131] Peter Gartland, Daniel Lokshtanov, Marcin Pilipczuk, Michał Pilipczuk, Pawel Rzążewski,
Finding large induced sparse subgraphs in $C_{>t}$-free graphs in quasipolynomial time,
Proceedings of the 53rd ACM Symposium on Theory of Computing, STOC 2021

[132] Marcin Pilipczuk, Michał Pilipczuk, Paweł Rzążewski,
Quasi-polynomial-time algorithm for Independent Set in P_t-free graphs via shrinking the space of induced paths,
Proceedings of the 4th SIAM Symposium on Simplicity in Algorithms, SOSA 2021

[133] Jaroslav Nešetřil, Patrice Ossona de Mendez, Michał Pilipczuk, Roman Rabinovich, Sebastian Siebertz,
Rankwidth meets stability,
Proceedings of the 32nd Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2021

[134] Jiehua Chen, Wojciech Czerwiński, Yann Disser, Andreas Emil Feldmann, Danny Hermelin, Wojciech Nadara, Michał Pilipczuk, Marcin Pilipczuk, Manuel Sorge, Bartłomiej Wróblewski, Anna Zych-Pawlewicz,
Efficient fully dynamic elimination forests with applications to detecting long paths and cycles,
Proceedings of the 32nd Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2021

[135] Adam Paszke, Michał Pilipczuk,
VC density of set systems definable in tree-like graphs,
Proceedings of the 45th International Symposium on Mathematical Foundations of Computer Science, MFCS 2020
Volume 170 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2020

[136] Daniel Lokshtanov, Pranabendu Misra, Michał Pilipczuk, Saket Saurabh, Meirav Zehavi,
An exponential time parameterized algorithm for planar disjoint paths,
Proceedings of the 52nd ACM Symposium on Theory of Computing, STOC 2020

[137] Vincent Cohen-Addad, Marcin Pilipczuk, Michał Pilipczuk,
A polynomial-time approximation scheme for Facility Location on planar graphs,
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[138] Vincent Cohen-Addad, Marcin Pilipczuk, Michał Pilipczuk,
Efficient approximation schemes for uniform-cost clustering problems in planar graphs,
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Volume 144 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2019

[139] Karl Bringmann, Sándor Kisfaludi-Bak, Michał Pilipczuk, Erik Jan van Leeuwen,
On Geometric Set Cover for orthants,
Proceedings of the 27th Annual European Symposium on Algorithms, ESA 2019
Volume 144 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2019

[140] Filip Mazowiecki, Michał Pilipczuk,
Reachability for Bounded Branching VASS,
Proceedings of the 30th International Conference on Concurrency Theory, CONCUR 2019
Volume 140 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2019

[141] Eduard Eiben, Robert Ganian, Dušan Knop, Michał Pilipczuk, Sebastian Ordyniak, Marcin Wrochna,
Tight complexity lower bounds for integer linear programming with few constraints,
Proceedings of the 20th International Conference on Integer Programming and Combinatorial Optimization, IPCO 2019
Volume 11480 of Lecture Notes in Computer Science (LNCS), Springer, 2019

[142] Grzegorz Fabiański, Michał Pilipczuk, Sebastian Siebertz, Szymon Toruńczyk,
Progressive algorithms for domination and independence,
Proceedings of the 36th International Symposium on Theoretical Aspects of Computer Science, STACS 2019
Volume 126 of LIPIcs, Schloß Dagstuhl — Leibniz-Zentrum für Informatik, 2019

[143] Dániel Marx, Marcin Pilipczuk, Michał Pilipczuk,
On subexponential parameterized algorithms for Steiner Tree and Directed Subset TSP on planar graphs,
Proceedings of the 59th Annual IEEE Symposium on Foundations of Computer Science, FOCS 2018

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[144] Michał Pilipczuk, Sebastian Siebertz, Szymon Toruńczyk,
On the number of types in sparse graphs,
Proceedings of the 23rd Annual ACM/IEEE Symposium on Logic in Computer Science, LICS 2018

[145] Michał Pilipczuk, Sebastian Siebertz, Szymon Toruńczyk,
Parameterized circuit complexity of model checking first order logic on sparse structures,
Proceedings of the 23rd Annual ACM/IEEE Symposium on Logic in Computer Science, LICS 2018

[146] Marthe Bonamy, Łukasz Kowalik, Jesper Nederlof, Michał Pilipczuk, Arkadiusz Socała, Marcin Wrochna,
On Directed Feedback Vertex Set parameterized by treewidth,
Proceedings of the 44th International Workshop on Graph-Theoretic Concepts in Computer Science, WG 2018
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[147] Michał Pilipczuk, Erik Jan van Leeuwen, Andreas Wiese,
Approximation and parameterized algorithms for geometric independent set with shrinking,
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