Curriculum Vitae

Peter Jonsson

Born in Linköping, Sweden on Feb. 26, 1969. Swedish citizen.

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Academic Degrees

- PhD in Computer Science, Linköping University, 1996. Dissertation title: *Studies in Action Planning: Algorithms and Complexity.* Advisor: Christer Bäckström.
- MSc in Computer Science, Linköpings University, 1993. Thesis title: *Alternative Constructions of Reflexive Scott Domains.* Advisor: Karl-Johan Bäckström.

Employment

- Professor in Computer Science, Linköping University, 2004.
- Associate professor (Docent) in Computer Science, Linköping University, 1998.
- Assistant professor (Lektor) in Computer Science, Linköping University, 1997.

PhD Advising

Main advisor for the following completed PhDs:

1. George Osipov, *On Infinite-Domain CSPs Parameterized by Solution Cost* (Jun, 2024)
2. Biman Roy, *Applications of Partial Polymorphisms in (Fine-Grained) Complexity of Constraint Satisfaction Problems* (Apr, 2020)
3. Simon Ståhlberg, *Methods for Detecting Unsolvable Planning Instances Using Variable Projection* (Oct, 2017)
4. Meysam Aghighi, *Computational Complexity of Some Optimization Problems in Planning* (Jun, 2017)
5. Victor Lagerkvist, *Strong Partial Clones and the Complexity of Constraint Satisfaction Problems: Limitations and Applications* (Feb, 2016)
6. Hannes Uppman, *On Some Combinatorial Optimization Problems: Algorithms and Complexity* (May, 2015)
7. Tommy Färnqvist, *Exploiting Structure in CSP-related Problems* (Feb, 2013)
8. Johan Thapper, *Aspects of a Constraint Optimisation Problem* (Feb, 2010)
9. Fredrik Kuivinen, *Algorithms and Hardness Results for Some Valued CSPs* (Dec, 2009)
10. Gustav Nordh, *Complexity Dichotomies for CSP-related Problems* (Jun, 2007)
11. Magnus Wahlström, *Algorithms, Measures, and Upper Bounds for Satisfiability and Related Problems* (Apr, 2007)
12. Vilhelm Dahllöf, *Exact Algorithms for Exact Satisfiability Problems* (Jun, 2006)
13. Ola Angelsmark, *Constructing Algorithms for Constraint Satisfaction and Related Problems: Methods and Applications* (Jun, 2005)
14. Mathias Broxvall, *A Study in the Computational Complexity of Temporal Reasoning* (Dec, 2002)

Co-advisor for the following completed PhDs:

1. Leif Eriksson, *Infinite-Domain CSPs and QBF: Fine-Grained and Parameterized Complexity* (Oct, 2025, Dept. of CS, Linköping University)
2. Christoffer Hindlycke, *Understanding the Speedup of Quantum Computation* (Dec, 2024, Dept. of EE, Linköping University)

3. Niklas Johansson, *A Resource for Quantum Computation* (Jan, 2022, Dept. of EE, Linköping University)

Currently main advisor for Jorke de Vlas. Co-advisor for Johanna Groven.

Postdocs

Supervised postdocs:

- George Osipov (2024)
- Victor Lagerkvist (2018 – 2020)
- Michał Wrona (2012 – 2014)
- Johannes Schmidt (2012–2013)
- Stefanie Kosuch (2010–2012)
- Rustem Takhanov (2009–2011)

Editorial Boards/Program Committees

Member of the editorial board of the *Journal of Artificial Intelligence Research* 2000-2002 and the following program committees:

- AAAI 2010, 2015–2021 (AAAI Conference on Artificial Intelligence)
- AI&MATH 2000, 2002, 2004, 2006 (International Symposium on AI and Mathematics)
- AIPS 1998, 2000 (International Conference on AI Planning and Scheduling)
- CP 2001, 2005, 2006, 2014 (International Conference on Principles and Practice of Constraint Programming)
- CiE 2019 (Computability in Europe)
- ECAI 2006 (European Conference on AI)
- ECP 1999, 2001 (European Conference on Planning).
- ICAPS 2015–2018 (International Conference on Automated Planning and Scheduling)
- IJCAI 1999, 2013, 2015–2018, 2020–2022 (International Joint Conference on AI)
- IWPEC 2008 (International Workshop on Exact and Parameterized Computation)

- JELIA 2006, 2008 (European Conference on Logics in AI)
- QUAC 2015 (Workshop on Qualitative Spatial and Temporal Reasoning: Computational Complexity and Algorithms), co-organiser
- TIME 2004, 2005, 2019, 2024 (International Symposium on Temporal Representation and Reasoning)

Publications

Book Chapters

[BC2] Peter Jonsson and Gustav Nordh. Introduction to the Maximum Solution problem. In Nadia Creignou, Phokion Kolaitis, and Heribert Vollmer (eds.), *Complexity of Constraints*, LNCS 5250, Springer-Verlag, pp. 255–282, 2008.

[BC1] Thomas Drakengren and Peter Jonsson. Computational complexity of temporal constraint problems. In Michael Fisher, Dov Gabbay, and Lluís Vila (eds.), *Handbook of Temporal Reasoning in Artificial Intelligence*, Elsevier, pp. 197–218, 2005.

Journal Articles

[J71] Konrad K. Dabrowski, Peter Jonsson, Sebastian Ordyniak, George Osipov, and Magnus Wahlström. Almost consistent systems of linear equations. *ACM Transactions on Algorithms* 21(4): 44:1-44:55, 2025.

[J70] Manuel Bodirsky, Peter Jonsson, Barnaby Martin, Antoine Mottet, and Žaneta Semanišinová. Complexity classification transfer for CSPs via algebraic products. *SIAM Journal on Computing*, 53(5): 1293-1353, 2024.

[J69] Konrad K. Dabrowski, Peter Jonsson, Sebastian Ordyniak, and George Osipov. Solving infinite-domain CSPs using the patchwork property. *Artificial Intelligence*, 317:103880, 2023.

[J68] Peter Jonsson and Victor Lagerkvist. General lower bounds and improved algorithms for infinite-domain CSPs. *Algorithmica*, 85(1):188-215, 2023.

[J67] Christer Bäckström and Peter Jonsson. A framework for analysing state-abstraction methods. *Artificial Intelligence*, 302:103608, 2022.

[J66] Peter Jonsson, Victor Lagerkvist, and Sebastian Ordyniak. Computational short cuts in infinite domain constraint satisfaction. *Journal of Artificial Intelligence Research* 75:793-831, 2022.

[J65] Christer Bäckström and Peter Jonsson. A framework for analysing state-abstraction methods. *Artificial Intelligence* 302:103608, 2022.

[J64] Peter Jonsson, Victor Lagerkvist, Johannes Schmidt, and Hannes Uppman. The exponential-time hypothesis and the relative complexity of optimization and logical reasoning problems. *Theoretical Computer Science* 892:1–24, 2021.

[J63] Peter Jonsson, Victor Lagerkvist, and George Osipov. Acyclic orders, partition schemes and CSPs: unified hardness proofs and improved algorithms. *Artificial Intelligence* 296:103505, 2021.

[J62] Alexander Shleyfman and Peter Jonsson. Computational complexity of computing symmetries in finite-domain planning. *Journal of Artificial Intelligence Research* 70:1183–1221, 2021.

[J61] Peter Jonsson, Victor Lagerkvist, and Biman Roy. Fine-grained time complexity of constraint satisfaction problems. *ACM Transaction on Computation Theory* 13(1) 2:1–2:32, 2021.

[J60] Christer Bäckström, Peter Jonsson, and Sebastian Ordyniak. Cost-optimal planning, delete relaxation, approximability and heuristics. *Journal of Artificial Intelligence Research* 70:169–204, 2021.

[J59] Marco Kuhlmann, Giorgio Satta, and Peter Jonsson. On the complexity of CCG parsing. *Computational Linguistics* 44(3), 2018.

[J58] Peter Jonsson and Johan Thapper. Tractability conditions for numeric CSPs. *Theoretical Computer Science* 715:21–34, 2018.

[J57] Peter Jonsson. Constants and finite unary relations in qualitative constraint reasoning. *Artificial Intelligence* 257:1–23, 2018.

[J56] Christian Glaßer, Peter Jonsson, and Barnaby Martin. Circuit satisfiability and constraint satisfaction around Skolem arithmetic. *Theoretical Computer Science* 703:18–36, 2017.

[J55] Christer Bäckström and Peter Jonsson. Time and space bounds for planning. *Journal of Artificial Intelligence Research* 60:595–638, 2017.

[J54] Manuel Bodirsky, Peter Jonsson, and Trung Van Pham. Complexity of phylogeny constraint satisfaction problems. *ACM Transactions on Computational Logic* 18(3) 23:1–23:42, 2017.

[J53] Manuel Bodirsky and Peter Jonsson. A model-theoretical view on qualitative constraint reasoning. *Journal of Artificial Intelligence Research* 58:339–385, 2017.

[J52] Peter Jonsson and Victor Lagerkvist. An initial study of time complexity in infinite-domain constraint satisfaction. *Artificial Intelligence* 245:115–133, 2017.

[J51] Peter Jonsson, Victor Lagerkvist, Gustav Nordh, and Bruno Zanuttini. Strong partial clones and the time complexity of SAT problems. *Journal of Computer and System Sciences* 84:52–78, 2017.

[J50] Manuel Bodirsky, Peter Jonsson, and Trung Van Pham. The reducts of the homogeneous binary branching C-relation. *Journal of Symbolic Logic* 81(4):1255–1297, 2016.

[J49] Meysam Aghighi, Christer Bäckström, Peter Jonsson, and Simon Ståhlberg. Refining complexity analyses in planning by exploiting the exponential time hypothesis. *Annals of Mathematics and Artificial Intelligence* 78(2):157–175, 2016.

[J48] Peter Jonsson and Johan Thapper. Constraint satisfaction and semilinear expansions of addition over the rationals and the reals. *Journal of Computer and System Sciences* 82(5):912–928, 2016.

[J47] Marco Kuhlmann and Peter Jonsson. Parsing to noncrossing dependency graphs. *Transactions of the Association for Computational Linguistics* 3:559–570, 2015.

[J46] Christer Bäckström, Peter Jonsson, Sebastian Ordyniak, and Stefan Szeider. A complete parameterized complexity analysis of bounded planning. *Journal of Computer and System Sciences* 81(7):1311–1332, 2015.

[J45] Peter Jonsson, Victor Lagerkvist, and Gustav Nordh. Constructing NP-intermediate problems by blowing holes with parameters of various properties. *Theoretical Computer Science* 581:67–82, 2015.

[J44] Robert Engström, Tommy Färnqvist, Peter Jonsson, and Johan Thapper. An approximability-related parameter on graphs—properties and applications. *Discrete Mathematics and Theoretical Computer Science* 17(1):33–66, 2015.

[J43] Christer Bäckström, Anders Jonsson, and Peter Jonsson. Automaton plans. *Journal of Artificial Intelligence Research* 51:255–291, 2014.

[J42] Anders Jonsson, Peter Jonsson, and Tomas Lööw. Limitations of acyclic causal graphs for planning. *Artificial Intelligence* 210:36–55, 2014.

[J41] Christer Bäckström and Peter Jonsson. A refined view of causal graphs and component sizes: SP-closed graph classes and beyond. *Journal of Artificial Intelligence Research* 47:575–611, 2013.

[J40] Peter Jonsson and Tomas Lööw. Computational complexity of linear constraints over the integers. *Artificial Intelligence* 195:44–62, 2013.

[J39] Manuel Bodirsky, Peter Jonsson, and Timo von Oertzen. Essential convexity and complexity of semi-algebraic constraints. *Logical Methods in Computer Science* 8(4):article 5, 2012.

[J38] Manuel Bodirsky, Peter Jonsson, and Timo von Oertzen. Horn versus full first-order: complexity dichotomies in algebraic constraint satisfaction. *Journal of Logic and Computation* 22:643–660, 2012.

[J37] Christer Bäckström and Peter Jonsson. Algorithms and limits for compact plan representation. *Journal of Artificial Intelligence Research* 44:141–177, 2012.

[J36] Peter Jonsson and Johan Thapper. Approximating integer programs with positive right-hand sides. *Information Processing Letters* 110(10):351–355, 2010.

[J35] Tomás Feder, Pavol Hell, Peter Jonsson, Andrei Krokhin, and Gustav Nordh. Retractions to pseudoforests. *SIAM Journal on Discrete Mathematics* 24(1):101–112, 2010.

[J34] Peter Jonsson and Gustav Nordh. Approximability of clausal constraints. *Theory of Computing Systems* 46(2):370–395, 2010.

[J33] Robert Engström, Tommy Färnqvist, Peter Jonsson, and Johan Thapper. Properties of an approximability-related parameter on circular complete graphs. *Electronic Notes in Discrete Mathematics* 35:115–120, 2009.

[J32] Peter Jonsson, Andrei Krokhin, and Fredrik Kuivinen. Hard constraint satisfaction problems have hard gaps at location 1. *Theoretical Computer Science* 410(38–40):3856–3874, 2009.

[J31] Vladimir Deineko, Peter Jonsson, Mikael Klasson, and Andrei Krokhin. The approximability of Max CSP with fixed-value constraints. *Journal of the ACM* 55:article 4, 2008.

[J30] Peter Jonsson and Andrei Krokhin. Computational complexity of auditing finite attributes in statistical databases. *Journal of Computer and System Sciences* 74:898-909, 2008.

[J29] Peter Jonsson, Fredrik Kuivinen, and Gustav Nordh. Max Ones generalised to larger domains. *SIAM Journal on Computing* 38(1):329-365, 2008.

[J28] Peter Jonsson and Andrei Krokhin. Maximum H-colourable subdigraphs and constraint optimization with arbitrary weights. *Journal of Computer and System Sciences* 73(5):691-702, 2007.

[J27] Peter Jonsson, Mikael Klasson, and Andrei Krokhin. The approximability of three-valued Max CSP. *SIAM Journal on Computing* 35(6):1329-1349, 2006.

[J26] Peter Jonsson. Adding clauses to poor man's logic (without increasing the complexity). *Journal of Applied Non-classical Logics* 15(3):341-357, 2005.

[J25] Vilhelm Dahllöf, Peter Jonsson, and Magnus Wahlström. Counting models in 2Sat and 3Sat formulae. *Theoretical Computer Science* 332(1–3):265-291, 2005.

[J24] Peter Jonsson and Andrei Krokhin. Recognizing frozen variables in constraint satisfaction problems. *Theoretical Computer Science* 329(1–3):93-113, 2004.

[J23] Víctor Dalmau and Peter Jonsson. The complexity of counting homomorphisms seen from the other side. *Theoretical Computer Science* 329(1–3):315-323, 2004.

[J22] Peter Jonsson and Andrei Krokhin. Complexity classification in qualitative temporal constraint reasoning. *Artificial Intelligence* 160(1–2):35-51, 2004.

[J21] Vilhelm Dahllöf, Peter Jonsson, and Richard Beigel. Algorithms for four variants of the exact satisfiability problem. *Theoretical Computer Science* 320(2–3):373–394, 2004.

[J20] Andrei Krokhin, Peter Jeavons, and Peter Jonsson. Constraint satisfaction problems on intervals and lengths. *SIAM Journal on Discrete Mathematics* 17(3):453–477, 2004.

[J19] Mathias Broxvall and Peter Jonsson. Point algebras for temporal reasoning: algorithms and complexity. *Artificial Intelligence* 149(2):179–220, 2003.

[J18] Andrei Krokhin, Peter Jeavons, and Peter Jonsson. Reasoning about temporal relations: the tractable subalgebras of Allen's interval algebra. *Journal of the ACM* 50(5):591–640, 2003.

[J17] Mathias Broxvall, Peter Jonsson, and Jochen Renz. Disjunctions, independence, refinements. *Artificial Intelligence* 140(1–2):153–173, 2002.

[J16] David Cohen, Peter Jeavons, Peter Jonsson, and Manolis Koubarakis. Building tractable disjunctive constraints. *Journal of the ACM* 47(5):826–853, 2000.

[J15] Peter Jonsson. Boolean constraint satisfaction: complexity results for optimization problems with arbitrary weights. *Theoretical Computer Science* 244(1–2):189–203, 2000.

[J14] Peter Jonsson, Patrik Haslum, and Christer Bäckström. Towards efficient universal planning—a randomized approach. *Artificial Intelligence* 117(1):1-29, 2000.

[J13] Peter Jonsson. Strong bounds on the approximability of two PSPACE-hard problems in propositional planning. *Annals of Mathematics and Artificial Intelligence* 26:133-147, 1999.

[J12] Peter Jonsson, Thomas Drakengren, and Christer Bäckström. Computational complexity of relating time points with intervals. *Artificial Intelligence* 109(1–2):273–295, 1999.

[J11] Inger Klein, Peter Jonsson, and Christer Bäckström. Efficient planning for a miniature assembly line. *Artificial Intelligence in Engineering* 13(1):69–81, 1999.

[J10] Thomas Drakengren and Peter Jonsson. Reasoning about set constraints applied to tractable inference in intuitionistic logic. *Journal of Logic and Computation* 8(6):855–875, 1998.

[J9] Thomas Drakengren and Peter Jonsson. A complete classification of tractability in Allen's algebra relative to subsets of basic relations. *Artificial Intelligence* 106(2):205–219, 1998.

[J8] Peter Jonsson. Near-optimal nonapproximability results for some NPO PB-complete problems. *Information Processing Letters* 68(5):249–253, 1998.

[J7] Peter Jonsson and Christer Bäckström. Tractable plan existence does not imply tractable plan generation. *Annals of Mathematics and Artificial Intelligence* 22(3–4):281–296, 1998.

[J6] Peter Jonsson and Christer Bäckström. A unifying approach to temporal constraint reasoning. *Artificial Intelligence* 102(1):143–155, 1998.

[J5] Peter Jonsson and Christer Bäckström. State-variable planning under structural restrictions: Algorithms and complexity. *Artificial Intelligence* 100(1–2):125–176, 1998.

[J4] Peter Jonsson. A nonapproximability result for finite function generation. *Information Processing Letters* 63:143-145, 1997.

[J3] Thomas Drakengren and Peter Jonsson. Twenty-one large tractable subclasses of Allen's algebra. *Artificial Intelligence* 93:297-319, 1997.

[J2] Thomas Drakengren and Peter Jonsson. Eight maximal tractable subclasses of Allen's algebra with metric time. *Journal of Artificial Intelligence Research* 7:25-45, 1997.

[J1] Peter Jonsson and Thomas Drakengren. A complete classification of tractability in RCC-5. *Journal of Artificial Intelligence Research* 6:211-221, 1997.

Refereed Conference and Workshop Papers

[C82] Konrad K. Dabrowski, Peter Jonsson, Sebastian Ordyniak, George Osipov, and Magnus Wahlström. Parameterized approximability for modular linear equations. *Proceedings of the 33rd Annual European Symposium on Algorithms (ESA-2025)*, pp. 88:1-88:15, 2025.

[C81] Peter Jonsson, Victor Lagerkvist, and George Osipov. CSPs with few alien constraints. *Proceedings of the 30th International Conference on Principles and Practice of Constraint Programming (CP-2024)*, pp. 15:1-15:17, 2024.

[C80] Konrad K. Dabrowski, Peter Jonsson, Sebastian Ordyniak, George Osipov, Marcin Pilipczuk, and Roohani Sharma. Parameterized complexity classification for interval constraints. *Proceedings of the 18th International Symposium on Parameterized and Exact Computation (IPEC-2023)*, pp. 11:1-11:19, 2023.

[C79] Daniel Gnad, Malte Helmert, Peter Jonsson, and Alexander Shleyfman. Planning over integers: compilations and undecidability. In *Proceedings of the 33rd International Conference on Automated Planning and Scheduling (ICAPS-2023)*, pp. 148-152, 2023.

[C78] Alexander Shleyfman, Daniel Gnad, and Peter Jonsson. Structurally restricted fragments of numeric planning - a complexity analysis. In *Proceedings of the 37th AAAI Conference on Artificial Intelligence (AAAI-2023)*, pp. 12112-12119, 2023.

[C77] Konrad Dabrowski, Peter Jonsson, Sebastian Ordyniak, George Osipov, and Magnus Wahlström. Almost consistent systems of linear equations. In *Proceedings of the 34th ACM-SIAM Symposium on Discrete Algorithms (SODA-2023)*, pp. 3179-3217, 2023.

[C76] Alexander Shleyfman, Daniel Gnad, and Peter Jonsson. New complexity results for structurally restricted numeric planning. In *Proceedings of the 2022 Workshop on Heuristics and Search for Domain-independent Planning (HSDIP-2022)*, 2022.

[C75] Konrad Dabrowski, Peter Jonsson, Sebastian Ordyniak, and George Osipov. Resolving inconsistencies in simple temporal problems: a parameterized approach. In *Proceedings of the 36th AAAI Conference on Artificial Intelligence (AAAI-2022)*, pp. 3724-3732, 2022.

[C74] Peter Jonsson, Victor Lagerkvist, and Sebastian Ordyniak. Reasoning short cuts in infinite domain constraint satisfaction: algorithms and lower bounds for backdoors. In *Proceedings of the 27th International Conference on Principles and Practice of Constraint Programming (CP-2021)*, pp. 32:1-32:20, 2021.

[C73] Konrad Dabrowski, Peter Jonsson, Sebastian Ordyniak, and George Osipov. Disjunctive temporal problems under structural restrictions. In *Proceedings of the 35th AAAI Conference on Artificial Intelligence (AAAI-2021)*, pp. 3724-3732, 2021.

[C72] Konrad Dabrowski, Peter Jonsson, Sebastian Ordyniak, and George Osipov. Solving infinite-domain CSPs using the patchwork property. In *Proceedings of the 35th AAAI Conference on Artificial Intelligence (AAAI-2021)*, pp. 3715-3723, 2021.

[C71] Konrad Dabrowski, Peter Jonsson, Sebastian Ordyniak, and George Osipov. Fine-grained complexity of temporal problems. In *Proceedings of the 17th International Conference on Principles of Knowledge Representation and Reasoning (KR-2020)*, pp. 284-293, 2020.

[C70] Peter Jonsson and Victor Lagerkvist. Lower bounds and faster algorithms for equality constraints. In *Proceedings of the 29th International Joint Conference on Artificial Intelligence (IJCAI-2020)*, pp. 1784-1790, 2020.

[C69] Christer Bäckström, Peter Jonsson, and Sebastian Ordyniak. A refined understanding of cost-optimal planning with polytree causal graphs. In *Proceedings of the 28th International Joint Conference on Artificial Intelligence (IJCAI-2019)*, pp. 6126-6130, 2019.

[C68] Peter Jonsson and Victor Lagerkvist. Why are CSPs based on partition schemes computationally hard? In *Proceedings of the 43rd International Symposium on Mathematical Foundations of Computer Science (MFCS-2018)*, pp. 43:1-43:15, 2018.

[C67] Christer Bäckström, Peter Jonsson, and Sebastian Ordyniak. A refined understanding of cost-optimal planning with polytree causal graphs. In *Proceedings of the 11th Annual Symposium on Combinatorial Search (SoCS-2018)*, pp. 19-27, 2018.

[C66] Christer Bäckström, Peter Jonsson, and Sebastian Ordyniak. Novel structural parameters for acyclic planning using tree embeddings. In *Proceedings of the 27th International Joint Conference on Artificial Intelligence (IJCAI-2018)*, pp. 4653-4659, 2018.

[C65] Manuel Bodirsky, Peter Jonsson, Barnaby Martin, and Antoine Mottet. Classification transfer for qualitative reasoning problems. In *Proceedings of the 27th International Joint Conference on Artificial Intelligence (IJCAI-2018)*, pp. 1256-1262, 2018.

[C64] Peter Jonsson, Victor Lagerkvist, and Biman Roy. Time complexity of constraint satisfaction via universal algebra. In *Proceedings of the 42nd International Symposium on Mathematical Foundations of Computer Science (MFCS-2017)*, pp. 17:1-17:15, 2017.

[C63] Peter Jonsson. Finite unary relations and qualitative constraint satisfaction. In *Proceedings of the 22nd European Conference on Artificial Intelligence (ECAI-2016)*, pp. 37-45, 2016.

[C62] Meysam Aghighi, Christer Bäckström, Peter Jonsson, and Simon Ståhlberg. Analysing approximability and heuristics in planning using the exponential-time hypothesis. In *Proceedings of the 22nd European Conference on Artificial Intelligence (ECAI-2016)*, pp. 184-192. 2016.

[C61] Christer Bäckström and Peter Jonsson. Upper and lower time and space bounds for planning. In *Proceedings of the 22nd European Conference on Artificial Intelligence (ECAI-2016)*, pp. 716-724, 2016.

[C60] Christian Glaßer, Peter Jonsson, and Barnaby Martin. Circuit satisfiability and constraint satisfaction problems around Skolem arithmetic. In *Proceedings of the 12th Conference on Computability in Europe (CiE-2016)*, pp. 323–332, 2016.

[C59] Manuel Bodirsky, Peter Jonsson, and Trung Van Pham. The complexity of phylogeny constraint satisfaction. In *Proceedings of the 33rd International Symposium on Theoretical Aspects of Computer Science (STACS-2016)*, pp. 20:1–20:13, 2016.

[C58] Peter Jonsson and Victor Lagerkvist. Upper and lower bounds on the time complexity of infinite-domain CSPs. In *Proceedings of the 21st International Conference on Principles and Practice of Constraint Programming (CP-2015)*, pp. 183–199, 2015.

[C57] Meysam Aghighi, Peter Jonsson, and Simon Ståhlberg. Tractable cost-optimal planning over restricted polytree causal graphs. In *Proceedings of the 29th AAAI Conference on Artificial Intelligence (AAAI-2015)*, pp. 3225–3231, 2015.

[C56] Peter Jonsson, Victor Lagerkvist, Johannes Schmidt, and Hannes Uppman. Relating the time complexity of optimization problems in light of the exponential-time hypothesis. In *Proceedings of the 39th International Symposium on Mathematical Foundations of Computer Science (MFCS-2014)*, pp. 408–419, 2014.

[C55] Peter Jonsson and Johan Thapper. Affine consistency and the complexity of semilinear constraints. In *Proceedings of the 39th International Symposium on Mathematical Foundations of Computer Science (MFCS-2014)*, pp. 420–431, 2014.

[C54] Meysam Aghighi and Peter Jonsson. Oversubscription planning: complexity and compilability. In *Proceedings of the 28th AAAI Conference on Artificial Intelligence (AAAI-2014)*, pp. 2221–2227, 2014.

[C53] Peter Jonsson, Victor Lagerkvist, and Gustav Nordh. Blowing holes in various aspects of computational problems, with applications to constraint satisfaction. In *Proceedings of the 19th International Conference on Principles and Practice of Constraint Programming (CP-2013)*, pp. 398–414, 2013.

[C52] Christer Bäckström and Peter Jonsson. Bridging the gap between refinement and heuristics in abstraction. In *Proceedings of the 23rd International Joint Conference on Artificial Intelligence (IJCAI-2013)*, pp. 2261–2267, 2013.

[C51] Christer Bäckström, Peter Jonsson, and Simon Ståhlberg. Fast detection of unsolvable planning instances using local consistency. In *Proceedings of the 6th Annual Symposium on Combinatorial Search (SoCS-2013)*, pp. 29–37, 2013.

[C50] Anders Jonsson, Peter Jonsson, and Tomas Lööw. When acyclicity is not enough: limitations of the causal graph. In *Proceedings of the 23rd International Conference on Automated Planning and Scheduling (ICAPS-2013)*, 2013.

[C49] Christer Bäckström, Peter Jonsson, Sebastian Ordyniak, and Stefan Szeider. Parameterized complexity and kernel bounds for hard planning problems. In *Proceedings of the 8th International Conference on Algorithms and Complexity (CIAC-2013)*, pp. 13–24, 2013.

[C48] Peter Jonsson, Victor Lagerkvist, Gustav Nordh, and Bruno Zanuttini. Complexity of SAT problems, clone theory and the exponential time hypothesis. In *Proceedings of the 24th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA-2013)*, pp. 1264–1277, 2013.

[C47] Christer Bäckström, Anders Jonsson, and Peter Jonsson. From macro plans to automata plans. In *Proceedings of the 20th European Conference on Artificial Intelligence (ECAI-2012)*, pp. 91–96, 2012.

[C46] Christer Bäckström, Anders Jonsson, and Peter Jonsson. Macros, reactive plans and compact representations. In *Proceedings of the 20th European Conference on Artificial Intelligence (ECAI-2012)*, pp. 85–90, 2012.

[C45] Christer Bäckström and Peter Jonsson. Abstracting abstraction in search II: complexity analysis. In *Proceedings of the 5th Annual Symposium on Combinatorial Search (SoCS-2012)*, pp. 10–17, 2012.

[C44] Christer Bäckström, Yue Chen, Peter Jonsson, Sebastian Ordyniak, and Stefan Szeider. The complexity of planning revisited — a parameterized analysis. In *Proceedings of the 26th (US) National Conference on Artificial Intelligence (AAAI-2012)*, pp. 1735–1741, 2012.

[C43] Christer Bäckström and Peter Jonsson. Abstracting abstraction in search with applications to planning. In *Proceedings of the 13th International Conference on Principles of Knowledge Representation and Reasoning (KR-2012)*, pp. 446–456, 2012.

[C42] Peter Jonsson, Fredrik Kuivinen, and Johan Thapper. Min CSP on four elements: moving beyond submodularity. In *Proceedings of the 17th International Conference on Principles and Practice of Constraint Programming (CP-2011)*, pp. 438–453, 2011.

[C41] Christer Bäckström and Peter Jonsson. All Pspace-complete planning problems are equal but some are more equal than others. In *Proceedings of the 4th Annual Symposium on Combinatorial Search (SoCS-2011)*, pp. 10–17, 2011.

[C40] Peter Jonsson and Tomas Lööw. Discrete-time temporal reasoning with Horn DLRs. In *Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI-2011)*, pp. 931–936, 2011.

[C39] Christer Bäckström and Peter Jonsson. Limits for compact representations of plans. In *Proceedings of the 21st International Conference on Automated Planning and Scheduling (ICAPS-2011)*, pp. 18–25, 2011.

[C38] Peter Jonsson and Johan Thapper. Approximability of the maximum solution problem for certain families of algebras. In *Proceedings of the 4th International Computer Science Symposium in Russia (CSR-2009)*, pp. 215–226, 2009.

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