

Florian Geißer

Dr. rer. nat. in Computer Science

Ph.D. Thesis

- [1] Florian Geißer. **On Planning with State-dependent Action Costs**. PhD thesis. University of Freiburg, 2019.

Publications in Conference Proceedings

- [2] Patrick Ferber, Florian Geißer, Felipe Trevizan, Malte Helmert, and Jörg Hoffmann. **Neural Network Heuristic Functions for Classical Planning: Bootstrapping and Comparison to Other Methods**. In: *Proceedings of the 32nd International Conference on Automated Planning and Scheduling, Virtual [Singapore Management University, Singapore], June 19-24, 2022*. To appear. 2022.
- [3] Florian Geißer, Patrik Haslum, Sylvie Thiébaux, and Felipe Trevizan. **Admissible Heuristics for Multi-Objective Planning**. In: *Proceedings of the 32nd International Conference on Automated Planning and Scheduling, Virtual [Singapore Management University, Singapore], June 19-24, 2022*. To appear. 2022.
- [4] Florian Geißer, Guillaume Pováda, Felipe Trevizan, Manon Bondouy, Florent Teichteil-Königsbuch, and Sylvie Thiébaux. **Optimal and Heuristic Approaches for Constrained Flight Planning under Weather Uncertainty**. In: *Proceedings of the Thirtieth International Conference on Automated Planning and Scheduling, Nancy, France, October 26-30, 2020*. 2020, pp. 384–393.
- [5] Florian Geißer, David Speck, and Thomas Keller. **Trial-Based Heuristic Tree Search for MDPs with Factored Action Spaces**. In: *Proceedings of the Thirteenth International Symposium on Combinatorial Search, SOCS 2020, Online Conference [Vienna, Austria], 26-28 May 2020*. 2020, pp. 38–47.
- [6] David Speck, Florian Geißer, and Robert Mattmüller. **When Perfect is not Good Enough: On the Search Behaviour of Symbolic Heuristic Search**. In: *Proceedings of the Thirtieth International Conference on Automated Planning and Scheduling, Nancy, France, October 26-30, 2020*. 2020, pp. 263–271.
- [7] Sumitra Corraya, Florian Geißer, David Speck, and Robert Mattmüller. **An Empirical Study of the Usefulness of State-Dependent Action Costs in Planning**. In: *KI 2019: Advances in Artificial Intelligence - 42nd German Conference on AI, Kassel, Germany, September 23-26, 2019, Proceedings*. Vol. 11793. Lecture Notes in Computer Science. 2019, pp. 123–130.
- [8] David Speck, Florian Geißer, Robert Mattmüller, and Álvaro Torralba. **Symbolic Planning with Axioms**. In: *Proceedings of the Twenty-Ninth International Conference on Automated Planning and Scheduling, ICAPS 2019, Berkeley, CA, USA, July 11-15, 2019*. 2019, pp. 464–472.

- [9] Robert Mattmüller, Florian Geißer, Benedict Wright, and Bernhard Nebel. **On the Relationship Between State-Dependent Action Costs and Conditional Effects in Planning.** In: *Proceedings of the Thirty-Second AAAI Conference on Artificial Intelligence, (AAAI-18), New Orleans, Louisiana, USA, February 2-7, 2018.* 2018, pp. 6237–6245.
- [10] David Speck, Florian Geißer, and Robert Mattmüller. **Symbolic Planning with Edge-Valued Multi-Valued Decision Diagrams.** In: *Proceedings of the Twenty-Eighth International Conference on Automated Planning and Scheduling, ICAPS 2018, Delft, The Netherlands, June 24-29, 2018.* 2018, pp. 250–258.
- [11] Florian Geißer, Thomas Keller, and Robert Mattmüller. **Abstractions for Planning with State-Dependent Action Costs.** In: *Proceedings of the Twenty-Sixth International Conference on Automated Planning and Scheduling, ICAPS 2016, London, UK, June 12-17, 2016.* 2016, pp. 140–148.
- [12] Thomas Keller, Florian Pommerening, Jendrik Seipp, Florian Geißer, and Robert Mattmüller. **State-dependent Cost Partitionings for Cartesian Abstractions in Classical Planning.** In: *Proceedings of the Twenty-Fifth International Joint Conference on Artificial Intelligence, IJCAI 2016, New York, NY, USA, 9-15 July 2016.* 2016, pp. 3161–3169.
- [13] Dali Sun, Florian Geißer, and Bernhard Nebel. **Towards Effective Localization in Dynamic Environments.** In: *2016 IEEE/RSJ International Conference on Intelligent Robots and Systems, IROS 2016, Daejeon, South Korea, October 9-14, 2016.* 2016, pp. 4517–4523.
- [14] Florian Geißer, Thomas Keller, and Robert Mattmüller. **Delete Relaxations for Planning with State-Dependent Action Costs.** In: *Proceedings of the Twenty-Fourth International Joint Conference on Artificial Intelligence, IJCAI 2015, Buenos Aires, Argentina, July 25-31, 2015.* 2015, pp. 1573–1579.
- [15] Thomas Keller and Florian Geißer. **Better Be Lucky Than Good: Exceeding Expectations in MDP Evaluation.** In: *Proceedings of the Twenty-Ninth AAAI Conference on Artificial Intelligence, January 25-30, 2015, Austin, Texas, USA.* 2015, pp. 3540–3547.
- [16] Florian Geißer, Thomas Keller, and Robert Mattmüller. **Past, Present, and Future: An Optimal Online Algorithm for Single-Player GDL-II Games.** In: *ECAI 2014 - 21st European Conference on Artificial Intelligence, 18-22 August 2014, Prague, Czech Republic - Including Prestigious Applications of Intelligent Systems (PAIS 2014).* 2014, pp. 357–362.

Publications in Workshop Proceedings

- [17] Patrick Ferber, Florian Geißer, Felipe Trevizan, Malte Helmert, and Jörg Hoffmann. **Neural Network Heuristic Functions for Classical Planning: Reinforcement Learning and Comparison to Other Methods.** In: *PRL Workshop—Bridging the Gap Between AI Planning and Reinforcement Learning.* 2021.
- [18] Ziqi Zhang and Florian Geißer. **Extending Graph Neural Networks for Generalized Stochastic Planning.** In: *PRL Workshop—Bridging the Gap Between AI Planning and Reinforcement Learning.* 2021.

- [19] Florian Geißer, David Speck, and Thomas Keller. **An Analysis of the Probabilistic Track of the IPC 2018**. In: *Workshop on the International Planning Competition (WIPC)*. 2019.
- [20] Robert Mattmüller, Florian Geißer, Benedict Wright, and Bernhard Nebel. **On the Relationship Between State-Dependent Action Costs and Conditional Effects in Planning**. In: *Proceedings of the 9th Workshop on Heuristics and Search for Domain-independent Planning (HSDIP)*. 2017, pp. 10–18.

Extended Abstracts.

- [21] Florian Geißer, Thomas Keller, and Robert Mattmüller. **Delete Relaxations for Planning with State-Dependent Action Costs**. In: *Proceedings of the Eighth Annual Symposium on Combinatorial Search, SOCS 2015, 11-13 June 2015, Ein Gedi, the Dead Sea, Israel*. 2015, pp. 228–229.

Planner Abstracts.

- [22] Florian Geißer and David Speck. **Prost-DD—Utilizing Symbolic Classical Planning in THTS**. In: *Sixth International Probabilistic Planning Competition (IPC-6): planner abstracts* (2018), pp. 13–16.
- [23] David Speck, Florian Geißer, and Robert Mattmüller. **SYMPLE: Symbolic Planning based on EVMDDs**. In: *IPC-9 planner abstracts* (2018), pp. 91–94.

Errata

- In [15]: On page 7, we mention that the results at IPPC would have differed by -0.09 , $+0.04$ and $+0.05$, which should read -0.009 , $+0.004$ and $+0.005$ instead.