

Curriculum Vitae

Dr. Álvaro Torralba

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G. Scholar : <https://scholar.google.com/citations?user=zXjuraoAAAAJ>
Born : September 10, 1985 — Madrid, Spain
Nationality: Spanish

Current position

Post-doc researcher at Helmholtz Center for Information Security (CISPA), Saarland Informatics Campus, Saarbrücken, Germany.

Areas of specialization

Artificial Intelligence, Automated Planning, Heuristic Search

Two Highlighted Publications

- Á. Torralba, V. Alcázar, P. Kissmann, S. Edelkamp,
Efficient Symbolic Search for Cost-Optimal Planning,
Artificial Intelligence Journal, 2017.
<http://fai.cs.uni-saarland.de/torralba/papers/aij17.pdf>
- Á. Torralba,
From Qualitative to Quantitative Dominance Pruning for Optimal Planning,
Proc. of the 26th International Joint Conference on Artificial Intelligence (IJCAI'17).
<http://fai.cs.uni-saarland.de/torralba/papers/ijcai17a.pdf>

Other Selected Publications

- Á. Torralba, C. Linares López, D. Borrajo *Symbolic Perimeter Abstraction Heuristics for Cost-Optimal Planning*, Artificial Intelligence Journal, 2018.
- J. Daum, Á. Torralba, J. Hoffmann, P. Haslum, and I. Weber, *Practical Undoability Checking via Contingent Planning*, Proc. of the 26th International Conference on Automated Planning and Scheduling (ICAPS'16). Outstanding Student Paper Award.
- Á. Torralba and P. Kissmann, *Focusing on What Really Matters: Irrelevance Pruning in Merge-and-Shrink*, Proc. of the 8th Symposium on Combinatorial Search (SOCS'15). Best Paper Award
- Á. Torralba and J. Hoffmann, *Simulation-Based Admissible Dominance Pruning*, Proc. of the 24th International Joint Conference on Artificial Intelligence (IJCAI'15).
- Á. Torralba, V. Alcázar *Constrained Symbolic Search: On Mutexes, BDD Minimization and More*, Proc. of the 6th Symposium on Combinatorial Search (SOCS'13). Best Paper Award

Positions

- 2019 – now Post-doc researcher at Helmholtz Center for Information Security (CISPA), Saarland Informatics Campus, Saarbrücken, Germany.
- 2014 – 2019 Post-doc researcher at Saarland University, Saarland Informatics Campus, Saarbrücken, Germany.
- 2010 – 2014 P.h.D. student, funded member of graduate school at Universidad Carlos III de Madrid.
- 2009 – 2010 Technical support for research at Universidad Carlos III de Madrid.

Qualifications

- 2015 Promotion to Dr. at Universidad Carlos III de Madrid, Spain.
“Symbolic Search and Abstraction Heuristics for Cost-Optimal Planning”.
Supervisors: Prof. Daniel Borrajo and Prof. Carlos Linares López.
Final grade: “cum laude”.
- 2010 Master in Computer Science and Technology.
Universidad Carlos III de Madrid
- 2009 Diploma in Computer Science Engineering.
Universidad Carlos III de Madrid

Awards

- 2016 **Honorable Mention in ICAPS Best Dissertation Award 2016.**
- 2016 **ICAPS 2016 Outstanding Student Paper Award.** For the paper *Practical Undoability Checking via Contingent Planning*, co-authored with Jeanette Daum, Jörg Hoffmann, Patrik Haslum, and Ingo Weber.
- 2016 Developer of the *SymPA* planner, **runner-up of the 1st unsolvability international planning competition (IPC'16).**
- 2015 **Best Paper Award at the 8th Symposium on Combinatorial Search (SoCS'15).** For the paper *Focusing on What Really Matters: Irrelevance Pruning in Merge-and-Shrink*, co-authored with Peter Kissmann.
- 2014 Developer of the *SymBA**-2 planner, **winner of the sequential-optimal track of the 8th international planning competition (IPC'14).** (joint work with Vidal Alcázar, Peter Kissmann, Stefan Edelkamp, and Daniel Borrajo)
- 2014 Developer of the *cGamer* planner, **runner-up of the sequential-optimal track of the 8th international planning competition (IPC'14).** (joint work with Vidal Alcázar, Peter Kissmann, and Stefan Edelkamp)
- 2013 **Best Paper Award at the 6th Symposium on Combinatorial Search (SoCS'13).** For the paper *Constrained Symbolic Search: On Mutexes, BDD Minimization and More*, co-authored with Vidal Alcázar.

Visits

- 2019 Visit to Antonín Komenda in Czech Technical University in Prague, Czech Republic. (1 week)
- 2018 Visit to Malte Helmert in Universität Basel, Switzerland. (1 week)
- 2014–2018 Visit to Carlos Areces in Universidad Nacional de Córdoba, Argentina. (Globally 3 months in 4 visits)
- 2012 Visit to Stefan Edelkamp in Universität Bremen, Germany. (3 months)

Publications

Journal Articles

1. Á. Torralba, C. Linares López, D. Borrajo, *Symbolic Perimeter Abstraction Heuristics for Cost-Optimal Planning*, Artificial Intelligence Journal, 2018.

2. Á. Torralba, V. Alcázar, P. Kissmann, S. Edelkamp, *Efficient Symbolic Search for Cost-Optimal Planning*, Artificial Intelligence Journal, 2017.
3. V. Demberg, J. Hoffmann, D. Howcroft, D. Klakow, and Á. Torralba, *Search Challenges in Natural Language Generation with Complex Optimization Objectives*, Kuenstliche Intelligenz, 2015.
4. J. García, J. E. Flórez, Á. Torralba, D. Borrajo C. Linares López, A. García Olaya and J. Sáenz, *Combining linear programming and automated planning to solve inter-modal transportation problems*, European Journal of Operational Research, 2013

Conference Papers

5. R. Eifler, M. Steinmetz, Á. Torralba and J. Hoffmann, *Plan-Space Explanation via Plan-Property Dependencies: Faster Algorithms & More Powerful Properties*, Proceedings of the 29th International Joint Conference on Artificial Intelligence (IJCAI'20).
6. J. Wichlacz, D. Höller, Á. Torralba and J. Hoffmann, *Applying Monte-Carlo Tree Search in HTN Planning*, Proceedings of the 13th Annual Symposium on Combinatorial Search (SOCS'20).
7. Á. Torralba, S. Sievers, *Merge-and-Shrink Task Reformulation for Classical Planning*, Proceedings of the 28th International Joint Conference on Artificial Intelligence (IJCAI'19).
8. S. Franco, Á. Torralba, *Interleaving Heuristic Improvement and Search*, Proceedings of the 12th Annual Symposium on Combinatorial Search (SOCS'19).
9. M. Steinmetz, Á. Torralba, *Bridging the Gap Between Abstractions and Critical-Path Heuristics via Hypergraphs*, Proceedings of the 29th International Conference on Automated Planning and Scheduling (ICAPS'19).
10. D. Speck, F. Geißer, R. Mattmüller, Á. Torralba, *Symbolic Planning with Axioms*, Proceedings of the 29th International Conference on Automated Planning and Scheduling (ICAPS'19).
11. D. Gnad, Á. Torralba, M. Dominguez, C. Areces, F. Bustos, *Learning How to Ground a Plan - Partial Grounding in Classical Planning*, Proceedings of the 33rd AAAI Conference on Artificial Intelligence (AAAI'19).
12. D. Fišer, Á. Torralba, A. Shleyfman, *Operator Mutexes and Symmetries for Simplifying Planning Tasks*, Proceedings of the 33rd AAAI Conference on Artificial Intelligence (AAAI'19).
13. Á. Torralba, *Completeness-Preserving Dominance Techniques for Satisficing Planning*, Proceedings of the 27th International Joint Conference on Artificial Intelligence (IJCAI'18).

14. Á. Torralba, *From Qualitative to Quantitative Dominance Pruning*, Proceedings of the 26th International Joint Conference on Artificial Intelligence (IJCAI'17).
15. S. Franco, Á. Torralba, L. H. S. Lelis, and M. Barley, *On Creating Complementary Pattern Databases*, Proceedings of the 26th International Joint Conference on Artificial Intelligence (IJCAI'17).
16. D. Gnad, Á. Torralba, and J. Hoffmann, *Symbolic Leaf Representation in Decoupled Search*, Proceedings of the 10th Annual Symposium on Combinatorial Search (SOCS'17).
17. D. Gnad, Á. Torralba, A. Shleyfman, and J. Hoffmann, *Symmetry Breaking in Star-Topology Decoupled Search*, Proceedings of the 27th International Conference on Automated Planning and Scheduling (ICAPS'17).
18. M. Schwenger, Á. Torralba, J. Hoffmann, D. Howcroft, V. Demberg, *From OpenCCG to AI Planning: Detecting Infeasible Edges in Sentence Generation*, Proceedings of the 26th International Conference on Computational Linguistics (Coling'16).
19. Á. Torralba, D. Gnad, P. Dubbert, J. Hoffmann, *On State-Dominance Criteria in Fork-Decoupled Search*, Proceedings of the 25th International Joint Conference on Artificial Intelligence (IJCAI'16).
20. Á. Torralba, C. Linares López, D. Borrajo, *Abstraction Heuristics for Symbolic Bidirectional Search*, Proceedings of the 25th International Joint Conference on Artificial Intelligence (IJCAI'16).
21. J. Daum, Á. Torralba, J. Hoffmann, P. Haslum, and I. Weber, *Practical Undoability Checking via Contingent Planning*, Proceedings of the 26th International Conference on Automated Planning and Scheduling (ICAPS'16).
22. Á. Torralba and P. Kissmann, *Focusing on What Really Matters: Irrelevance Pruning in Merge-and-Shrink*, Proceedings of the 8th Symposium on Combinatorial Search (SOCS'15).
23. Á. Torralba and J. Hoffmann, *Simulation-Based Admissible Dominance Pruning*, Proceedings of the 24th International Joint Conference on Artificial Intelligence (IJCAI'15).
24. V. Alcázar and Á. Torralba, *A Reminder about the Importance of Computing and Exploiting Invariants in Planning*, Proceedings of the 25th International Conference on Automated Planning and Scheduling (ICAPS'15).
25. S. Edelkamp, P. Kissmann and Á. Torralba, *BDDs Strike Back (in AI Planning)*, Proceedings of the 29th AAAI Conference on Artificial Intelligence (AAAI'15).
26. J. Hoffmann, P. Kissmann, and Á. Torralba, *"Distance"? Who Cares? Tailoring Merge-and-Shrink Heuristics to Detect Unsolvability*, Proceedings of the 21st European Conference on Artificial Intelligence (ECAI'14).

27. Á. Torralba, V. Alcázar, *Constrained Symbolic Search: On Mutexes, BDD Minimization and More*, Proceedings of the 6th Symposium on Combinatorial Search (SOCS'13).
28. Á. Torralba, C. Linares López, D. Borrajo, *Symbolic Merge-and-Shrink for Cost-Optimal Planning*, Proceedings of the 23rd International Joint Conference on Artificial Intelligence (IJCAI'13).
29. Á. Torralba, S. Edelkamp, P. Kissmann, *Transition Trees for Cost-Optimal Symbolic Planning*, Proceedings of the 23rd International Conference on Automated Planning and Scheduling (ICAPS'13).
30. S. Edelkamp, P. Kissmann, Á. Torralba, *Symbolic A* Search with Pattern Databases and the Merge-and-Shrink Abstraction* Proceedings of the 20th European Conference on Artificial Intelligence (ECAI'12).
31. Á. Parra, Á. Torralba, C. Linares López, *Precomputed-Direction Heuristics for Sub-optimal Grid-Based Path-finding*, Proceedings of the 5th Symposium on Combinatorial Search (SOCS'12).
32. J. E. Flórez, Á. Torralba, J. García, C. Linares López, A. García Olaya, D. Borrajo, *Planning Multi-Modal Transportation Problems*, Proceedings of the 21st International Conference on Automated Planning and Scheduling (ICAPS'11).
33. Á. Torralba, C. Linares López, *Size-Independent Additive Pattern Databases for the Pancake Problem*, Proceedings of the 4th Symposium on Combinatorial Search (SOCS'11).

Parts of Books

34. J. García, Á. Torralba, J. E. Flórez, D. Borrajo, C. Linares López and A. García Olaya, *TIMIPLAN: A Tool for Transportation Tasks Autonomic Road Transport Support Systems*, Part of the series Autonomic Systems, Springer, pp. 269-285, May 2016.

Workshop Papers

35. J. Wichlacz, A. Torralba, and J. Hoffmann, *Construction-Planning Models in Minecraft*, Proceedings of the 2nd Workshop on Hierarchical Planning (ICAPS'19).
36. A. Torralba and S. Sievers, *Merge-and-Shrink Task Reformulation for Classical Planning*, Proceedings of the 11th Workshop on Heuristic Search for Domain-Independent Planning (HSDIP'19)
37. D. Gnad, A. Torralba, M. Dominguez, C. Areces and F. Bustos, *Learning How to Ground a Plan - Partial Grounding in Classical Planning*, Proceedings of the 11th Workshop on Heuristic Search for Domain-Independent Planning (HSDIP'19)

38. Á. Torralba, *Completeness-Preserving Dominance Techniques for Satisficing Planning*, Proceedings of the 10th Workshop on Heuristic Search for Domain-Independent Planning (HSDIP'18)
39. Á. Torralba, *From Qualitative to Quantitative Dominance Pruning*, Proceedings of the 9th Workshop on Heuristic Search for Domain-Independent Planning (HSDIP'17)
40. Á. Torralba, C. Linares López, D. Borrajo, *Abstraction Heuristics for Symbolic Bidirectional Search*, Proceedings of the 8th Workshop on Heuristic Search for Domain-Independent Planning (HSDIP'16).
41. Á. Torralba, D. Gnad, P. Dubbert, J. Hoffmann, *On State-Dominance Criteria in Fork-Decoupled Search*, Proceedings of the 8th Workshop on Heuristic Search for Domain-Independent Planning (HSDIP'16).
42. A. Torralba and J. Hoffmann, *Simulation-Based Admissible Dominance Pruning*, Proceedings of the 7th Workshop on Heuristic Search for Domain-Independent Planning (HSDIP'15).
43. J. Hoffmann, P. Kissmann, and A. Torralba, *"Distance"? Who Cares? Tailoring Merge-and-Shrink Heuristics to Detect Unsolvability*, Proceedings of the 6th Workshop on Heuristic Search for Domain-Independent Planning (HSDIP'14).
44. S. Edelkamp, P. Kissmann, Á. Torralba *Symbolic A* Search with Pattern Databases and the Merge-and-Shrink Abstraction* Proceedings of the 4th Workshop on Heuristic Search for Domain-Independent Planning (HSDIP'12).
45. S. Edelkamp, P. Kissmann, Á. Torralba, *Lex-Partitioning: A New Option for BDD Search*, First Workshop on GRAPH Inspection and Traversal Engineering, GRAPHITE 2012.

Other Publications

46. A. Torralba, *SymPA: Symbolic Perimeter Abstractions for Proving Unsolvability*, in Proceedings of the 1st Unsolvability International Planning Competition (IPC 2016), at ICAPS'16.
47. A. Torralba J. Hoffmann, and P. Kissmann, *MS-Unsat and SimulationDominance: Merge-and-Shrink and Dominance Pruning for Proving Unsolvability*, in Proceedings of the 1st Unsolvability International Planning Competition (IPC 2016), at ICAPS'16.
48. D. Gnad, A. Torralba, J. Hoffmann, and M. Wehrle, *Decoupled Search for Proving Unsolvability*, in Proceedings of the 1st Unsolvability International Planning Competition (IPC 2016), at ICAPS'16.
49. A. Torralba, V. Alcázar, P. Kissmann and S. Edelkamp *cGamer: Constrained Gamer*, in Proceedings of the 8th International Planning Competition (IPC 2014) at ICAPS'14.

50. A. Torralba, V. Alcázar, C. Linares López and D. Borrajo, *SPM&S Planner: Symbolic Perimeter Merge-and-Shrink*, in Proceedings of the 8th International Planning Competition (IPC 2014) at ICAPS'14.
51. A. Torralba, V. Alcázar and D. Borrajo, *SymBA*: A Symbolic Bidirectional A* Planner*, in Proceedings of the 8th International Planning Competition (IPC 2014) at ICAPS'14.

Teaching

Main Lectures and Seminars

- | | |
|--------------------|---|
| Summer 2019 | <i>Artificial Intelligence</i> , Core Lecture, Saarland University. (co-lectured with Jana Koehler) |
| Winter 2018 – 2019 | <i>AI Planning</i> , Specialized Lecture in Artificial Intelligence, Saarland University. |
| Summer 2018 | <i>Artificial Intelligence</i> , Core Lecture, Saarland University. (co-lectured with Wolfgang Wahlster) |
| Summer 2017 | <i>Artificial Intelligence</i> , Core Lecture, Saarland University. (co-lectured with Jörg Hoffmann and Wolfgang Wahlster) |
| Winter 2016 – 2017 | <i>Automatic Planning</i> , Specialized Lecture in Artificial Intelligence, Saarland University. (co-lectured with Jörg Hoffmann) |
| Summer 2017 | <i>Search Problems in Natural Language Processing</i> , Seminar, Saarland University. (co-lectured with Jörg Hoffmann) |
| Winter 2016 – 2017 | <i>Search Problems in Natural Language Processing</i> , Seminar, Saarland University. (co-lectured with Jörg Hoffmann) |
| Summer 2016 | <i>Admissible Search Enhancements</i> , Seminar, Saarland University. (co-lectured with Jörg Hoffmann, Daniel Gnad, and Marcel Steinmetz) |
| Winter 2015 – 2016 | <i>Automatic Planning</i> , Specialized Lecture in Artificial Intelligence, Saarland University. (co-lectured with Jörg Hoffmann) |
| Winter 2015 – 2016 | <i>Admissible Search Enhancements</i> , Seminar, Saarland University. (co-lectured with Jörg Hoffmann, Daniel Gnad, and Marcel Steinmetz) |
| Summer 2015 | <i>Heuristic Search for MDPs</i> , Seminar, Saarland University. (co-lectured with Jörg Hoffmann and Peter Kissmann) |
| Winter 2014 – 2015 | <i>Heuristic Search for MDPs</i> , Seminar, Saarland University. (co-lectured with Jörg Hoffmann and Peter Kissmann) |

Summer 2014 *Planning and Learning*, Seminar, Saarland University. (co-lectured with Jörg Hoffmann and Peter Kissmann)

Teaching Assistant

Winter 2017 – 2018 *Automatic Planning*, Specialized Lecture in Artificial Intelligence, Saarland University. (co-assistant with Cosmina Croitoru)

Summer 2016 *Artificial Intelligence*, Core Lecture, Saarland University. (co-assistant with Daniel Gnad, Marcel Steinmetz and student tutors)

Summer 2015 *Artificial Intelligence*, Core Lecture, Saarland University. (co-assistant with Daniel Gnad, Marcel Steinmetz and student tutors)

Winter 2014 – 2015 *Automatic Planning*, Specialized Lecture in Artificial Intelligence, Saarland University. (co-assistant with Peter Kissmann and Daniel Gnad)

Summer 2014 *Artificial Intelligence*, Core Lecture, Saarland University. (co-assistant with Peter Kissmann and student tutors)

Winter 2013 – 2014 *Heuristic Search and Optimization*, Core Lecture, Universidad Carlos III de Madrid. (co-assistant with Jesús Virseda)

Winter 2012 – 2013 *Heuristic Search and Optimization*, Core Lecture, Universidad Carlos III de Madrid. (co-assistant with Vidal Alcázar)

Winter 2011 – 2012 *Heuristic Search and Optimization*, Core Lecture, Universidad Carlos III de Madrid. (co-assistant with Vidal Alcázar)

Winter 2010 – 2011 *Programming*, Core Lecture, Universidad Carlos III de Madrid.

Supervision of Master Thesis

2019 *Partial Grounding Techniques*. by Melis Tanriverdi (co-supervised with Jörg Hoffmann and Daniel Gnad), Saarland University.

2018 *Conditional Simulation-Based Dominance Pruning*. by Anna Wilhelm (co-supervised with Jörg Hoffmann), Saarland University.

2017 *Dynamic Merging Strategies for Merge and Shrink Unsolvability Heuristics*. by Muhammad Lathif Pambudi (co-supervised with Jörg Hoffmann), Saarland University.

2017 *Planning intelligent agents in Minecraft using ActorSim*. by Soumya Chakraborty (co-supervised with Jörg Hoffmann), Saarland University.

2017 *Planning Methods in Linguistic Distance*. by Jeanette Aline Daum (co-supervised with Jörg Hoffmann), Saarland University.

2015 *Fork-Decoupled FOND Planning* by Robin Wagner (co-supervised with Jörg Hoffmann and Daniel Gnad), Saarland University.

Supervision of Bachelor Thesis

2019 *Comparing and Combining Novelty and Dominance Pruning.* by Joschka Florenz Groß(co-supervised with Jörg Hoffmann), Saarland University.

2018 *Data structures for Dominance Checking.* by Florian Pham (co-supervised with Jörg Hoffmann), Saarland University.

2016 *An Analysis of OpenCCGs Search Space.* by Julia Wichlacz (co-supervised with Jörg Hoffmann), Saarland University.

2016 *Building a Partial Sentence Completion Quality Predictor for OpenCCG.* by Polina Stadnikova (co-supervised with Jörg Hoffmann and Vera Demberg), Saarland University.

2015 *When a Sentence falls apart. . . Using heuristically guided dead end detection in sentence realization* by Maximilian Schwenger (co-supervised with Jörg Hoffmann, David Howcraft and Vera Demberg), Saarland University.

2015 *Dominance Pruning Methods for Fork-Decoupled Search* by Patrick Dubbert (co-supervised with Jörg Hoffmann and Daniel Gnad), Saarland University.

2015 *Search Algorithms and Determinization Heuristics in Simulated Pentesting* by Luise Odenthal (co-supervised with Jörg Hoffmann), Saarland University.

2015 *Búsqueda de caminos en mapas de videojuegos: desarrollo de técnicas de búsqueda de caminos con preprocesamiento para mapas de videojuegos* by Álvaro Parra de Miguel, Universidad Carlos III de Madrid.

2014 *Learning Pattern Collections* by Maike Maas (co-supervised with Jörg Hoffmann), Saarland University.

2014 *Exploiting Portfolios in the Usage of Learned Pruning Rules for Heuristic Search Planning* by Valerie Poser (co-supervised with Jörg Hoffmann and Olivier Buffet), Saarland University.

2014 *Understanding the Learning and Usage of Pruning Rules for Heuristic Search Planning* by Inken Hagestedt (co-supervised with Jörg Hoffmann, Alan Fern, and Olivier Buffet), Saarland University.

2014 *Analizador de posiciones del tablero del Go* by Javier Huertas Tato (co-supervised with Daniel Borrajo), Universidad Carlos III de Madrid.

2013 *Jaminion: Plataforma de Dominion* by Sergio Durán Vegas, Universidad Carlos III de Madrid.

Scientific Activities

Event Organization

- Organizer of the Doctoral Consortium at ICAPS'20
- Organizer of the 2018th edition of the International Planning Competition (IPC'18).

Workshop Organization

- Organizer of the 12th edition of the Heuristics and Search for Domain-independent Planning Workshop (HSDIP'20).
- Organizer of the Workshop on the International Planning Competition (WIPC'19).
- Organizer of the 9th edition of the Heuristics and Search for Domain-independent Planning Workshop (HSDIP'17).
- Organizer of the 8th edition of the Heuristics and Search for Domain-independent Planning Workshop (HSDIP'16).

Tutorial Organization

- AAAI 2019: An Overview of the International Planning Competition
- ICAPS 2017: Alternatives to Explicit State Space Search: Symbolic Search
- ICAPS 2017: Alternatives to Explicit State Space Search: Decoupled Search

Event Participation

- Talk on "Large-Scale Symbolic Search" in the "International Workshop on Pattern Databases and Large-Scale Search" in Freie Universität Berlin (PDB 18).
- "Panel on the Past, Present, and Future of Domain Independent Heuristic Search" in the 10th edition of the Heuristics and Search for Domain-independent Planning Workshop (HSDIP'18).

Journal Reviewer

- Artificial Intelligence Journal
- Journal of Artificial Intelligence Research
- AI Communications

Conference Reviewer

- Program Committee of the *13th Symposium on Combinatorial Search (SOCS'20)*.
- Program Committee of the *29th International Joint Conference on Artificial Intelligence (IJCAI'20)*.
- Program Committee of the *24th European Conference on Artificial Intelligence (ECAI'20)*.
- Program Committee of the *29th International Conference on Automated Planning and Scheduling (ICAPS'20)*.
- Senior Program Committee of the *34th AAAI Conference on Artificial Intelligence (AAAI'20)*.
- Program Committee of the *12th Symposium on Combinatorial Search (SOCS'19)*.
- Program Committee of the *28th International Joint Conference on Artificial Intelligence (IJCAI'19)*.
- Program Committee of the *Demo-Track of the 28th International Joint Conference on Artificial Intelligence (IJCAI'19)*.
- Program Committee of the *29th International Conference on Automated Planning and Scheduling (ICAPS'19)*.
- Program Committee of the *33rd AAAI Conference on Artificial Intelligence (AAAI'19)*.
- Program Committee of the *11th Symposium on Combinatorial Search (SOCS'18)*.
- Program Committee of the *27th International Joint Conference on Artificial Intelligence (IJCAI'18)*, 2-star distinguished member¹.
- Program Committee of the *Demo-Track of the 27th International Joint Conference on Artificial Intelligence (IJCAI'18)*.
- Program Committee of the *28th International Conference on Automated Planning and Scheduling (ICAPS'18)*.
- Program Committee of the *32nd AAAI Conference on Artificial Intelligence (AAAI'18)*.
- Program Committee of the *10th Symposium on Combinatorial Search (SOCS'17)*.
- Program Committee of the *26th International Joint Conference on Artificial Intelligence (IJCAI'17)*.

¹<https://www.ijcai-18.org/distinguished-members/>

- Program Committee of the *Demo-Track of the 26th International Joint Conference on Artificial Intelligence (IJCAI'17)*.
- Program Committee of the *27th International Conference on Automated Planning and Scheduling (ICAPS'17)*.
- Program Committee of the *31st AAAI Conference on Artificial Intelligence (AAAI'17)*.
- Program Committee of the *25th International Joint Conference on Artificial Intelligence (IJCAI'16)*.
- Program Committee of the *Demo-Track of the 25th International Joint Conference on Artificial Intelligence (IJCAI'16)*.
- Program Committee of the *26th International Conference on Automated Planning and Scheduling (ICAPS'16)*.
- Program Committee of the *8th Symposium on Combinatorial Search (SOCS'15)*.
- Program Committee of the *24th International Joint Conference on Artificial Intelligence (IJCAI'15)*.
- Program Committee of the *29th AAAI Conference on Artificial Intelligence (AAAI'15)*.
- Program Committee of the *7th Symposium on Combinatorial Search (SOCS'14)*.
- Additional Reviewer of the *25th International Conference on Automated Planning and Scheduling (ICAPS'15)*.
- Additional Reviewer of the *24th International Conference on Automated Planning and Scheduling (ICAPS'14)*.
- Additional Reviewer of the *6th Symposium on Combinatorial Search (SOCS'13)*.
- Additional Reviewer of the *5th Symposium on Combinatorial Search (SOCS'12)*.

Membership in Ph.D. Committees

- August 2017, Mittul Singh, Saarland University
- March 2017, Isabel Cenamor, Universidad Carlos III de Madrid
- May 2016, Stefan Richter, Saarland University
- December 2015, Stefan Schuh, Saarland University

Third-Party Funding

I have collaborated in the following project proposals:

- Successful proposal for the DFG Collaborative Research Center *Information Density and Linguistic Encoding*, ca. 8 million EUR funding for the second funding phase 2018-2022 (I collaborated in project A7 with PI's Jörg Hoffmann and Alexander Koller).
- Successful proposal for the DAAD exchange project *Optimizing Planning Domains*, 12795 EUR funding, 2017-2018 (PI Jörg Hoffmann, I wrote most of the proposal).