

# List of Publications

(2004–2024)

## Computational Intelligence Group

(Clausthal University of Technology)

Chair: Prof. Dr. J. Dix

October 10, 2024

This list, starting in 2004, when the *Chair for Computational Intelligence* in Clausthal was founded, shows the publications of Prof. Dr. Jürgen Dix and his group members as well as theses (Habilitation, PhD, Diploma, Master and Bachelor) written under his supervision.

In total (2004–2024):

**29 Edited Books;**

**19 Edited Special Journal Issues;**

**11 Invited Chapters in Books;**

**72 Journal Articles;**

**116 Workshop/Conference papers (refereed);**

**51 Technical Reports;**

**2 Habilitations;**

**11 PhD;**

**53 Diploma/Master/Bachelor theses.**

### **Publications in 2024:**

**(2 Journal, 1 Book, 1 PhD, 2 BSc)**

#### **Journal Articles (2)**

364. Tabajara Krausburg, Rafael H. Bordini, and Jürgen Dix. Modelling a chain of command in the incident command system using sequential characteristic function games. *Ann. Math. Artif. Intell.*, 92(4):925–951, 2024
363. Amit K. Chopra, Jürgen Dix, and Rym Zalila-Wenkstern. Introduction to the special issue: selected papers from EMAS 2022. *Ann. Math. Artif. Intell.*, 92(4):773–774, 2024

#### **Special Issue (1)**

362. Amit K. Chopra, Jürgen Dix, and Rym Zalila-Wenkstern, editors. *Selected Papers from EMAS 2022: 10th International Workshop on Engineering Multi-Agent Systems*, volume 92 of *Annals of Mathematics and Artificial Intelligence*. Springer, 2024

#### **PhD thesis (1)**

361. Tobias Ahlbrecht. *Goal-based debugging for belief-desire-intention agents*. PhD thesis, Clausthal University of Technology, Clausthal-Zellerfeld, Germany, 2024

## BSc theses (2)

- 360. Mustafa Nazim Salih Abdalla. Beyond Tablebases: Utilising Neural Networks for Efficient Chess Endgame Resolution, September 2024. Bachelor thesis
- 359. Nikita Mironov. Entwurf einer domänen spezifischen Sprache zur Optimierung der Szenario-Modellierung für den Multi-Agent Programming Contest, April 2024. Bachelor thesis

## Publications in 2023:

(3 Journal, 1 Book, 1 Conf, 1 BSc)

### Journal Articles (3)

- 358. Jürgen Dix and Zhongfei Zhang. Ai's 10 to watch, 2022. *IEEE Intell. Syst.*, 38(2):3–14, 2023
- 357. Tobias Ahlbrecht. An algorithmic debugging approach for belief-desire-intention agents. *Annals of Mathematics and Artificial Intelligence*, pages 1–18, 2023
- 356. Tobias Ahlbrecht, Jürgen Dix, Niklas Fiekas, and Tabajara Krausburg. The multi-agent programming contest 2022. In Tobias Ahlbrecht, Jürgen Dix, Niklas Fiekas, and Tabajara Krausburg, editors, *The Multi-Agent Programming Contest 2022*, pages 1–18, Cham, 2023. Springer International Publishing

### Book (1)

- 355. Tobias Ahlbrecht, Jürgen Dix, Niklas Fiekas, and Tabajara Krausburg. *The Multi-Agent Programming Contest 2022: Coordinating Agents in a Dynamic World: Agents Follow the Rules, or Not*, volume 13997. Springer Nature, 2023

### Conference Paper (1)

- 354. Tonmoay Deb, Jürgen Dix, Mingi Jeong, Cristian Molinaro, Andrea Pugliese, Alberto Quattrini Li, Eugene Santos Jr., V. S. Subrahmanian, Shanchieh Yang, and Youzhi Zhang. DUCK: A drone-urban cyber-defense framework based on pareto-optimal deontic logic agents. In Brian Williams, Yiling Chen, and Jennifer Neville, editors, *Thirty-Seventh AAAI Conference on Artificial Intelligence, AAAI 2023, Thirty-Fifth Conference on Innovative Applications of Artificial Intelligence, IAAI 2023, Thirteenth Symposium on Educational Advances in Artificial Intelligence, EAAI 2023, Washington, DC, USA, February 7-14, 2023*, pages 16425–16427. AAAI Press, 2023

## BSc thesis (1)

353. Tung Hoang. Lernende Agenten basierend auf dem Belief-Desire-Intention Modell, March 2023. Bachelor thesis

## Publications in 2022:

(1 Journal, 1 Conf, 1 PhD, 5 BSc/MSc)

### Journal Article (1)

352. Paula Böhm. Optimization-based agents in the 16th multi-agent programming contest. In Tobias Ahlbrecht, Jürgen Dix, Niklas Fiekas, and Tabajara Krausburg, editors, *The Multi-Agent Programming Contest 2022 - Coordinating Agents in a Dynamic World: Agents Follow the Rules, or Not*, volume 13997 of *Lecture Notes in Computer Science*, pages 19–53. Springer, 2022

### Workshop/Conference Paper (1)

351. Tabajara Krausburg, Jürgen Dix, and Rafael H. Bordini. An mcts-based algorithm to solve sequential cfgs on valuation structures. In Reyhan Aydogan, Natalia Criado, Jérôme Lang, Víctor Sánchez-Anguix, and Marc Serramia, editors, *PRIMA 2022: Principles and Practice of Multi-Agent Systems - 24th International Conference, Valencia, Spain, November 16–18, 2022, Proceedings*, volume 13753 of *Lecture Notes in Computer Science*, pages 399–416. Springer, 2022

### PhD thesis (1)

350. Tabajara Krausburg. *Sequences of coalition structures in multi-agent systems applied to disaster response*. PhD thesis, Clausthal University of Technology, Clausthal-Zellerfeld, Germany, 2022

## BSc theses (4), Master thesis (1)

349. Paula Böhm. Optimierungsbaserte Agenten im MAPC, December 2022. Master thesis
348. Yamen Sahyouni. Application and adaptation of generic BDI agent modules, November 2022. Bachelor thesis
347. Nader Jawhary. Module Documentation for BDI Agents, October 2022. Bachelor thesis
346. Yuanjing Pu. Reimplementing the AlphaGo Zero Algorithm for the Game of Gomoku, March 2022. Bachelor thesis

345. Till J. Markusch. Konzepte für Multi-Agenten Simulationen basierend auf dem Multi-Agent Programming Contest, February 2022. Bachelor thesis

## **Publications in 2021:**

(3 Journal, 3 Books, 3 Conf)

### **Journal Articles (3)**

344. Tobias Ahlbrecht, Jürgen Dix, Niklas Fiekas, and Tabajara Krausburg. The 15th multi-agent programming contest. In *The Multi-Agent Programming Contest 2021*, volume 12947 of *LNCS/LNAI*, pages 3–20. Springer, 2021
343. Rafael C. Cardoso, Angelo Ferrando, Daniela Briola, Claudio Menghi, and Tobias Ahlbrecht. Agents and robots for reliable engineered autonomy: A perspective from the organisers of AREA 2020. *J. Sens. Actuator Networks*, 10(2):33, 2021
342. Jürgen Dix, Brian Logan, and Michael Winikoff. Preface to the special issue on engineering reliable multi-agent systems. *Auton. Agents Multi Agent Syst.*, 35(2):37, 2021

### **Book (1), Special Issues(2)**

341. Tobias Ahlbrecht, Jürgen Dix, Niklas Fiekas, and Tabajara Krausburg, editors. *The Multi-Agent Programming Contest 2021*, volume 12947 of *LNCS/LNAI*. Springer, Cham, 2021
340. Jürgen Dix, Brian Logan, and Michael Winikoff, editors. *Special Issue on engineering reliable multi-agent systems*, volume 35 of *Autonomous Agents and Multi-Agent Systems*. Springer, 2021
339. Rafael C. Cardoso, Angelo Ferrando, Daniela Briola, Claudio Menghi, and Tobias Ahlbrecht. Special issue: Agents and robots for reliable engineered autonomy. *J. Sens. Actuator Networks*, 10(3):47, 2021

### **Workshop/Conference Papers (4)**

338. Débora C. Engelmann, Juliana Damasio, Tabajara Krausburg, Olimar Teixeira Borges, Lucca Dornelles Cezar, Alison R. Panisson, and Rafael H. Bordini. Dial4jaca - A demonstration. In Frank Dignum, Juan Manuel Corchado, and Fernando de la Prieta, editors, *Advances in Practical Applications of Agents, Multi-Agent Systems, and Social Good. The PAAMS Collection - 19th International*

*Conference, PAAMS 2021, Salamanca, Spain, October 6-8, 2021, Proceedings*, volume 12946 of *Lecture Notes in Computer Science*, pages 346–350. Springer, 2021

- 337. Débora C. Engelmann, Juliana Damasio, Tabajara Krausburg, Olimar Teixeira Borges, Mateus da Silveira Colissi, Alison R. Panisson, and Rafael H. Bordini. Dial4jaca - A communication interface between multi-agent systems and chatbots. In Frank Dignum, Juan Manuel Corchado, and Fernando de la Prieta, editors, *Advances in Practical Applications of Agents, Multi-Agent Systems, and Social Good. The PAAMS Collection - 19th International Conference, PAAMS 2021, Salamanca, Spain, October 6-8, 2021, Proceedings*, volume 12946 of *Lecture Notes in Computer Science*, pages 77–88. Springer, 2021
- 336. Tabajara Krausburg, Jürgen Dix, and Rafael H. Bordini. Feasible coalition sequences. In Frank Dignum, Alessio Lomuscio, Ulle Endriss, and Ann Nowé, editors, *AAMAS '21: 20th International Conference on Autonomous Agents and Multiagent Systems, Virtual Event, United Kingdom, May 3-7, 2021*, pages 719–727. ACM, 2021
- 335. Tabajara Krausburg, Jürgen Dix, and Rafael H. Bordini. Computing sequences of coalition structures. In *IEEE Symposium Series on Computational Intelligence, SSCI 2021, Orlando, FL, USA, December 5-7, 2021*, pages 1–7. IEEE, 2021

## **Publications in 2020:**

(2 Journal, 3 Books, 5 Conf, 2 BSc/MSc)

### **Journal Articles (2)**

- 334. Dimitrios I. Diochnos, Jürgen Dix, and Guillermo Ricardo Simari. Foreword to special issue for ISAIM 2018. *Ann. Math. Artif. Intell.*, 88(7):687–689, 2020
- 333. Tobias Ahlbrecht, Jürgen Dix, Niklas Fiekas, and Tabajara Krausburg. The multi-agent programming contest: A résumé. In *The Multi-Agent Programming Contest 2019*, volume 12381 of *Lecture Notes in Computer Science*, pages 3–27. Springer, Cham, 2020

### **Books (2), Special Issues(1)**

- 332. Rafael C. Cardoso, Angelo Ferrando, Daniela Briola, Claudio Menghi, and Tobias Ahlbrecht, editors. *Proceedings of the First Workshop on Agents and Robots for reliable Engineered Autonomy, AREA@ECAI 2020, Virtual event, 4th September 2020*, volume 319 of *EPTCS*, 2020
- 331. Tobias Ahlbrecht, Jürgen Dix, Niklas Fiekas, and Tabajara Krausburg, editors. *The Multi-Agent Programming Contest 2019*, volume 12381 of *LNCS/LNAI*. Springer, Cham, 2020
- 330. Dimitrios Diochnos, Jürgen Dix, and Guillermo Simari, editors. *Selected Papers from ISAIM 2018: The Fifteenth International Symposium on Artificial Intelligence and Mathematics*, volume 88 of *Annals of Mathematics and Artificial Intelligence*. Springer, 2020

### **Workshop/Conference Papers (3)**

- 329. Tabajara Krausburg, Vinicius Chrisosthemos, Rafael H. Bordini, and Jürgen Dix. Disaster response simulation as a testbed for multi-agent systems. In Nick Bassiliades, Georgios Chalkiadakis, and Dave de Jonge, editors, *Multi-Agent Systems and Agreement Technologies - 17th European Conference, EUMAS 2020, and 7th International Conference, AT 2020, Thessaloniki, Greece, September 14-15, 2020, Revised Selected Papers*, volume

- 12520 of *Lecture Notes in Computer Science*, pages 67–81. Springer, 2020
328. Tobias Ahlbrecht, Jürgen Dix, Niklas Fiekas, and Tabajara Krausburg. Accept a challenge: The multi-agent programming contest - challenging tasks and how to deal with them. In Cristina Baroglio, Jomi Fred Hübner, and Michael Winikoff, editors, *Engineering Multi-Agent Systems - 8th International Workshop, EMAS 2020, Auckland, New Zealand, May 8-9, 2020, Revised Selected Papers*, volume 12589 of *Lecture Notes in Computer Science*, pages 129–143. Springer, 2020
327. Tabajara Krausburg, Vinicius Chrisosthemos, Rafael H. Bordini, and Jürgen Dix. Disaster response simulation. In Yves Demazeau, Tom Holvoet, Juan M. Corchado, and Stefania Costantini, editors, *Advances in Practical Applications of Agents, Multi-Agent Systems, and Trustworthiness. The PAAMS Collection - 18th International Conference, PAAMS 2020, L'Aquila, Italy, October 7-9, 2020, Proceedings*, volume 12092 of *Lecture Notes in Computer Science*, pages 434–438. Springer, 2020
326. Niklas Fiekas. Time in multi-agent systems. In Paulo Novais, Gianni Vercelli, Josep Lluís Larriba-Pey, Francisco Herrera, and Pablo Chamoso, editors, *Ambient Intelligence - Software and Applications - 11th International Symposium on Ambient Intelligence, ISAmI 2020, L'Aquila, Italy, October 7 - 9, 2020*, volume 1239 of *Advances in Intelligent Systems and Computing*, pages 243–246. Springer, 2020
325. Tabajara Krausburg. Hierarchical coalition formation in multi-agent systems. In Sara Rodríguez-González, Alfonso González-Briones, Arkadiusz Gola, George Katranas, Michela Ricca, Roussanka Loukanova, and Javier Prieto, editors, *Distributed Computing and Artificial Intelligence, Special Sessions, 17th International Conference, DCAI 2020, L'Aquila, Italy, 17-19 June 2020*, volume 1242 of *Advances in Intelligent Systems and Computing*, pages 210–214. Springer, 2020
- Ein Anwendungsszenario. Master's thesis, Institut für Informatik, March 2020. Master thesis
323. Paula Böhm. Wie legt man welche Termine fest, um sein Wohlbefinden zu verbessern? Entwicklung einer Kalender-App, December 2020. Bachelor thesis

## BSc/MSc theses (2)

324. Florian Heinecke. Ausgewählte Data-Mining Methoden zur Prozessoptimierung im Selektivlöten

## Publications in 2019:

(2 Journal, 1 Book, 1 Conf, 1 BSc thesis)

### **Journal Articles (2)**

- 322. Tobias Ahlbrecht, Jürgen Dix, and Niklas Fiekas. The Multi-Agent Programming Contest 2018 - A Third Time in the City. In *Multi-Agent Programming Contest*, pages 3–22. Springer, 2019
- 321. Jürgen Dix, Brian Logan, and Michael Winikoff. Engineering Reliable Multiagent Systems (Dagstuhl Seminar 19112). *Dagstuhl Reports*, 9(3):52–63, 2019

### **Books (1)**

- 320. Tobias Ahlbrecht, Jürgen Dix, and Niklas Fiekas, editors. *The Multi-Agent Programming Contest 2018 - Agents Teaming Up in an Urban Environment*, volume 11957 of *Lecture Notes in Computer Science*. Springer, 2019

### **Workshop/Conference Papers (1)**

- 319. Tobias Ahlbrecht and Michael Winikoff. Explaining aggregate behaviour in cognitive agent simulations using explanation. In Calvaresi et al. [150], pages 129–146

### **BSc thesis (1)**

- 318. Jan Schwede. Cache-effizientes Packen überlappender Hashtabellen, October 2019. Bachelor thesis

## Publications in 2018:

(3 Journal, 3 (1+2) Books, 8 BSc/MSc theses)

### **Journal Articles (3)**

- 317. Tobias Ahlbrecht, Jürgen Dix, and Niklas Fiekas. Multi-agent programming contest 2016. *IJAOSE*, 6(1):58–85, 2018
- 316. Tobias Ahlbrecht, Jürgen Dix, and Niklas Fiekas. Multi-agent programming contest 2017 - the twelfth edition of the MAPC. *Ann. Math. Artif. Intell.*, 84(1-2):1–16, 2018
- 315. Mehdi Dastani, Jürgen Dix, Harko Verhagen, and Serena Villata. Normative Multi-Agent Systems (Dagstuhl Seminar 18171). *Dagstuhl Reports*, 8(4):72–103, 2018

### **Book (1), Special Issue (2)**

- 314. Mirjana Ivanovic, Costin Badica, Jürgen Dix, Zoran Jovanovic, Michele Malgeri, and Milos Savic, editors. *Intelligent Distributed Computing XI - Proceedings of the 11th International Symposium on Intelligent Distributed Computing - IDC 2017, Belgrade, Serbia, October 11-13, 2017*, volume 737 of *Studies in Computational Intelligence*. Springer, 2018
- 313. Tobias Ahlbrecht, Jürgen Dix, and Niklas Fiekas, editors. *MAPC 2016 Agents in the City*, volume 6 of *Special Issue of International Journal of Agent-Oriented Software Engineering*. Inderscience Publishers, 2018
- 312. Tobias Ahlbrecht, Jürgen Dix, and Niklas Fiekas, editors. *Multi-Agent Programming Contest 2017*, volume 84 of *Annals of Math and AI*. Springer, 2018

### **BSc thesis (6), MSc thesis (2)**

- 311. Jasper Sprockhoff. Kriterien und Ansätze für die Entwicklung von Spielen eines Multi-Agenten Wettkampfs, November 2018. Bachelor thesis
- 310. Thomas Borgardt. Game AI Movement and Pathfinding for Battlecode 2018, October 2018. Bachelor thesis

- 309. Kyle Schwalbe. Künstliche Intelligenz in der Medizin, June 2018. Bachelor thesis
- 308. Sarah Diedrich. Modelling Software Developer Behaviour with BDI Agents, August 2018. Master thesis
- 307. Niklas Fiekas. Finding Hash Functions for Bitboard Based Move Generation, April 2018. Master thesis
- 306. Philipp Czerner. How realistic is a change coupling graph? Estimations with convolutional networks., March 2018. Bachelor thesis
- 305. Sanja Alcu. KI - Einsatzmöglichkeiten im E-Commerce, March 2018. Bachelor thesis
- 304. Hayyan Helal. An approach using neural networks on curves to determine the front of Arabic calligraphy art works, March 2018. Bachelor thesis

## **Publications in 2017:**

**(1 Journal, 3 Conf, 2 BSc/MSc/Diploma)**

### **Journal Articles (1)**

- 303. Natasha Alechina, Nils Bulling, Brian Logan, and Hoang Nga Nguyen. The virtues of idleness: A decidable fragment of resource agent logic. *Artif. Intell.*, 245:56–85, 2017

### **Workshop/Conference Papers (3)**

- 302. Tobias Ahlbrecht, Jürgen Dix, Niklas Fiekas, Jens Grabowski, Verena Herbold, Daniel Honsel, Stephan Waack, and Marlon Welter. Agent-based simulation for software development processes. In *Multi-Agent Systems and Agreement Technologies - 14th European Conference, EUMAS 2016, and 4th International Conference, AT 2016, Valencia, Spain, December 15-16, 2016, Revised Selected Papers*, volume 10207 of *Lecture Notes in Computer Science*, pages 333–340. Springer, 2017
- 301. Tobias Ahlbrecht, Jürgen Dix, and Niklas Fiekas. Scalable multi-agent simulation based on mapreduce. In *Multi-Agent Systems and Agreement Technologies - 14th European Conference, EUMAS 2016, and 4th International Conference, AT 2016, Valencia, Spain, December 15-16, 2016, Revised Selected Papers*, volume 10207 of *Lecture Notes in Computer Science*, pages 364–371. Springer, 2017
- 300. Daniel Honsel, Niklas Fiekas, Verena Herbold, Marlon Welter, Tobias Ahlbrecht, Stephan Waack, Jürgen Dix, and Jens Grabowski. Simulating software refactorings based on graph transformations. In *Simulation Science*, pages 161–175. Springer, 2017

### **BSc thesis (1), MSc thesis (1)**

- 299. Jonathan Pieper. Entwicklung eines BDI basierten Agententeams für den MAPC, September 2017. Bachelor thesis
- 298. Niklas Fiekas. A simulation platform for MAS, November 2017. Master thesis

## Publications in 2016:

(5 Journal, 2 Special Issues, 3  
BSc/MSc/Diploma, 2 TR)

### Journal Articles (5)

- 297. Tobias Ahlbrecht, Jürgen Dix, Niklas Fiekas, Michael Köster, Philipp Kraus, and Jörg P. Müller. An architecture for scalable simulation of systems of cognitive agents. *IJAOS*, 5(2/3):232–265, 2016
- 296. Jürgen Dix, Sven Ove Hansson, Gabriele Kern-Isbner, and Guillermo Ricardo Simari. Belief change and argumentation in multi-agent scenarios. *Ann. Math. Artif. Intell.*, 78(3-4):177–179, 2016
- 295. Nils Bulling and Wiebe van der Hoek. Special issue on logical aspects of multi-agent systems. *Studia Logica*, 104(4):593–595, 2016
- 294. Nils Bulling. Special issue on multi-agent systems. *Ann. Math. Artif. Intell.*, 78(1):1–2, 2016
- 293. Nils Bulling and Mehdi Dastani. Norm-based mechanism design. *Artif. Intell.*, 239:97–142, 2016

### Special Issues (2)

- 292. Fabiano Dalpiaz, Jürgen Dix, and Birna van Riemsdijk, editors. *Designing, Developing and Verifying Multi-Agent System*, volume 5 of *International Journal of Agent-Oriented Software Engineering*. InderScience Publishers, 2016
- 291. Jürgen Dix, Sven Ove Hansson, Gabriele Kern-Isbner, and Guillermo Ricardo Simari, editors. *Belief change and argumentation in multi-agent scenarios*, volume 78. Springer, 2016

### BSc theses (2), MSc thesis (1)

- 290. Sarah Diedrich. Agentenbasierte Parameteroptimierung eines Multi-Agent Programming Contest-Szenarios, September 2016. Bachelor thesis
- 289. Aaron Sillus. Ein Genetischer Algorithmus zur Komposition von Musik, June 2016. Bachelor thesis

- 288. Tobias Ahlbrecht. Modular modelling support for multiagent simulation. Master's thesis, Institut für Informatik, July 2016. Master thesis

### Technical report (2)

- 287. Tobias Ahlbrecht, Jürgen Dix, Niklas Fiekas, Jens Grabowski, Verena Herbold, Daniel Honsel, Stephan Waack, and Marlon Welter. Agent-based simulation for software development processes. Technical report, Technical Report IfI-16-02, TU Clausthal, 2016
- 286. Tobias Ahlbrecht, Jürgen Dix, and Niklas Fiekas. Scalable multi-agent simulation based on mapreduce. Technical report, Technical Report IfI-16-03, TU Clausthal, 2016

## Publications in 2015:

(3 Journal, 3 Books, 4 Conf, 1 Habil, 6  
BSc/MSc/Diploma)

### Journal Articles (3)

- 285. Nils Bulling and Hoang Nga Nguyen. Model checking resource bounded systems with shared resources via alternating Büchi pushdown systems. *CoRR*, abs/1508.02326, 2015
- 284. Nils Bulling and Matei Popovici. A game-theoretic approach to compute stable topologies in mobile ad hoc networks. *J. Log. Comput.*, 25(3):639–667, 2015
- 283. Christoph Knieke and Michaela Huhn. Semantic foundation and validation of live activity diagrams. *Nordic Journal of Computing*, 15(2):112–140, 2015

### Books (3)

- 282. Michaela Huhn, Jan Philipps, Matthias Riebisch, and Bernhard Schätz, editors. *Tagungsband des Dagstuhl-Workshops Modellbasierte Entwicklung eingebetteter Systeme (MBEES XI)*, volume 2015-01 of *fortiss Bericht*, 2015

281. Jörg P. Müller, Wolf Ketter, Gal A. Kaminka, Gerd Wagner, and Nils Bulling, editors. *Multiagent System Technologies - 13th German Conference, MATES 2015, Cottbus, Germany, September 28-30, 2015, Revised Selected Papers*, volume 9433 of *Lecture Notes in Computer Science*. Springer, 2015
280. Nils Bulling, editor. *Multi-Agent Systems - 12th European Conference, EUMAS 2014, Prague, Czech Republic, December 18-19, 2014, Revised Selected Papers*, volume 8953 of *Lecture Notes in Computer Science*. Springer, 2015

## Workshop/Conference Papers (4)

279. Nils Bulling and Hoang Nga Nguyen. Model checking resource bounded systems with shared resources via alternating Büchi pushdown systems. In Qingliang Chen, Paolo Torroni, Serena Villata, Jane Yung-jen Hsu, and Andrea Omicini, editors, *PRIMA 2015: Principles and Practice of Multi-Agent Systems - 18th International Conference, Bertinoro, Italy, October 26-30, 2015, Proceedings*, volume 9387 of *Lecture Notes in Computer Science*, pages 640–649. Springer, 2015
278. Natasha Alechina, Nils Bulling, Brian Logan, and Hoang Nga Nguyen. On the boundary of (un)decidability: Decidable model-checking for a fragment of resource agent logic. In Qiang Yang and Michael Wooldridge, editors, *Proceedings of the Twenty-Fourth International Joint Conference on Artificial Intelligence, IJCAI 2015, Buenos Aires, Argentina, July 25-31, 2015*, pages 1494–1501. AAAI Press, 2015
277. Bas Testerink, Nils Bulling, and Mehdi Dastani. A model for collaborative runtime verification. In Gerhard Weiss, Pinar Yolum, Rafael H. Bordini, and Edith Elkind, editors, *Proceedings of the 2015 International Conference on Autonomous Agents and Multiagent Systems, AAMAS 2015, Istanbul, Turkey, May 4-8, 2015*, pages 1781–1782. ACM, 2015
276. Natasha Alechina, Nils Bulling, Mehdi Dastani, and Brian Logan. Practical run-time norm enforcement with bounded lookahead. In Gerhard Weiss, Pinar Yolum, Rafael H. Bordini, and Edith

Elkind, editors, *Proceedings of the 2015 International Conference on Autonomous Agents and Multiagent Systems, AAMAS 2015, Istanbul, Turkey, May 4-8, 2015*, pages 443–451. ACM, 2015

## Habilitation thesis (1)

275. Nils Bulling. Formal methods for analysing, coordinating, and controlling decisions in multi-agent systems. <http://d-nb.info/1077842236>, 2015. Habilitation thesis

## Diploma theses (3), BSc thesis (1), MSc theses (2)

274. Marc Sebastian Lucksch. Modellgetriebene Entwicklung von textuellen Editoren für die Strukturmodellierung von Bahnsicherungsanlagen, April 2015
273. Timo Rienäcker. Weiterentwicklung eines Werkzeugs zur Verifikation von SCADE-Programmen mit SMT Model Checking, October 2015
272. J. Wang. Lernmaterialien zu Algorithmen und Datenstrukturen, 2015
271. Niklas Fiekas. Ein leichtgewichtiger AgentSpeak Interpreter für C++, October 2015. Bachelor thesis
270. Naghmeh Fannipour. Adaptation of Systems Theoretic Process Analysis (STPA) for SCADE-based designs. Master's thesis, Institut für Informatik, October 2015
269. Pierre Colin Kaptue Wafo. Graphisches Werkzeug für die Strukturmodellierung von Bahnsicherungsanlagen. Master's thesis, Institut für Informatik, March 2015

## Publications in 2014:

(9 Journal, 6 (3+1+2) Books, 6 Conf, 2 MSc, 1 TR)

### Journal Articles (9)

268. Michaela Huhn and Stefan Milius. Observations on formal safety analysis in practice. *Science of*

- Computer Programming*, 80, Part A(0):150 – 168, 2014. (Selected papers from FMICS’11)
267. Nils Bulling and Matei Popovici. A game-theoretic approach to compute stable topologies in mobile ad-hoc networks. *Journal of Logic and Computation*, May 2014
266. Nils Bulling. A Survey of Multi-Agent Decision Making. *KI*, 28(3):147–158, 2014
265. Nils Bulling. Editorial: Special Issue on Multi-Agent Decision Making. *KI*, 28(3):143–146, 2014
264. Nils Bulling and Wojciech Jamroga. Comparing variants of strategic ability: how uncertainty and memory influence general properties of games. *Journal of Autonomous Agents and Multi-Agent Systems*, 28(3):474–518, 2014
263. Thomas Ågotnes and Nils Bulling. Formal Methods for Coordinating Multi-Agent Systems (Dagstuhl Seminar 14332). *Dagstuhl Reports*, 4(8):21–44, 2014
262. Nils Bulling. Interview With Professor Sarit Kraus. *KI*, 28(3):215–221, 2014
261. Pietro Galliani. Transition semantics: the dynamics of dependence logic. *Synthese*, 191(6):1249–1276, 2014
260. Pietro Galliani. On strongly first-order dependencies. *CoRR*, abs/1403.3698, 2014
- Books (3), Special Issue (1), Chapters in books (2)**
259. Fabiano Dalpiaz, Jürgen Dix, and Birna van Riemsdijk, editors. *Engineering Multi-Agent Systems - Second International Workshop, EMAS 2014, Paris, France, May 5–7, 2014, Revised Selected Papers*, volume 8758 of *Lecture Notes in Computer Science*. Springer, 2014
258. Nils Bulling, Leendert W. N. van der Torre, Serena Villata, Wojtek Jamroga, and Wamberto Vasconcelos, editors. *Computational Logic in Multi-Agent Systems - 15th International Workshop, CLIMA XV, Prague, Czech Republic, August 18–19, 2014. Proceedings*, volume 8624 of *Lecture Notes in Computer Science*. Springer, 2014
257. Holger Giese, Michaela Huhn, Jan Philippss, and Bernhard Schätz, editors. *Tagungsband des Dagstuhl-Workshops Modellbasierte Entwicklung eingebetteter Systeme (MBEES X)*, volume 2014-01 of *fortiss Bericht*, 2014
256. Nils Bulling, editor. *Special Issue on Multi-Agent Decision Making*, volume 28 of *KI-Künstliche Intelligenz*. Springer, 2014
255. Koen Hindriks and Jürgen Dix. Goal: A multi-agent programming language applied to an exploration game. In Onn Shehory and Arnon Sturm, editors, *Agent-Oriented Software Engineering*, pages 235–258. Springer, 2014
254. Tobias Ahlbrecht, Jürgen Dix, and Federico Schlesinger. From Testing Agent Systems to a Scalable Simulation Platform. In Thomas Eiter, Hannes Strass, Mirosław Truszczynski, and Stefan Woltran, editors, *Advances in Knowledge Representation, Logic Programming, and Abstract Argumentation. Essays Dedicated to Gerhard Brewka on the Occasion of His 60th Birthday*, volume 9060 of *Lecture Notes in Computer Science*, pages 47–62. Springer, 2014
- Workshop/Conference Papers (6)**
253. Henning Basold, Henning Günther, Michaela Huhn, and Stefan Milius. An open alternative for SMT-based verification of SCADE models. In Frédéric Lang and Francesco Flammini, editors, *19th International Workshop on Formal Methods for Industrial Critical Systems (FMICS)*, volume 8718 of *LNCS*, pages 124–139, 2014
252. Sara Bessling and Michaela Huhn. Towards formal safety analysis in feature-oriented product line development. In *3rd International Symposium on Foundations of Health Information Engineering and Systems (FHIES 2013)*, volume 8315 of *LNCS*, pages 217–235. Springer, 2014
251. Nils Bulling. A Boolean game based modelling of socio-technical systems. In Joerg P. Mueller, Michael Weyrich, and Ana L. C. Bazzan, editors, *MATES 2014: Multiagent System Technologies XII*, LNAI, pages 7–25. Springer, September 2014

250. Nils Bulling, Wojciech Jamroga, and Matei Popovici. ATL\* with truly perfect recall: Expressivity and validities. In *Proceedings of the 21st European Conference on Artificial Intelligence (ECAI 2014)*, pages 177–182, Prague, Czech Republic, August 2014
249. Nils Bulling, Wojciech Jamroga, and Matei Popovici. Agents with truly perfect recall in alternating-time temporal logic (extended abstract). In *Proceedings of the 13th International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS 2014)*, pages 1561–1562, Paris, France, May 2014. ACM Press
248. Tobias Ahlbrecht, Jürgen Dix, Michael Köster, Philipp Kraus, and Jörg P. Müller. A scalable runtime platform for multiagent-based simulation. In Fabiano Dalpiaz, Jürgen Dix, and Birna van Riemsdijk, editors, *Engineering Multi-Agent Systems - Second International Workshop, EMAS 2014, Paris, France, May 5–7, 2014, Revised Selected Papers*, Lecture Notes in Computer Science, pages 81–102. Springer, 2014

## Technical report (1)

247. Tobias Ahlbrecht, Jürgen Dix, Michael Köster, Philipp Kraus, and Jörg P. Müller. A scalable runtime platform for multiagent-based simulation. Technical Report IfI-14-02, TU Clausthal, February 2014

## MSc theses (2)

246. Xiaoqian Gu. Modellierung und Verifikation einer Familie von sicherheitskritischen, medizinischen Geräten mit SCADE. Master's thesis, Institut für Informatik, September 2014
245. Sara Mahvi. Model-Based Safety Analysis of a Medical Device using SCADE Modeling Tool. Master's thesis, Institut für Informatik, October 2014

## Publications in 2013:

(6 Journal, 2 Chapters in books, 11 Conf, 1 BSc/MSc, 2 TR)

### Journal Articles (6)

244. Jürgen Dix, Sven Ove Hansson, Gabriele Kern-Isberner, and Guillermo Ricardo Simari. Belief change and argumentation in multi-agent scenarios (Dagstuhl seminar 13231). *Dagstuhl Reports*, 3(6):1–21, 2013
243. Pietro Galliani. The dynamification of modal dependence logic. *Journal of Logic, Language and Information*, pages 1–27, 2013
242. P. Galliani. Transition semantics: the dynamics of dependence logic. *Synthese*, pages 1–28, 2013
241. Pietro Galliani. General models and entailment semantics for independence logic. *Notre Dame Journal of Formal Logic*, 54(2):253–275, 2013
240. Pietro Galliani. Epistemic operators in dependence logic. *Studia Logica*, pages 1–31, 2013
239. Pietro Galliani and Allen L Mann. Lottery semantics: A compositional semantics for probabilistic first-order logic with imperfect information. *Studia Logica*, pages 1–30, 2013

### Chapters in books (2)

238. Rafael Bordini and Jürgen Dix. Chapter 13: Programming Multi-Agent Systems. In Gerhard Weiss, editor, *Multiagent systems*, pages 587–639. MIT-Press, 2013
237. Jürgen Dix and Michael Fisher. Chapter 14: Verifying Multi-Agent Systems. In Gerhard Weiss, editor, *Multiagent systems*, pages 641–693. MIT-Press, 2013

### Workshop/Conference Papers (11)

236. Nils Bulling and Valentin Goranko. How to be both rich and happy: Combining quantitative and qualitative strategic reasoning about multi-player games. In *Proceedings of the 1st International*

*Workshop on Strategic Reasoning*, Electronic Proceedings in Theoretical Computer Science, pages 33–41, Rome, Italy, March, 16-17 2013

235. Nils Bulling, Sujata Ghosh, and Rineke Verbrugge. Reaching your goals without spilling the beans: Boolean secrecy games. In *PRIMA 2013: Principles and Practice of Multi-Agent Systems*, pages 37–53, Dunedin, New Zealand, December 2013
234. Nils Bulling and Mehdi Dastani. Coalitional responsibility in strategic settings. In Joao Leite and Tran Cao Son, editors, *Computational Logic in Multi-Agent Systems - 14th International Workshop, CLIMA XIV*, Lecture Notes in Computer Science, pages 172–189, Corunna, Spain, September 16-18 2013. Springer
233. Michael Köster, Federico Schlesinger, and Jürgen Dix. The multi-agent programming contest 2012. In *Programming Multi-Agent Systems*, volume 7837 of *Lecture Notes in Computer Science*, pages 174–195. Springer Berlin Heidelberg, 2013
232. Tobias Ahlbrecht, Jürgen Dix, Michael Köster, and Federico Schlesinger. Multi-agent programming contest 2013. In Massimo Cossentino, Amal El Fallah-Seghrouchni, and Michael Winikoff, editors, *Engineering Multi-Agent Systems - First International Workshop, EMAS 2013, St. Paul, MN, USA, May 6-7, 2013, Revised Selected Papers*, volume 8245 of *Lecture Notes in Computer Science*, pages 292–318. Springer, 2013
231. Tobias Ahlbrecht, Christian Bender-Saebelkampf, Maiquel de Brito, Nicolai Christian Christensen, Jürgen Dix, Mariana Ramos Franco, Hendrik Heller, Andreas Viktor Hess, Axel Heßler, Jomi Fred Hübner, Andreas Schmidt Jensen, Jannick Boese Johnsen, Michael Köster, Chengqian Li, Lu Liu, Marcelo Menezes Morato, Philip Bratt Ørum, Federico Schlesinger, Tiago Luiz Schmitz, Jaime Simão Sichman, Kaio Siqueira de Souza, Daniela Maria Uez, Jørgen Villadsen, Sebastian Werner, Øyvind Grønland Woller, and Maicon Rafael Zatelli. Multi-agent programming contest 2013: The teams and the design of their systems. In Massimo Cossentino, Amal El Fallah-Seghrouchni, and Michael Winikoff, editors, *Engineering Multi-Agent Systems - First International Workshop, EMAS 2013, St. Paul, MN, USA, May 6-7, 2013, Revised Selected Papers*, volume 8245 of *Lecture Notes in Computer Science*, pages 366–390. Springer, 2013
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229. Pietro Galliani. Upwards closed dependencies in team semantics. In Gabriele Puppis and Tiziano Villa, editors, *Proceedings Fourth International Symposium on Games, Automata, Logics and Formal Verification*, volume 119 of *EPTCS*, pages 93–106, 2013
228. Pietro Galliani, Miika Hannula, and Juha Kontinen. Hierarchies in independence logic. In Simona Ronchi Della Rocca, editor, *Computer Science Logic 2013 (CSL 2013)*, volume 23 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 263–280, Dagstuhl, Germany, 2013. Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik
227. Pietro Galliani and Lauri Hella. Inclusion Logic and Fixed Point Logic. In Simona Ronchi Della Rocca, editor, *Computer Science Logic 2013 (CSL 2013)*, volume 23 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 281–295, Dagstuhl, Germany, 2013. Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik
226. Alexandru Asandei, Ciprian Dobre, and Matei Popovici. Social-based routing with congestion avoidance in opportunistic networks. In Jacek Cichoń, Maciej Gębala, and Marek Klonowski, editors, *Ad-hoc, Mobile, and Wireless Network*, volume 7960 of *Lecture Notes in Computer Science*, pages 13–25. Springer Berlin Heidelberg, 2013
- BSc thesis (1)**
225. Tobias Ahlbrecht. A Tool for Computing Stable Topologies in Mobile Ad-Hoc Networks, June 2013. Bachelor thesis
- Technical reports (2)**
224. Nils Bulling, Michael Köster, and Matei Popovici. A game theoretic approach for stable network

- topologies in opportunistic networks. Technical Report IfI-12-03, Clausthal University of Technology, December 2012
223. Michael Köster, Federico Schlesinger, and Jürgen Dix. The multi-agent programming contest 2012 edition - evaluation and team descriptions. Technical Report IfI-13-01, Clausthal University of Technology, December 2013
- Publications in 2012:**  
**(2 Journal, 1 Book, 1 Chapter in Book, 4 Conf, 1 PhD's, 2 Dipl/BSc, 2 TR)**
- Journal Articles (2)**
222. Jürgen Dix, Koen V. Hindriks, Brian Logan, and Wayne Wobcke. Engineering multi-agent systems (Dagstuhl seminar 12342). *Dagstuhl Reports*, 2(8):74–98, 2012
221. T. Behrens, M. Dastani, J. Dix, J. Hübner, M. Köster, P. Novák, and F. Schlesinger. The multi-agent programming contest. *AI Magazine*, 33(4):111–113, 2012
- Book (1), Chapters in books (1)**
220. Rem W. Collier, Jürgen Dix, and Peter Novák, editors. *Programming Multi-Agent Systems - 8th International Workshop, ProMAS 2010, Toronto, ON, Canada, May 11, 2010. Revised Selected Papers*, volume 6599 of *Lecture Notes in Computer Science*. Springer, 2012
219. Jürgen Dix, Wolfgang Faber, and V. S. Subrahmanian. Privacy preservation using multi-context systems and default logic. In *Correct Reasoning – Essays on Logic-Based AI in Honour of Vladimir Lifschitz*, volume 7265 of *Lecture Notes in Computer Science*, pages 195–210. Springer, 2012
- Workshop/Conference Papers (4)**
218. Nils Bulling, Michael Köster, and Matei Popovici. A game theoretic approach for optimal network topologies in opportunistic networks. In M. Fisher, L. van der Torre, M. Dastani, and G. Governatori, editors, *Computational Logic in Multi-Agent Systems - 13th International Workshop, CLIMA XIII, Montpellier, France, August 27-28, 2012. Proceedings*, volume 7486 of *Lecture Notes in Computer Science*, pages 128–145, Montpellier, France, 27–28 August 2012. Springer
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215. Tristan Behrens, Michael Köster, Federico Schlesinger, Jürgen Dix, and Jomi Hübner. The multi-agent programming contest 2011: A résumé. In Louise Dennis, Olivier Boissier, and Rafael Bordini, editors, *Programming Multi-Agent Systems*, volume 7217 of *Lecture Notes in Computer Science*, pages 155–172. Springer Berlin / Heidelberg, 2012
- Technical reports (2)**
214. Tristan Behrens, Jürgen Dix, Jomi Hübner, Michael Köster, and Federico Schlesinger. Multi-agent programming contest 2011 edition documentation. Technical Report IfI-12-01, Clausthal University of Technology, April 2012
213. Tristan Behrens, Jürgen Dix, Jomi Hübner, Michael Köster, and Federico Schlesinger. Multi-agent programming contest 2011 edition evaluation and team descriptions. Technical Report IfI-12-02, Clausthal University of Technology, April 2012

## PhD thesis (1)

212. Tristan Behrens. *Towards Building Blocks for Agent-Oriented Programming*. PhD thesis, Institut für Informatik, TU Clausthal, 2012

## Diploma thesis (1), BSc thesis (1)

211. Jens Dehnert. Game representations and their complexity, October 2012. Diploma thesis
210. Sascha Kattelmann. Die Ehrenfeucht-Vermutung und verwandte Probleme, 2012. Bachelorarbeit

## Publications in 2011:

(7 Journal, 2 Special Journal issues, 8 Conf )

### Journal Articles (7)

209. Tristan Behrens, Jürgen Dix, Jomi Hübner, and Michael Köster. Editorial. *Annals of Mathematics and Artificial Intelligence*, 61:257–260, 2011
208. Jürgen Dix, Wojciech Jamroga, and Dov Samet. Reasoning about Interaction: From Game Theory to Logic and Back (Dagstuhl Seminar 11101). *Dagstuhl Reports*, 1(3):1–18, 2011
207. Jürgen Dix and Michael Fisher. Where Logic and Agents meet. *Annals of Mathematics and Artificial Intelligence*, 61(1):15–28, 2011
206. Rafael H. Bordini, Mehdi Dastani, Jürgen Dix, and Amal El Fallah Seghrouchni. Preface. *Autonomous Agents and Multi-Agent Systems*, 23(2):155–157, 2011
205. Tristan Behrens, Koen Hindriks, and Jürgen Dix. Towards an environment interface standard for agent platforms. *Annals of Mathematics and Artificial Intelligence*, 61(4):261–295, 2011
204. Jürgen Dix and João Leite. Preface to the special issue on computational logics in multi-agent systems. *Annals of Mathematics and Artificial Intelligence*, 62(1-2):1–5, 2011
203. Tristan Behrens, Jürgen Dix, Jomi Hübner, and Michael Köster. Editorial. *Annals of Mathematics and Artificial Intelligence*, 61:257–260, 2011

## Special Issues (2)

202. Rafael Bordini, Mehdi Dastani, Jürgen Dix, and Amal El Fallah Seghrouchni, editors. *Special Issue on Multi-Agent Programming*, volume 23 of *Journal of Autonomous Agents and Multi-Agent Systems*. Springer, 2011
201. Jürgen Dix and João Leite, editors. *Special Issue: Selected Papers of CLIMA 2010*, volume 62 of *Annals of Mathematics and Artificial Intelligence*. Springer, 2011

## Workshop/Conference Papers (8)

200. Nils Bulling. Modellierung und Verifikation von Fähigkeiten rationaler Agenten (extended abstract). In Steffen Hölldobler, editor, *Ausgezeichnete Informatikdissertationen 2010*, volume 11 of *Lecture Notes in Informatics*, pages 61–70. Köllen Druck+Verlag GmbH, Bonn, 2011
199. Tristan Behrens, Rafael Bordini, Lars Braubach, Mehdi Dastani, Jürgen Dix, Koen Hindriks, Jomi Hübner, and Alexander Pokahr. An interface for agent-environment interaction. In Rem Collier, Jürgen Dix, and Peter Novák, editors, *Proceedings of 8th international Workshop on Programming Multi-Agent Systems, ProMAS 2010*, volume 6599 of *LNCS*, pages 170–185, Heidelberg, Germany, 2011. Springer Verlag
198. Wojciech Jamroga and Nils Bulling. Comparing variants of strategic ability. In *Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI)*, pages 252–257, Barcelona, Spain, July 2011
197. Nils Bulling and Wojciech Jamroga. Alternating epistemic mu-calculus. In *Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI)*, pages 109–114, Barcelona, Spain, July 2011
196. Nils Bulling and Mehdi Dastani. Verification and implementation of normative behaviours in multi-agent systems. In *Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI)*, pages 103–108, Barcelona, Spain, July 2011

195. Nils Bulling and Koen V. Hindriks. Taming the complexity of linear time BDI logics. In *Proceedings of the 10th International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS 2011)*, pages 275–282, Taipei, Taiwan, May 2011. ACM Press
194. Nils Bulling and Mehdi Dastani. Normative mechanism design (extended abstract). In *Proceedings of the 10th International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS 2011)*, pages 1187–1188, Taipei, Taiwan, May 2011. ACM Press
193. Michael Köster and Peter Lohmann. Abstraction for model checking modular interpreted systems over ATL. In *The 10th International Conference on Autonomous Agents and Multiagent Systems - Volume 3*, AAMAS ’11, pages 1129–1130, Richland, SC, 2011. International Foundation for Autonomous Agents and Multiagent Systems
188. Michael Köster, Tristan Behrens, Jürgen Dix, Jomi Hübner, Mehdi Dastani, and Peter Novák. Editorial. *Annals of Mathematics and Artificial Intelligence*, 59:275–275, 2010

### Books (3), Special Issues (3), Chapters in books (1)

187. Nick Bassiliades, Guido Governatori, Adrian Paschke, and Jürgen Dix, editors. *Special Issue on Rule Representation, Interchange, and Reasoning in Distributed, Heterogeneous Environments*, volume 22 of *IEEE Transactions of Knowledge and Data Engineering*. IEEE, 2010
186. Tristan Behrens, Mehdi Dastani, Jürgen Dix, Michael Köster, and Peter Novák, editors. *Special Issue about Multi-Agent-Contest I*, volume 59 of *Annals of Mathematics and Artificial Intelligence*. Springer, Netherlands, 2010
185. Jürgen Dix, Michael Fisher, and Peter Novák, editors. *Computational Logic and Multi-Agent Systems, Revised Selected and Invited Papers of CLIMA X*, volume 6214 of *Lecture Notes in Computer Science*. Springer, 2010
184. Jürgen Dix, João Leite, Guido Governatori, and Wojtek Jamroga, editors. *Computational Logic in Multi-Agent Systems, 11th International Workshop, CLIMA XI, Lisbon, Portugal, August 16–17, 2010. Proceedings*, volume 6245 of *Lecture Notes in Computer Science*. Springer, 2010
183. Jürgen Dix and Cees Witteveen, editors. *Multi-agent System Technologies, 8th German Conference, MATES 2010, Leipzig, Germany, September 27–29, 2010. Proceedings*, volume 6251 of *Lecture Notes in Computer Science*. Springer, 2010
182. Tristan Behrens, Mehdi Dastani, Jürgen Dix, Michael Köster, and Peter Novák, editors. *Special Issue about Multi-Agent-Contest I*, volume 59 of *Annals of Mathematics and Artificial Intelligence*. Springer, Netherlands, 2010
181. Nils Bulling, Jürgen Dix, and Wojciech Jamroga. Model checking logics of strategic ability: Complexity. In Mehdi Dastani, Koen V. Hindriks, and John-Jules Ch. Meyer, editors, *Specification and Verification of Multi-Agent Systems*, pages 125–158. Springer, 2010

## Workshop/Conference Papers (5)

180. Wojciech Jamroga and Nils Bulling. Comparing variants of strategic ability. In *Proceedings of EU-MAS 2010*, pages 21–36, Paris, France, December 2010
179. Federico Schlesinger, Marcelo Errecalde, and Guillermo Aguirre. An approach to integrate web services and argumentation into a BDI system. In *Proceedings of the 9th International Conference on Autonomous Agents and Multiagent Systems: volume 1 - Volume 1*, AAMAS '10, pages 1371–1372, Richland, SC, 2010. International Foundation for Autonomous Agents and Multiagent Systems
178. Nils Bulling and Berndt Farwer. On the (Un-)Decidability of Model-Checking Resource-Bounded Agents. In Helder Coelho and Michael Wooldridge, editors, *Proceedings of the 19th European Conference on Artificial Intelligence (ECAI 2010)*, pages 567–572, Porto, Portugal, August 16–20 2010
177. Nils Bulling and Berndt Farwer. Expressing properties of resource-bounded systems: The logics RBTL and RBTL\*. In Jürgen Dix, Michael Fisher, and Peter Novák, editors, *Post-Proceedings of CLIMA '09*, number 6214 in LNCS 6214, pages 22–45, Hamburg, Germany, September 2010
176. Nils Bulling and Wojciech Jamroga. Verifying agents with memory is harder than it seemed. In *Proceedings of AAMAS 2010*, pages 699–706, Toronto, Canada, May 2010. ACM Press
173. Nils Bulling. Model checking coalition logic on implicit models is delta3-complete. Technical Report IfI-10-02, Clausthal University of Technology, February 2010
172. Nils Bulling and Berndt Farwer. On the decidability of verifying resource-bounded agents. Technical Report IfI-10-05, Clausthal University of Technology, May 2010
171. Constanze Deiters, Michael Köster, Sandra Lange, Sascha Lützel, Bassam Mokbel, Christopher Mumme, and Dirk Niebuhr. Demsy - a scenario for an integrated demonstrator in a smartcity. Technical Report 2010/01, NTH Focused Research School for IT Ecosystems, Clausthal University of Technology, May 2010
170. Jürgen Dix and Michael Fisher. Where logic and agents meet. Technical Report IfI-10-08, Clausthal University of Technology, December 2010
169. Michael Köster and Peter Lohmann. Abstraction for model checking modular interpreted systems over ATL. Technical Report IfI-10-13, Clausthal University of Technology, October 2010
168. Tristan Behrens, Mehdi Dastani, Jürgen Dix, Michael Köster, and Peter Novák. The multi-agent programming contest from 2005–2010: From gold collecting to herding cows. Technical Report IfI-10-14, Clausthal University of Technology, December 2010

## Publications in 2009:

- (7 Journal, 1 Book, 2 Chapters in books, 17 Conf, 1 Habil, 2 PhD's, 5 Dipl, 7 TR)

### Journal Articles (7)

167. Nils Bulling and Wojciech Jamroga. What agents can probably enforce. *Fundamenta Informaticae*, 93:81–96, 2009
166. Nils Bulling, Wojciech Jamroga, and Jürgen Dix. Reasoning about temporal properties of rational play. *Annals of Mathematics and Artificial Intelligence*, 53(1-4):51–114, 2008
174. Tristan M. Behrens, Koen Hindriks, Jomi Hübner, and Mehdi Dastani. Putting apl platforms to the test: Agent similarity and execution performance. Technical Report IfI-10-09, Clausthal University of Technology, December 2010

165. Jürgen Dix, Simon Parsons, Henry Prakken, and Guillermo Simari. Dagstuhl manifesto. *Informatik Spektrum*, 32(1):70–81, 2009
164. Jürgen Dix, Tristan Behrens, Michael Köster, and Peter Novák. Agenten als Goldgräber und Cowboys. *KI - Zeitschrift Künstliche Intelligenz*, 23(2/09):50–53, 2009
163. O. R. Vincent, O. Folorunso, and A. D. Akinde. On consolidation model in e- bill presentment and payment. *Information Management and Computer Security*, 17(3):234–247, 2009
162. O. R. Vincent, O. Folorunso, and A. D. Akinde. An agent-based advert placement system for broadcasting stations. *Issues in Informing Science and Information Technology*, 6:395–404, 2009
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156. N. Bulling and B. Farwer. Expressing properties of resource-bounded systems: The logics RBTL and RBTL\*. In J. Dix et al., editor, *Pre-Proceedings of CLIMA '09*, pages 2–19, Hamburg, Germany, September 2009
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154. T. Behrens and B. Farwer. An infrastructure of hierarchy and processes for multiple agents in games AI. In Berndt Farwer, editor, *Pre-Proceedings of LAM '09*, Durham, United Kingdom, August 2009
153. Nils Bulling and Wojciech Jamroga. Rational play and rational beliefs under uncertainty. In *Proceedings of AAMAS'09*, pages 257–264, Budapest, Hungary, May 2009. ACM Press
152. N. Bulling, J. Dix, and C. Chesñevar. An argumentative approach for modelling coalitions using ATL. In I. Rahwan and P. Moraitsis, editors, *Proc. of the 5rd. Intl. Workshop on Argumentation and Multiagent Systems ArgMAS 2008 (Selected Contributions and Invited Papers)*, Lecture Notes, pages 190–211, Estoril, Portugal, May 2009. Springer

## Books (1), Chapters in books (2)

160. Rafael H. Bordini, Mehdi Dastani, Jürgen Dix, and Amal El Fallah-Seghrouchni, editors. *Multi-Agent Programming: Languages, Tools and Applications*. Springer, Berlin, 2009
159. Alejandro Garcia, Jürgen Dix, and Guillermo Simari. Argument-based logic programming. In Iyad Rahwan and Guillermo Simari, editors, *Argumentation in Artificial Intelligence*, pages 153–171. Springer, Berlin, 2009
158. Michael Köster, Peter Novák, David Mainzer, and Bernd Fuhrmann. Two Case Studies for Jazzyk BSM. In Frank Dignum, Jeff Bradshaw, Barry Silverman, and Willem van Doesburg, editors, *Agents for Games and Simulations*, volume 5920 of *Lecture Notes in Computer Science*, pages 33–47. Springer Berlin / Heidelberg, 2009

## Workshop/Conference Papers (17)

157. Nils Bulling and Wojciech Jamroga. Model checking ATL<sup>+</sup> is harder than it seemed. In *Proceedings of the 7th European Workshop on Multi-Agent Systems EUMAS'09*, pages 43–57, Ayia Napa, Cyprus, December 2009
148. Tristan Behrens, Randolph Schärfig, and Tim Winkler. Multi-agent navigation using path-based vector fields. In Lars Braubach, Wiebe van der Hoek, Paolo Petta, and Alexander Pokahr, editors, *Multi-agent System Technologies (MATES)*, volume 5774

- of *Lecture Notes in Computer Science*, pages 4–15. Springer, 2009
147. Nils Bulling and Wojciech Jamroga. Model checking ATL<sup>+</sup> is harder than it seemed. In *Proceedings of the 7th European Workshop on Multi-Agent Systems EUMAS'09*, pages 43–57, Ayia Napa, Cyprus, December 2009
146. Wojciech Jamroga. Easy yet hard: Model checking strategies of agents. In *Computational Logic in Multi-Agent Systems: Proceedings of CLIMA IX*, volume 5405 of *LNCS*, pages 1–12, 2009
145. Inanç Seylan and Wojciech Jamroga. Description logic for coalitions. In *Proceedings of AAMAS'09*, pages 425–432, 2009
144. Peter Novák and Wojciech Jamroga. Code patterns for agent-oriented programming. In *8th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS 2009)*, pages 105–112. IFAAMAS, 2009
143. Tristan Behrens, Mehdi Dastani, Jürgen Dix, and Peter Novák. Agent contest competition: 4th edition. In Koen V. Hindriks, Alexander Pokahr, and Sebastian Sardiña, editors, *Programming Multi-Agent Systems, 6th International Workshop (ProMAS 2008)*, volume 5442 of *Lecture Notes in Computer Science*, pages 211–222. Springer, 2009
142. Tristan Behrens. Agent-oriented control in real-time computer games. In *Pre-Proceedings of ProMAS*, pages 133–147, 2009
141. O. R. Vincent and O. Folorunso. A descriptive algorithm for sobel image edge detection. In *Proceedings of the Information Science and Information Technology Education Joint Conference*, pages 97–107, Macon, Georgia, USA, 2009
- ## Habilitation thesis (1)
140. Wojciech Jamroga. Modeling, verification and strategic reasoning in multi-agent systems. <http://1hclz.gbv.de/DB=1.2/XMLPRS=N/PPN?PPN=631380906>, 2009. Habilitation thesis
- ## PhD theses (2)
139. Juan C. Guadarrama. *On Updates of Epistemic States*. PhD thesis, Institut für Informatik, TU Clausthal, 2009
138. Peter Novák. *Behavioural State Machines - Agent Programming and Engineering*. PhD thesis, Institut für Informatik, TU Clausthal, 2009
- ## Diploma theses (5)
137. Markus Gogolin. Optimierte SLPN-LTL-Modelchecker, February 2009. Diploma thesis
136. Jan-Michael Brummer. Transformation von Promela nach SLPN, September 2009. Diploma thesis
135. Slawomir Deren. Inter Agent Kommunikationsmodul für Jazzyk, August 2009. Diploma thesis
134. Bernd Fuhrmann. Implementierung eines URBI- und Rubymoduls für Jazzyk zur Entwicklung von Robotern, July 2009. Diploma thesis
133. Sebastian Magnus. Intelligent city - an ambient system for personalized information- and transactionservices, June 2009. Diploma thesis
- ## Technical reports (7)
132. Nils Bulling and Wojciech Jamroga. Model checking ATL<sup>+</sup> is harder than it seemed. Technical Report IfI-09-13, Clausthal University of Technology, November 2009
131. J. C. Acosta Guadarrama. Maintaining sequences of knowledge bases in ASP. Technical Report IfI-09-11, Clausthal University of Technology, October 2009
130. Tristan M. Behrens, Jürgen Dix, and Koen V. Hindriks. The environment interface standard for agent-oriented programming platform integration guide and interface implementation guide. Technical Report IfI-09-10, Clausthal University of Technology, December 2009
129. Tristan M. Behrens, Jürgen Dix, and Koen V. Hindriks. Towards an environment interface standard for agent-oriented programming. Technical

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128. Jürgen Dix, Michael Fisher, and Peter Novák (eds.). Proceedings of the 10th international workshop on computational logic in multi-agent systems 2009. Technical Report IfI-09-08, Clausthal University of Technology, September 2009
127. Nils Bulling and Wojciech Jamroga. What agents can probably enforce. Technical Report IfI-09-04, Clausthal University of Technology, April 2009
126. Nils Bulling and Koen V. Hindriks. Communicating rational agents: Semantics and verification. Technical Report IfI-09-02, Clausthal University of Technology, March 2009
- Publications in 2008:**  
**(2 Journal, 1 Book, 15 Conf, 3 Dipl, 6 TR)**
- Journal articles (2)**
125. Wojciech Jamroga and Jürgen Dix. Model checking abilities of agents: A closer look. *Theory of Computing Systems*, 42(3):366–410, 2008
124. Tristan Behrens and Jürgen Dix. Model checking multiagent systems with logic based Petri nets. *Annals of Mathematics and Artificial Intelligence*, 51(1-2):81–121, 2008
- Book (1)**
123. Jürgen Dix. *Biennial Report 2006/2007 of the Department of Informatics at Clausthal University of Technology*. Papierflieger Verlag GmbH, April 2008
- Workshop/Conference Papers (15)**
122. Mehdi Dastani, Jürgen Dix, and Peter Novák. Agent contest competition - 4th edition. In *Proceedings of Sixth International Workshop on Programming Multi-Agent Systems, ProMAS'08*, volume 5442 of *LNAI*. Springer Verlag, 2008
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107. David Mainzer. Implementierung eines autonomen Agenten in einer simulierten 3D-Umgebung: Interaktion mit der Umwelt, August 2008. Diplomarbeit
106. Michael Köster. Implementierung eines autonomen Agenten in einer Simulierten 3D Umgebung: Wissensrepräsentation, March 2008. Diploma thesis

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104. Thomas Ågotnes, Valentin Goranko, , and Wojciech Jamroga. Strategic commitment and release in logics for multi-agent systems (extended abstract). Technical Report IfI-08-01, Clausthal University of Technology, May 2008
103. Wojciech Jamroga, Thomas Ågotnes, and Wiebe van der Hoek. A simpler semantics for abilities under uncertainty. Technical Report IfI-08-02, Clausthal University of Technology, May 2008
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(2 Journal, 1 Book, 2 Special Journal issues, 10 Conf, 2 Dipl, 8 TR)

### Journal Articles (2)

98. Jürgen Dix and Stephen J. Hegner. Preface. *Annals of Mathematics and Artificial Intelligence*, 50(1–2):1–3, 2007

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- Book (1), Special Journal Issues (2)**
96. Rafael H. Bordini, Mehdi Dastani, Jürgen Dix, and A. El Fallah Seghrouchni, editors. *Programming Multi-Agent Systems, Fourth International Workshop, ProMAS 2006, Revised and Invited Papers*, volume 4411 of *Lecture Notes in Computer Science*, Hakodate, Japan, 2007. Springer
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- Workshop/Conference Papers (10)**
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87. Nils Bulling and Wojciech Jamroga. Agents, beliefs, and plausible behavior in a temporal setting. In *Proceedings of AAMAS'07*, pages 570–577, Honolulu, Hawaii, USA, 16–18 May 2007. ACM Press
86. Wojciech Jamroga and Nils Bulling. A general framework for reasoning about rational agents. In *Proceedings of AAMAS'07*, pages 592–594, Honolulu, Hawaii, USA, 16–18 May 2007. ACM Press. Short paper
85. Peter Novák and Jürgen Dix. Adding structure to agent programming languages. In M. Dastani, A. Ricci, A. El Fallah Seghrouchni, and M. Winikoff, editors, *Pre-Proceedings of the Fifth International Workshop on Programming Multi-Agent Systems*, pages 104–118, Honolulu, Hawaii, USA, 15 May 2007. ACM Press
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- Diploma theses (2)**
83. Xavier Queralt Mateu. Model checking of rational behavior of agents, July 2007. Diplomarbeit

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### Journal articles (2)

73. M. A. Bednarczyk, Wojciech Jamroga, and

- W. Pawłowski. Expressing and verifying temporal and structural properties of mobile agents. *Fundamenta Informaticae*, 72:51–63, January 2006

72. J. Dix, S. Kraus, and V. S. Subrahmanian. Heterogenous temporal probabilistic agents. *ACM Transactions of Computational Logic*, 7(1):151–198, 2006

## Books (5), Special Journal Issues (2)

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## Workshop/Conference Papers (5)

64. J. C. Acosta Guadarrama, J. Dix, and M. Osoorio. Update sequences in generalised answer set programming based on structural properties. In Patrick Kellenberger, editor, *Special Session of the 5th International MICAI Conference*, pages 32–41, Mexico City, Mexico, 2006. IEEE Computer Society
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59. Sabine Bostelmann. *Computing with Activities*. PhD thesis, Institut für Informatik, TU Clausthal, 2006
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56. Nils Bulling. *Modal logics for games, time and beliefs*, March 2006. Diploma thesis
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42. Jürgen Dix and Yingqian Zhang. IMPACT: A multi-agent framework with declarative semantics. In R. Bordini, M. Dastani, J. Dix, and A. El Fallah Seghrouchni, editors, *Programming Multi Agent Systems: Languages, Platforms and Applications*, volume 15, pages 69–94. Springer, Berlin, 2005

### **Workshop/Conference Papers (12)**

41. Andreas Brüning, Stefan Geisler, Odej Kao, and Martin Hoefer. QoS resource management for cluster-based image retrieval systems. In Hamid R. Arabnia, editor, *Proceedings of the International Conference on Parallel and Distributed Processing*

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  31. Y. Zhang. Towards fault tolerance for multiagent systems. In Frank Dignum, Virginia Dignum, Sven Koenig, Sarit Kraus, Munindar P. Singh, and Michael Wooldridge, editors, *4th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS 2005)*, pages 1387–1387, Utrecht, The Netherlands, 25–29 July 2005. ACM
  30. Y. Zhang, E. Manister, S. Kraus, and V. S. Subrahmanian. Approximation results for probabilistic survivability. In *Proc. of the Second IEEE Symposium on Multi-Agent Security and Survivability (MAS&S 2005)*, pages 1–10, Philadelphia, USA, 30–31 August 2005. IEEE Computer Society

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29. Frank Stamm. *Statische Analyse von Java-grammen*. PhD thesis, Institut für Informatik, TU Clausthal, 2005
28. Yingqian Zhang. *Making multiagent systems more reliable*. PhD thesis, The University of Manchester, November 2005

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27. Thomas Görz. Modellbasierte Diagnose des Zündsystems im Ottomotor zur Herleitung von Fehlersuchanleitungen in einer KFZ-Werkstatt, October 2005. Diploma thesis

26. Andrzej Kononowicz. Agenten im E-Learning, July 2005. Diplomarbeit

## Technical reports (9)

25. Marek A. Bednarczyk, Wojciech Jamroga, and Wiesław Pawłowski. Expressing and verifying temporal and structural properties of mobile agents. Technical Report IfI-05-09, Clausthal University of Technology, September 2005
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21. Jürgen Dix and Yingqian Zhang. Impact: A multi-agent framework with declarative semantics. Technical Report IfI-05-07, Clausthal University of Technology, April 2005
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19. Wojciech Jamroga, Wiebe van der Hoek, and Michael Wooldridge. Intentions and strategies in game-like scenarios. Technical Report IfI-05-08, Clausthal University of Technology, July 2005
18. Wojtek Jamroga and Thomas Ågotnes. Constructive knowledge: What agents can achieve under incomplete information. Technical Report IfI-05-10, Clausthal University of Technology, October 2005
17. Peter Novák. Stable model semantics algorithm - approach based on relation of blocking between sets of defaults. Technical Report IfI-05-04, Clausthal University of Technology, February 2005

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14. Valentin Goranko and Wojciech Jamroga. Comparing semantics of logics for multi-agent systems. *Synthese*, 139(2):241–280, 2004
13. Wojciech Jamroga and Wiebe van der Hoek. Agents that know how to play. *Fundamenta Informaticae*, 63(2–3):185–219, 2004

### **Books (3), Special Journal Issues (2)**

12. J. Dix, J. Leite, and K. Satoh, editors. *Special Issue on Computational Logic and Multi Agency*, volume 42 of *Annals of Mathematics and Artificial Intelligence*. Springer, Netherlands, 2004.
11. Jürgen Dix, Michael Fisher, Hector J. Levesque, and Leon Sterling, editors. *Special Issue on Logic-Based Agent Programming*, volume 41 of *Annals of Mathematics and Artificial Intelligence*. Springer, Netherlands, 2004.
10. M. Dastani, J. Dix, and A. El Fallah Seghrouchni, editors. *Programming Multi Agent Systems (ProMAS '03)*, volume 3067 of *Lecture Notes in Artificial Intelligence*, Berlin, 2004. Springer.
9. J. Dix and J. Leite, editors. *Pre-Proceedings of the 4th international workshop on Computational Logic in Multi-Agent Systems (CLIMA IV)*, volume 1, Clausthal-Zellerfeld, Germany, 2004. Paperflieger.
8. J. Dix and J. Leite, editors. *Logic and Multi-Agent Systems, Post Conference Proceedings of the fourth international workshop on Computational Logic in Multi-Agent Systems (CLIMA IV)*, volume 3259 of *Lecture Notes in Artificial Intelligence*, Berlin, 2004. Springer.

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4. Wojciech Jamroga. Strategic planning through model checking of ATL formulae. In Leszek Rutkowski, Jörg Siekmann, Ryszard Tadeusiewicz, and Lotfi A. Zadeh, editors, *Artificial Intelligence and Soft Computing – ICAISC 2004*, volume 3070 of *Lecture Notes in Computer Science*, pages 879–884. Springer, 2004

### **PhD thesis (1)**

3. Oscar Antonio Zárate-Aguila. *Stochastic Learning of Textures*. PhD thesis, Institut für Informatik, TU Clausthal, 2004

### **Diploma theses (2)**

2. Stefan Schimanski. Verifikation von Schleifen in Java-Programmen, June 2004. Diploma thesis

1. Jens Stegemann. Statische Analyse von Java-Programmen unter Verwendung der JML, September 2004. Diploma thesis