



Curriculum Vitae

Bernhard Nebel

17. September 2021

1 Education

- June 1989 Doctoral degree (*Dr. rer. nat.*) received from the University of Saarland
- July 1980 First degree in Computer Science (*Diplom-Informatiker*) received from the University of Hamburg (1975-1980)

2 Employment

- 4/1996–present Full Professor, Artificial Intelligence/Computer Science, Albert-Ludwigs-Universität, Freiburg
- 10/1993–3/1996 Associate Professor, Artificial Intelligence/Computer Science, University of Ulm
- 12/1989–9/1993 Senior Researcher, German Research Center for Artificial Intelligence (DFKI), Saarbrücken
- 7/1988–11/1989 Guest Researcher, IBM Scientific Center, Stuttgart
- 11/1985–6/1988 Researcher, Technical University of Berlin
- 8/1985–11/1985 Guest Researcher, Information Science Institute/USC, Marina del Rey, CA
- 1/1985–8/1985 Researcher, Technical University of Berlin
- 2/1982–12/1984 Researcher, University of Hamburg
- 10/1980–1/1982 Civil Service, Universitäts-Krankenhaus Hamburg-Eppendorf
- 9/1980 Researcher, University of Hamburg

3 Prizes, Awards, and Honors

- August 2021 Co-author of a paper receiving the *Best Student Paper Runner-Up Award at ICAPS 2021* (see publication 74)
- May 2019 Named as one of the *formative researchers in AI in Germany* by *Gesellschaft für Informatik*
- October 2015 Elected as Senator of *German Academy of Science Leopoldina*

November 2014	<i>Outstanding Demo Award at ICMI 2014</i>
March 2012	<i>Finalist for the EURON Technology Transfer Award, for the development of a mapping module for all-terrain robots used by first responders in critical situations</i>
September 2011	Elected as a member of <i>Academia Europaea</i>
August 2010	Elected as <i>AAAI Fellow</i> for significant contributions to knowledge representation and reasoning, planning, robotics, and services to the international AI community
October 2009	Elected as a member of the <i>German Academy of Science Leopoldina</i>
September 2008	<i>Honorable mention for Influential Paper</i> published in 1997 at <i>ICAPS 2008</i> (see publication 173)
June 2006	The robot team <i>RescueRobots Freiburg</i> receives the title <i>Best in class autonomy</i> at the <i>Robocup-Rescue</i> competition in the <i>real robot league</i>
August 2005	The robot team <i>RescueRobots Freiburg</i> receives the title <i>Best in class autonomy</i> at the <i>Robocup-Rescue</i> competition in the <i>real robot league</i>
Juli 2005	<i>IJCAI/JAIR Best Paper Award</i> for the best <i>JAIR</i> paper in the previous five years (see publication 43)
February 2005	<i>EURON Technology Transfer Award</i> for the development of an autonomous soccer table
July 2004	The team <i>Rescue Freiburg</i> becomes world champion in the <i>RoboCup-Rescue</i> competition in the <i>simulation league</i>
June 2004	The planning system <i>FDD</i> , which has been developed in my research group, is the fastest system in the class of non-optimizing, propositional planning systems at the <i>International Planning Competition 2004</i>
August 2001	<i>CS Freiburg</i> – the robotic soccer team developed in my research group – becomes <i>RoboCup 2001</i> world champion in the <i>F2000</i> league the third time
August 2001	Elected as <i>ECCAI Fellow</i> for having made significant, sustained contributions to the field of Artificial Intelligence

September 2000	<i>CS Freiburg</i> becomes RoboCup 2000 world champion in the F2000 league
April 2000	<i>FF</i> – an action planning system developed in my research group – is mentioned as the “Group A distinguished performance Planning System” at the <i>Artificial Intelligence Planning and Scheduling</i> (AIPS-2000) conference.
September 1999	<i>Springer Award</i> for the best paper at the German AI conference (KI-99) conference (see publication 166)
August 1999	<i>CS Freiburg</i> is ranked 3rd at RoboCup’99 in the F2000 league
July 1998	<i>CS Freiburg</i> is world champion at RoboCup’98 in the F2000 league
June 1998	<i>IPP</i> – a planning system developed in my research group – wins the planning system competition in the ADL class at the <i>Artificial Intelligence Planning Systems</i> (AIPS-98) conference
1995	<i>WIP</i> – a system which I co-developed in 1989–1993 at DFKI – wins the European innovation award ITEA

4 Teaching

4.1 Courses

- Introduction to Programming (60 hrs., undergraduate course)
- General Computer Science (30 hrs., undergraduate course)
- Theoretical Computer Science (60 hrs., undergraduate course)
- Algorithms and Data Structures (60 hrs., undergraduate course)
- Foundations of Artificial Intelligence (40 hrs., graduate course)
- AI Planning (40 hrs., graduate course)
- Principles of Knowledge Representation (40 hrs., graduate course)
- Game Theory (40 hrs., graduate course)
- Dynamic Epistemic Logic (40 hrs., graduate course)
- Multi-Agent-Systems (40 hrs., graduate course)

- Reasoning and Computational Complexity (30 hrs., graduate course)
- Temporal Representation and Temporal Reasoning (30 hrs., graduate course)
- Practical classes on Robotics, Prolog and LISP
- Seminars on different research topics

4.2 Ph.D. Thesis Supervision

- Thorsten Engesser, “Epistemic Planning towards Implicit Coordination of Multiple Agents with Distributed Knowledge,” July 2021.
- Tim Schulte, “Advanced Search Techniques for Privacy-preserving Planning,” July 2021.
- Benedict Wright, “Workflow generation with planning,” July 2019.
- Andreas Hertle, “Search Based Planning for Autonomous Robots,” April 2019.
- Johannes Aldinger, “Relaxation Heuristics for Numeric Planning,” January 2019.
- Florian Geißer, “On planning with state-dependent action costs,” January 2019.
- Yusra Alkhazraji, “Analysis of partial order reduction techniques for automated planning,” June 2018.
- Dali Sun, “Adaptive Task Allocation, Localization and Motion Planning for the Multi-Robot System,” September 2017.
- Thomas Keller, “Anytime Optimal MDP Planning with Trial-based Heuristic Tree Search,” July 2015 (**ICAPS Outstanding Dissertation Award 2016**).
- Matthias Westphal, “Qualitative Constraint-based Reasoning: Methods and Applications,” July 2015.
- Christian Dornhege, “Task Planning for High-Level Robot Control,” May 2015.
- Johannes Löhr, “Planning in Hybrid Domains: Domain Predictive Control,” November 2014.
- Gabriele Röger, “Planning Techniques and the Action Language Golog,” June 2014 (**ICAPS Outstanding Dissertation Award 2015**).
- Jens Witkowski: “Robust Peer Prediction Mechanisms,” April 2014.

- Patrick Eyerich: “Beyond Classical Planning: Temporal and Probabilistic Extensions,” October 2013.
- Robert Mattmüller, “Informed Progression Search for Fully Observable Nondeterministic Planning,” January 2013
- Dapeng Zhang: “Switching Attention Learning”, October 2011.
- Mehmet Giritli: “First-Order and Modal Logics for Spatial Reasoning,” September 2011.
- Sebastian Kupferschmidt: “Directed Model Checking for Timed Automata,” December 2009.
- Alexander Kleiner: „Kartierung und Erkundung in Katastrophengebieten durch Mensch und Roboter“, February 2008.
- Marco Ragni: „Räumliche Repräsentation, Komplexität und Deduktion: Eine kognitive Komplexitätstheorie“, January 2008.
- Malte Helmert: “Solving Planning Tasks in Theory and Practice,” June 2006 (**ICAPS Outstanding Dissertation Award 2007 Honorable Mention** and **IJCAI Computer & Thought Award 2011**).
- Thilo Weigel: „Roboter-Fußball: Perzeption, Deliberation und Aktion autonomer Systeme in dynamischen Umgebungen“, November 2005.
- Markus Jäger: „Kooperierende Roboter: Gemeinsame Erledigung einer Reinigungsaufgabe“, August 2002.
- Jörg Hoffmann: “Utilizing Problem Structure in Planning: A Local Search Approach,” July 2002 (**ECCAI Dissertation Award 2003**).
- Christoph Dornheim: „Einbettung planarer Graphen unter topologischen Constraints: Algorithmen und Komplexität“, June 2002.
- Jochen Renz: “Qualitative Spatial Reasoning with Topological Information,” November 2000.
- Jens-Steffen Gutmann: „Robuste Navigation autonomer mobiler Systeme“, 2000 (**EURON Dissertation Award in 2001**)
- Hanno Walischeski: „Lernen und Interpretieren strukturierter Dokumente – ein qualitativer Ansatz“, 1999
- Stefan Jäger: „Rekonstruktion von Schriftzügen aus handgeschriebenen Wörtern“, July 1998 (**AKI Award 1999 for outstanding German Ph.D thesis in Artificial Intelligence**).

5 Other Professional Activities

5.1 Project Acquisition

- PI in the DFG project *EBSDAC*, 2019-2022 [approx. 200 KEuro]
- Principal investigator in the *BrainLinks-BrainTools* DFG excellence cluster, 2012–2019 [approx. 540 KEuro]
- Member of the cooperative BMBF project *KARIS Pro*, 2013–2016 [approx. 380 KEuro]
- Participation in one project of DFG research group *HYBRIS* 2012–2018 [approx. 400 KEuro]
- Participation in two DFG projects as part of the research center *AVACS*, 2012–2015 [approx. 540 KEuro]
- Participation in two DFG projects as part of the research center on *Spatial Cognition*, 2011–2014 [approx. 600 KEuro]
- DLR project *Kontiplan* together with Astrium (2011–2014) [approx 670 KEuro]
- Member of the *integrated project CogX* funded by the EU (2008–2012) [approx. 600 KEuro]
- Participation in two DFG projects as part of the research center *AVACS*, 2008–2011 [approx. 400 KEuro]
- Participation in two DFG projects as part of the research center on *Spatial Cognition*, 2007–2010 [approx. 600 KEuro]
- Member of the cooperative BMBF project *DESIRE* (2005–2008) [approx. 240 KEuro]
- DFG project *PLATAS* (2005–2008) [approx. 120KEuro]
- Member of the *integrated project COSY* funded by the EU (2004–2006) [approx. 300 KEuro]
- Participation in three DFG projects as part of the research center *AVACS*, 2004–2007 [approx. 600 KEuro]
- Participation in two DFG projects as part of the research center on *Spatial Cognition*, 2003–2006 [approx. 300 KEuro]
- Technology Transfer project with Gauselmann, 2003–2005 [approx. 15 KEuro]

- Member of graduate school on *Applications of Logic*, 2002–2008 [approx. 100 KEuro]
- Industrial project *Simulation of ground traffic* with UNIQUE, Zurich Switzerland, 2002 [15 KEuro]
- EU project *CogViSys* (with Karlsruhe, ETHZ, Oxford, Leuven), 2001–2003 [approx. 210 KEuro]
- DFG project *HEU-PLAN I,II*, 2001–2004 [approx. 240 KEuro]
- Industrial project *Lift control using AI planning techniques* with Schindler Lifts, Switzerland, 1999 [10 KEuro]
- Graduate school on *Man and Machine Intelligence* funded by DFG (together with G. Strube), 1999–2001 [approx. 50 KEuro]
- DFG project *ROBO-KOOP I,II*, 1999–2004 [approx. 240 KEuro]
- DFG project *FAST-QUAL-SPACE I-III*, 1996–2002 [approx. 350 KEuro]
- ESPRIT BRA project P6156 *DRUMS-II*, 1992–1996 [approx. 20KEuro]

5.2 Professional Organizations

- *Principles of Knowledge Representation and Reasoning, Inc.*: Former member of Advisory Board
- *International Joint Conferences on Artificial Intelligence*: Former member of Board of Trustees and former Secretary/Treasurer (2009–2021)
- *Gesellschaft für Informatik*: Member
- *American Association for Artificial Intelligence*: Member
- *ACM*: Member

5.3 Review Panels

- *European Research Council*: Member of panel for *ERC Starting Grants* (2012–2018)
- *International Conference and Research Center for Computer Science, Dagstuhl*: Member of the Scientific Directorate (2005–2019)
- *Deutsche Forschungsgemeinschaft*: Member of Fachkollegium Informatik (2004–2012)

5.4 Membership in Editorial Boards

- *Communications of the ACM*: Member of Editorial Board (2013–2019)
- *CONSTRAINTS*: Member of Editorial Board (2005–2011)
- *Journal of Applied Logic*: Member of Editorial Board (2005–2017)
- *Journal of Artificial Intelligence Research (JAIR)*:
 - Member of Editorial Board (1994–1996),
 - Associate Editor (1997–1999),
 - Member of Advisory Board (2000–2003)
- *Artificial Intelligence (AI)*:
 - Member of Editorial Board (1997–2002),
 - Research Note Editor (2000–2002)
 - Associate Editor (2015–2021)
- *Artificial Intelligence Communications (AICom)*: Member of Editorial Board (since 1998)

5.5 Conference Organization

- Secretary/Treasurer of *IJCAI* (2009–2021)
- *ICAPS-08* – Int. Conf. on Automated Planning and Scheduling: Conference Co-Chair
- *SC-04* – Spatial Cognition: Program Co-Chair
- *IJCAI'01* – Int. Joint Conf. on Artificial Intelligence: Program Chair
- *ECAI'00* – European Conf. on Artificial Intelligence: Area Chair for Knowledge Representation
- *AI&MATH'00* – Int. Symp. on Artificial Intelligence and Mathematics: Program Co-Chair
- *TIME'00* – Int. Workshop on Temporal Representation and Reasoning: General Chair
- *IJCAI'97* – Int. Joint Conf. on Artificial Intelligence: Tutorial Chair
- *KI'97* – German Annual Conf. on AI: General Chair

- *KI'94* – German Annual Conf. on Artificial Intelligence: Program Co-Chair
- *KR'92* – Int. Conf. on Principles of Knowledge Representation and Reasoning: Program Co-Chair

5.6 Contributions to and Organization of Summer Schools

- *ACAI/ICAPS Summer School on Planning 2011*: Co-Chair
- *ACAI 2007* – Advanced Course on Artificial Intelligence: Lecturer
- *ICCL Summer School 2005* – Summer School of the International Center for Computational Logic: Lecturer
- *LSS 2002* – 11th Annual Logic Summer School at ANU: Lecturer
- *ACAI 2001* – Advanced Course on Artificial Intelligence: Lecturer
- *PLANET 2000* – Summer School on AI Planning: Lecturer
- Fall School on Cognitive Science 2000: Lecturer
- Fall School on Cognitive Science 1998: Lecturer
- *LC'96* – Logic Colloquium: Invited Talk
- *KIFS'96* – Künstliche Intelligenz - Frühjahresschule: Lecturer
- *ACAI'95* – Advanced Course on Artificial Intelligence: Lecturer
- *ESLLI'93* – European Summer School on Logic, Language and Information: Invited Talk and Workshop Organization
- *KIFS'92* – Künstliche Intelligenz - Frühjahresschule: Program Chair
- *ESLLI'91* – European Summer School on Logic, Language and Information: Lecturer
- *KIFS'90* – Künstliche Intelligenz - Frühjahresschule: Lecturer

6 Publications

According to *Google Scholar*, my publications have been referenced more than 15000 times and my h-index is 59 (Sep 2021).

6.1 Books

1. E. Prassler, J. M. Zöllner, R. Bischoff, W. Burgard, R. Haschke, M. Hägele, G. Lawitzky, B. Nebel, P. Plöger, and U. Reiser, editors. *Towards Service Robots for Everyday Environments - Recent Advances in Designing Service Robots for Complex Tasks in Everyday Environments*, volume 76 of *Springer Tracts in Advanced Robotics*. Springer, 2012
2. G. Görz and B. Nebel. *Künstliche Intelligenz*. Fischer, Frankfurt/Main, Germany, 2003
3. G. Lakemeyer and B. Nebel, editors. *Exploring AI in the New Millenium*. Morgan Kaufmann, San Francisco, CA, 2002
4. G. Lakemeyer and B. Nebel, editors. *Foundations of Knowledge Representation*, volume 810 of *Lecture Notes in Artificial Intelligence*. Springer, Berlin, Heidelberg, New York, 1994
5. B. Nebel. *Reasoning and Revision in Hybrid Representation Systems*, volume 422 of *Lecture Notes in Artificial Intelligence*. Springer, Berlin, Heidelberg, New York, 1990

6.2 Conference Proceedings

6. C. Freksa, B. Nebel, , M. Hegarty, and T. Barkowsky, editors. *Spatial Cognition IX*, volume 8684 of *Lecture Notes in Computer Science*. Springer, 2014
7. A. Baca, M. Lames, K. Lyons, B. Nebel, and J. Wiemeyer, editors. *Computer Science in Sport - Mission and Methods, 07.09. - 10.09.2008*, volume 08372 of *Dagstuhl Seminar Proceedings*. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, Germany, 2008
8. J. Rintanen, B. Nebel, J. C. Beck, and E. Hansen, editors. *Proceedings of the 18th International Conference on Automated Planing and Scheduling (ICAPS-08)*. AAAI Press, 2008
9. A. G. Cohn, C. Freksa, and B. Nebel, editors. *Spatial Cognition: Specialization and Integration, 04.12. - 09.12.2005*, volume 05491 of *Dagstuhl Seminar Proceedings*. Internationales Begegnungs- und Forschungszentrum fuer Informatik (IBFI), Schloss Dagstuhl, Germany, 2007
10. C. Freksa, M. Knauff, B. Krieg-Brückner, B. Nebel, and T. Barkowsky, editors. *Spatial Cognition IV*, volume 3343 of *Lecture Notes in Computer Science*. Springer, 2004

11. B. Nebel, editor. *Proceedings of the 17th International Joint Conference on Artificial Intelligence (IJCAI-01)*. Morgan Kaufmann, 2001
12. G. Brewka, C. Habel, and B. Nebel, editors. *KI-97: Advances in Artificial Intelligence*. Springer, 1997
13. B. Nebel and L. Dreschler-Fischer, editors. *KI-94: Advances in Artificial Intelligence*. Springer, 1994
14. B. Nebel, W. Swartout, and C. Rich, editors. *Principles of Knowledge Representation and Reasoning: Proceedings of the 3rd International Conference (KR-92)*. Morgan Kaufmann, 1992

6.3 Granted Patents

15. B. Nebel and T. Weigel: *Vorrichtung und Verfahren zur Eingabe von Steuersignalen bei einem computerbasierten simulierten Tischfußballspiel*, Deutsches Patent- und Markenamt DE 103 29 181, 2005
16. B. Nebel, T. Weigel, and J. Koschikowski: *Tischgerät für Tischfußball, Hockey oder dergleichen und Verfahren zur automatischen Ansteuerung der an Stangen angeordneten Spielfiguren eines Tischspielgeräts für Fußball, Hockey oder dergleichen*. Deutsches Patent- und Markenamt Patent DE 102 12 475, 2003

6.4 Refereed Journal Papers

17. T. Engesser, R. Mattmüller, B. Nebel, and M. Thielscher. Game description language and dynamic epistemic logic compared. *Artif. Intell.*, 292:103433, 2021
18. F. Lindner, R. Mattmüller, and B. Nebel. Evaluation of the moral permissibility of action plans. *Artificial Intelligence*, 287:103350, 2020
19. D. Kuhner, L. D. Fiederer, J. Aldinger, F. Burget, M. Völker, R. T. Schirrmeister, C. Do, J. Boedecker, B. Nebel, T. Ball, and W. Burgard. A service assistant combining autonomous robotics, flexible goal formulation, and deep-learning-based brain-computer interfacing. *Robotics and Autonomous Systems*, 116:98 – 113, 2019
20. B. Nebel, T. Bolander, T. Engesser, and R. Mattmüller. Implicitly coordinated multi-agent path finding under destination uncertainty: Success guarantees and computational complexity. *Journal of Artificial Intelligence Research*, 64:497–527, 2019

21. M. Ragni, T. Barkowsky, B. Nebel, and C. Freksa. Cognitive space and spatial cognition: The SFB/TR 8 spatial cognition. *KI*, 30(1):83–88, 2016
22. M. Westphal, S. Wölfl, B. Nebel, and J. Renz. On qualitative route descriptions. *J. Philosophical Logic*, 44(2):177–201, 2015
23. C. Becker-Asano, F. Ruzzoli, C. Hölscher, and B. Nebel. A multi-agent system based on unity 4 for virtual perception and wayfinding. *Transportation Research Procedia*, 2:452–455, 2014
24. K. M. Wurm, C. Dornhege, B. Nebel, W. Burgard, and C. Stachniss. Coordinating heterogeneous teams of robots using temporal symbolic planning. *Autonomous Robots*, 34(4):277–294, 2013
25. B. Kleim, T. Ehrig, C. Scheel, C. Becker-Asano, B. Nebel, and B. Tuschen-Caffier. Bewältigungsverhalten in Notfallsituationen aus klinisch-psychologischer Perspektive. *Zeitschrift für Klinische Psychologie und Psychotherapie 41*, 41(3):166–179, 2012
26. C. Scheel, B. Kleim, J. Schmitz, C. Becker-Asano, D. Sun, B. Nebel, and B. Tuschen-Caffier. Psychophysiologische Belastungsreaktivität nach einem simulierten Feuer in einer Parkgarage. *Zeitschrift für Klinische Psychologie und Psychotherapie 41*, 41(3):180–189, 2012
27. J. Claßen, G. Röger, G. Lakemeyer, and B. Nebel. PLATAS — integrating planning and the action language Golog. *KI*, 26(1):61–67, 2012
28. B. Nebel and C. Freksa. AI approaches to cognitive systems - the example of spatial cognition. *Informatik Spektrum*, 34(5):462–468, 2011
29. A. Krumnack, L. Bucher, J. Nejasnic, B. Nebel, and M. Knauff. A model for relational reasoning as verbal reasoning. *Cognitive Systems Research*, 12(3-4):377–392, 2011
30. M. Westphal, C. Dornhege, S. Wölfl, M. Gissler, and B. Nebel. Guiding the generation of manipulation plans by qualitative spatial reasoning. *Spatial Cognition & Computation: An Interdisciplinary Journal*, 11(1):75–102, 2011
31. M. Brenner and B. Nebel. Continual planning and acting in dynamic multiagent environments. *Journal of Autonomous Agents and Multiagent Systems*, 19(3):297–331, 2009
32. T. Weigel and B. Nebel. Tischfußball: Mensch versus Computer. *Informatik Spektrum*, 31(4):323–332, 2008
33. P. Plöger, K. Pervözl, C. Mies, P. Eyerich, M. Brenner, and B. Nebel. The DESIRE service robotics initiative. *KI*, 22(4):29–32, 2008

34. D. Wolter, F. Dylla, S. Wöfl, J. O. Wallgrün, L. Frommberger, B. Nebel, and C. Freksa. SailAway: Spatial cognition in sea navigation. *KI*, 22(1):28–30, 2008
35. S. Li and B. Nebel. Qualitative spatial representation and reasoning: A hierarchical approach. *The Computer Journal*, 50(4):391–402, 2007
36. S. Thiebaux, J. Hoffmann, and B. Nebel. In defense of axioms in PDDL. *Artificial Intelligence*, 168:38–69, 2005
37. B. Nebel and A. Scivos. Formal properties of constraint calculi for qualitative spatial reasoning. *KI*, 16(4):14–18, 2002
38. T. Weigel, J. Gutmann, M. Dietl, A. Kleiner, and B. Nebel. CS Freiburg: coordinating robots for successful soccer playing. *IEEE Trans. Robotics and Automation*, 18(5):685–699, 2002
39. B. Nebel and M. Jäger. Cooperating physical robots and robotic football. *Upgrade*, 3(5):39–45, 2002
40. Y. Dimopoulos, B. Nebel, and F. Toni. On the computational complexity of assumption-based argumentation for default reasoning. *Artificial Intelligence*, 141(1-2):57–78, 2002
41. J. Renz and B. Nebel. Efficient methods for qualitative spatial reasoning. *Journal of Artificial Intelligence Research*, 15:289–318, 2001
42. B. Nebe. Publikationen, Zitate, Drittmittelprojekte und Promotionen an deutschen Informatikfakultäten im Spiegel des WWW. *Informatik-Spektrum*, 24(4):234–249, 2001
43. J. Hoffmann and B. Nebel. The FF planning system: Fast plan generation through heuristic search. *Journal of Artificial Intelligence Research*, 14:253–302, 2001
44. J.-S. Gutmann, T. Weigel, and B. Nebel. A fast, accurate, and robust method for self-localization in polygonal environments using laser-range-finder. *Advanced Robotics*, 14(8):651–668, 2001
45. B. Nebel. On the compilability and expressive power of propositional planning formalisms. *Journal of Artificial Intelligence Research*, 12:271–315, 2000
46. B. Nebel. Die Ausdrucksstärke von Planungsformalimen: Eine formale Charakterisierung. *KI*, 13(3):12–19, 1999
47. J. Renz and B. Nebel. On the complexity of qualitative spatial reasoning: A maximal tractable fragment of the Region Connection Calculus. *Artificial Intelligence*, 108(1-2):69–123, 1999

48. B. Nebel. Solving hard qualitative temporal reasoning problems: Evaluating the efficiency of using the ORD-Horn class. *CONSTRAINTS*, 1(3):175–190, 1997
49. C. Bäckström and B. Nebel. Complexity results for SAS⁺ planning. *Computational Intelligence*, 11(4):625–655, 1995
50. B. Nebel and J. Koehler. Plan reuse versus plan generation: A theoretical and empirical analysis. *Artificial Intelligence*, 76(1-2):427–454, 1995
51. B. Nebel and H.-J. Bürckert. Reasoning about temporal relations: A maximal tractable subclass of Allen’s interval algebra. *Journal of the Association for Computing Machinery*, 42(1):43–66, 1995
52. B. Nebel. Komplexitätsanalysen in der Künstlichen Intelligenz. *KI*, 9(2):6–14, 1995
53. J. Heinsohn, D. Kudenko, B. Nebel, and H.-J. Profitlich. An empirical analysis of terminological representation systems. *Artificial Intelligence*, 68(2):367–397, 1994
54. S. Bergamaschi and B. Nebel. Automatic building and validation of complex object database schemata supporting multiple inheritance. *Applied Intelligence*, 4(2):185–204, 1994
55. F. Baader, B. Hollunder, B. Nebel, H.-J. Profitlich, and E. Franconi. An empirical analysis of optimization techniques for terminological representation systems or “making KRIS get a move on”. *Applied Intelligence*, 4(2):109–132, 1994
56. B. Nebel and C. Bäckström. On the computational complexity of temporal projection, planning, and plan validation. *Artificial Intelligence*, 66(1):125–160, 1994
57. F. Baader, H.-J. Bürckert, B. Nebel, W. Nutt, and G. Smolka. On the expressivity of feature logics with negation, functional uncertainty, and sort equations. *Journal of Logic, Language, and Information*, 2:1–18, 1993
58. B. Nebel. Terminological reasoning is inherently intractable. *Artificial Intelligence*, 43:235–249, 1990
59. B. Nebel. Computational complexity of terminological reasoning in BACK. *Artificial Intelligence*, 34(3):371–383, 1988
60. B. Nebel. How well does a vanilla loop fit into a frame? *Data & Knowledge Engineering*, 1(2):181–194, 1985

6.5 Other Journal Papers

61. T. Ågotnes, G. Lakemeyer, B. Löwe, and B. Nebel. Planning with epistemic goals (Dagstuhl seminar 14032). *Dagstuhl Reports*, 4(1):83–103, 2014
62. B. Nebel and A. Kleiner. Multi-Agenten-Systeme in der Intralogistik – Zweiter Teil: Effizient transportieren. *IEE - Elektrische Automatisierung + Antriebstechnik*, (5):34–37, 2012
63. B. Nebel and A. Kleiner. Multi-Agenten-Systeme in der Intralogistik – Erster Teil: Gemeinsam denken. *IEE - Elektrische Automatisierung + Antriebstechnik*, (4):48–53, 2012
64. C. Freksa, H. Schultheis, K. Schill, T. Tenbrink, T. Barkowsky, C. Hölscher, and B. Nebel. Spatial cognition: Reasoning, Action, Interaction. *KI*, 24(4):329–334, 2010
65. F. Dylla, D. Wolter, L. Frommberger, C. Freksa, S. Wölfl, and B. Nebel. Qualitative Methoden zur Steuerung von Agenten - SailAway: Raumkognition zur Steuerung von Schiffen. *Industrie Management*, 4, 2008
66. B. Nebel. Helfer aus dem Stadion. *Geist & Gehirn*, (1):6–8, 2002
67. B. Nebel. Fußball und Künstliche Intelligenz: Vom Denken zum Handeln. *KI*, 16(1), 2002
68. R. Moratz and B. Nebel. Sichtweisen der kognitiven Robotik. *KI*, 15(3):71, 2001
69. L. S. Lopes, J. H. Connell, P. Dario, R. Murphy, P. Bonasso, B. Nebel, N. Nilsson, and R. A. Brooks. Sentience in robots: Applications and challenges. *IEEE Intelligent Systems*, 16(5):66–69, 2001
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