

CURRICULUM VITAE

Dr. Daniel Kudenko

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Research Interests

- Machine Learning (specifically Reinforcement Learning)
- Data Analytics
- Multi-Agent Systems
- User Modeling
- Artificial Intelligence for Interactive Entertainment

Education

1993-1998: Graduate study in computer science at Rutgers University, New Jersey.
Degree: Ph.D.

1987-1993: Undergraduate and graduate study in computer science at Saarland
University, Germany. Degree: Diplom Informatiker.

Professional Experience

- **Research Group Leader**, L3S Research Center, University of Hannover, Germany, 2019-present.
- **Professor**, National Research Academic University of the Russian Academy of Science, St Petersburg, Russia, 2017-2018.
- **Head of Group**, Agent Systems and Reinforcement Learning Group, JetBrains Research, St Petersburg, Russia, 2017-2019.
- **Lecturer**, Artificial Intelligence Group, Department of Computer Science, University of York, 1998 – 2019.
- **Project Consultant**, QinetiQ, Adaptive Agents for Agile Teamwork Project, 2003-2006.
- **AI Consultant**, Core Design Studio, Eidos, 2005-2006.
- **Knowledge Transfer Champion**, Yorkshire Forward, 2006-2009.
- **Research/Teaching Assistant**, Rutgers University, 1993-1998.

Appointments

- Member of Management Committee of AgentLink II, European Network of Excellence on Agent Computing.
- Coordinator of the inter-network SIG on “Agents that Learn, Adapt, and Discover” (AgentLink II , ILPNet, EUnite).
- Coordinator of the Sensor Planning Research Challenge in cooperation with QinetiQ.
- Member of the AI Standards Committee of the International Games Developers Association (IGDA).

Honors:

- Distinguished Lecture at University of Luxembourg, July '17
- Invited Keynote Lecture at ADMI '09.
- Invited Lecture at Paris Game AI conference, June '09.
- Best student paper award, ICAART 2017.
- Best paper award, SLS 2007.
- Best paper nomination, Gecco 2007.
- Johnson & Johnson Bioinformatics Fellowship, 1998.
- DIMACS Research Scholarship, Summer 1997.

Teaching Experience

- Extensive (20 years) experience in development of course curricula and teaching of courses on a wide range of computer science modules:
 - Reinforcement Learning
 - Introduction to Machine Learning
 - Multi-Agent Interactions and Games
 - Logic Programming and Artificial Intelligence
 - Artificial Intelligence for Games
 - Design of Information Systems
 - Programming in Python
 - Theory of Computation
 - Discrete Mathematics
- Supervised more than 100 Masters and Bachelors thesis projects.
- Member of the Departmental Teaching Committee at the University of York 1999-2004, and 2008-2017.
- Worldwide Exchange Coordinator (2007-present)
- Member of the Graduate Students Committee at the University of York, 2002-2004.
- Secretary of Departmental Board of Examiners, 2005-2007.
- Fellow of the Higher Education Academy, UK.

Graduated PhD Students:

1. Ali Abusnina (2014, now at Boehringer Ingelheim, Germany)
2. Abdullah Algarni (2017, now at Saudi Fund for Development, Saudi Arabia)
3. Heather Barber (2008, now at IBM, UK)
4. Sam Devlin (2013, now at Microsoft Research, Cambridge, UK)
5. Kyriakos Efthymiadis (2015, now at Vrije Universiteit Brussel, Belgium)
6. Matthew Grounds (2007, now at Yell.com, USA)
7. Marek Grzes (2010, now at University of Kent, UK)
8. Rania Hodhod (2010, now at Columbus State University, USA)
9. Spiros Kapetanakis (2004, now at Absa Capital, UK)
10. Zoe Webster (Lock) (2005, now at Innovate UK)
11. Kleantlis Malialis (2015, now at University of Cyprus, Cyprus)
12. George Mason (2018, now at University of York, UK)
13. Enda Ridge (2008, now at Sainsbury, UK)
14. Peter Scopes (2016, now at NCC Group, UK)
15. Arturo Servin (2009, now at University of Southampton, UK)
16. I-Hsien Ting (2007, now at Chinese Culture University, Taipei, Taiwan)
17. Hanting Xie (2018, now at Amazon, UK)
18. David Zendle (2016, now at York St Johns University, UK)

External Funding and Industrial Collaboration:

- Principal Investigator, “Monte-Carlo Tree Search for Business Decision Making”, Knowledge Transfer Partnership with Mood International, InnovateUK (2016-2018), £155,000.
- Principal Investigator, “Crowd-Sourced Prediction of Plant Pest and Disease Occurrence using Mobile Apps”, with Growing Interactive, InnovateUK/BBSRC (2015-2017), £275,000.
- Co-investigator, “New Economic Models for Games (NEMOG)”, EPSRC (2013-2016), £1.2M.
- Yorkshire Forward Proof-of-Concept grant to found spin-out company on interactive drama (Jan-Dec 2011), £52,000.
- PI for Sensor Planning and Management (SIPAM) Project for QinetiQ/MoD (2006-2008), £90,000.
- Co-Investigator, “Assured Reinforcement Learning”, DSTL (2014-2018).
- Microsoft Research PhD studentship, 2018-2021.
- Four doctoral students funded by QinetiQ (scholarship & tuition fees).
- Artificial Intelligence for Games, Industrial Secondment to Eidos (Core Design Studios), co-sponsored by Royal Academy of Engineering, 2004-2005, £30,000.
- Pump Priming Grant from University of York for the development of a robotic soccer team, 2001, £10,000.
- 3-year EMR consulting on A3T MoD project for QinetiQ/MoD (2003 – 2006).
- Collaboration with Beautiful Games Studios on AI for the Championship Manager game.
- Collaboration with NORTEL Networks on the application of ontologies for corporate memory systems.

Conference/Workshop Chairmanship

- Co-chair of ACM Symposium on Applied Computing: Intelligent Robotics and Multi-Agent Systems Track, 2016, 2017, and 2018.
- Sponsorship Chair of the International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS), 2011.
- Industrial Liaison Chair for International Conference on User Modelling (UM) 2005.
- Chair and founder of the Symposia on Adaptive and Learning Agents and Multi-Agent Systems (ALAMAS), 2001 –2004 (still an ongoing annual event, merged and renamed to Adaptive Learning Agents, ALA at AAMAS), currently member of senior steering committee.

Selected Program Committee Membership

- Senior Program Committee of International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS) '16 , '18, and '19, and program committee of AAMAS '05, '06, '07, '10, and '11.
- National Conference on Artificial Intelligence (AAAI) '11, '16.
- International Joint Conference on Artificial Intelligence (IJCAI) '18
- IEEE/WIC International Conference on Intelligent Agent Technology (IAT) '03,'04,'05, '06, '07, '08, '09, and '10.
- International Conference on Interactive Digital Storytelling '10.
- European Conference on Artificial Intelligence (ECAI) '08.
- International Conference on Machine Learning (ICML) '00.
- International Workshop on Cooperative Information Agents (CIA) '02, '03, '04, '05 '06, and '07.
- KES International Symposium on Agent and Multi-Agent Systems : Technologies and Applications, '08, '09, and '10 .
- AAAI Symposium on Intelligent Narrative Technologies II, '09.
- International Conference of Information Resources Management Association (IRMA) '05.
- European Workshop on Multi-Agent Systems (EUMAS), '08, '09, and '10.
- European Workshop on Reinforcement Learning (EWRL) '08.
- International Workshop on Adaptive and Learning Agents (ALA), '07, '08, '09, and '10.
- Workshop on Integrating Technologies for Interactive Stories (ITIS), '08.
- International workshop on Interactions between Data Mining and Agents (ADMI) '06, '09 and '10.
- Workshop on “Autonomous Intelligent Systems: Agent and Data Mining” (AIS-ADM) '05 and '07.
- European Symposium on Adaptive and Learning Agents and Multi-Agent Systems (ALAMAS) '05, '06, and '07.
- German Conference on Multi-Agent System Technologies (MATES), '05, '06, '07, '08, and '09.

- International Workshop on Ubiquitous and Decentralized User Modelling (UbiDeUM) '07.
- Workshop on Decentralized, Agent-Based and Social Approaches to User Modelling (DASUM) '05
- Symposium on AI and Narrative Games for Education, '07.
- International Workshop on Web Mining for E-commerce and E-Services '07.

Journal Editing

- Editor of special issue on “Transfer Learning”, Kuenstliche Intelligenz, Springer, 2014.
- Co-editor of the special issue on “Nature-Inspired Systems for Parallel, Asynchronous, and Decentralized Environments”, Multi-Agent and Grid Systems Journal (MAGS), 2006.
- Co-editor of the special issue on “Agent Technology”, Artificial Intelligence and Simulation of Behaviour, 2001.

Journal Reviewing

- JAIR, AI Journal, ML Journal, AAMAS journal, JMLR, IEEE Transactions on Computational Intelligence for Games, AI Review, Journal of Robotics and Autonomous Systems, and many others.

References:

1. Dr. Alan Frisch, Department of Computer Science, University of York, York YO10 5GH, UK. Email: alan.frisch@york.ac.uk.
2. Dr. Enda Howley, Department of Information Technology, National University of Ireland, Galway. Email: enda.howley@nuigalway.ie.
3. Prof. Dr. Ann Nowe, Vrije Universiteit Brussel, Faculty of Sciences (WE), Department of Computer Science, Pleinlaan 2, B-1050 Brussels, Belgium. Email: asnowe@info.vub.ac.be.
4. Prof. Dr. Karl Tuyls, Department of Computer Science, University of Liverpool, Liverpool L69 3BX, UK. Email: karltuyls@google.com.

Publications:

Google Scholar (as of 07/08/19): h-index: 29, >2700 citations.

ORCID: orcid.org/0000-0003-3359-3255

Books:

1. K. Tuyls, Z. Guessoum, A. Nowe, D. Kudenko (eds.) (2008). "Adaptive Agents and Multi-Agent Systems III", *Springer LNAI 4865*.
2. D. Kudenko, D. Kazakov, E. Alonso (eds.) (2005). "Adaptive Agents and Multi-Agent Systems II", *Springer LNAI 3394*.
3. E. Alonso, D. Kazakov, D. Kudenko (eds.) (2003). "Adaptive Agents and Multi-Agent Systems", *Springer LNAI 2636*.

Book Chapters :

1. G. Mason, R. Calinescu, D. Kudenko, A. Banks (2017): "Assurance in Reinforcement Learning Using Quantitative Verification", In: I. Hatzilygeroudis, V. Palade (eds.): *Advances in Hybridization of Intelligent Methods*. Smart Innovation, Systems and Technologies, vol 85, Springer.
2. E. Ridge, D. Kudenko (2008). "Determining whether a problem characteristic affects heuristic performance. A rigorous Design of Experiments approach", In: C. Cotta, J. van Hemert (eds.): *Recent Advances in Evolutionary Computation for Combinatorial Optimization*. Springer, Studies in Computational Intelligence Vol. 153.
3. H. Barber, D. Kudenko (2007). "Adaptive Generation of Dilemma-Based Interactive Narrative", In: N. Baba, L. C. Jain, H. Handa (eds.): *Advanced Intelligent Paradigms in Computer Games*, Springer.
4. D. Kudenko, D. Kazakov, E. Alonso (2002). "Machine Learning for Agents and Multi-Agent Systems", In: V. Plekhanova (ed.): *Intelligent Agent Software Engineering*, Idea Group Publishing.
5. D. Kazakov, D. Kudenko (2001). "Machine Learning and Inductive Logic Programming for Multi-Agent Systems", In: M.Luck, V. Marik, O. Stepankova, and R. Trappl (eds.): *Multi-Agent Systems and Applications*, Springer LNAI 2086.

Refereed Journal Papers:

1. Y. Wei, D. Kudenko, S.J. Lun. L. Wu, X. Meng (2019): "A Reinforcement Learning Based Auto-scaling Approach for SaaS Providers in Dynamic Cloud Environment", *Mathematical Problems in Engineering* [to appear].
2. D. Zendle, D. Kudenko, P. Cairns (2018): "Behavioural realism and the activation of aggressive concepts in violent video games", *Entertainment Computing* 25.
3. P. Holloway, D. Kudenko, J. Bell (2018): "Dynamic Selection of Environmental Variables to Improve the Prediction of Aphid Phenology: A Machine Learning Approach", *Ecological Indicators* 88.
4. D. Zendle, P.Cairns, D. Kudenko (2018): "No Priming in Video Games", *Computers in Human Behaviour* 78.

5. A. Nucciarelli, K.J. Fernandes, N. Goumagias, I. Cabras, S. Devlin, D. Kudenko, P. Cowling (2017): "From Value Chains to Technological Platforms: The Effects of Crowdfunding in the Digital Game Industry", *Journal of Business Research* 78.
6. A. Eck, L.-K. Soh, S. Devlin, D. Kudenko (2016): "Potential-Based Reward Shaping for Finite Horizon Online POMDP Planning", *Journal of Autonomous Agents and Multi-Agent Systems* 30(3).
7. K. Efthymiadis, S. Devlin, and D. Kudenko (2016). Overcoming Incorrect Knowledge in Plan-Based Reward Shaping, *Knowledge Engineering Review (KER)* 31(1), Cambridge Journals .
8. K. Malialis, D. Kudenko (2015): "Distributed Response to Network Intrusions Using Multi-Agent Reinforcement Learning", *Engineering Applications of Artificial Intelligence* 41 (May 2015) .
9. K. Malialis, S. Devlin, D. Kudenko (2015): "Distributed Reinforcement Learning for Adaptive and Robust Network Intrusion Response", *Connection Science* 27(3).
10. K. Efthymiadis, D. Kudenko (2014): "A Comparison of Plan-Based and Abstract MDP Reward Shaping", *Connection Science* 26(1).
11. S. Devlin, M. Grzes, D. Kudenko (2011): "An Empirical Study of Potential-Based Reward Shaping and Advice in Complex, Multi-Agent Systems", *Advances in Complex Systems* 14(2).
12. R. Hodhod, D. Kudenko, P. Cairns (2011): "Innovative Integrated Architecture for Educational Games: Challenges and Merits", *Transactions on Edutainment* 5.
13. H. Barber, D. Kudenko (2010): "Generation of Adaptive Dilemma-based Interactive Narratives", *IEEE Transactions on Computational Intelligence in Games* 1(4) .
14. M. Grzes, D. Kudenko (2010): "Online Learning of Shaping Rewards in Reinforcement Learning", *Neural Networks*, 23(4).
15. M. Zheng, D. Kudenko (2010): "Automated Event Recognition for Football Commentary Generation", *International Journal of Gaming and Computer-Mediated Simulations* 2(4).
16. R. Hodhod, D. Kudenko, P. Cairns (2010): "Adaptive Interactive Narrative Model to teach Ethics", *International Journal of Gaming and Computer-Mediated Simulations* 2(4).
17. M. Grzes and D. Kudenko (2009). "Reinforcement Learning with Reward Shaping and Mixed Resolution Function Approximation". *International Journal of Agent Technologies and Systems (IJATS)*, 1(2):36-54.
18. Lillian Clark, I-Hsien Ting, Chris Kimble, Peter Wright, Daniel Kudenko (2006). "Combining Ethnographic and Clickstream Data to Identify Browsing Strategies" *Journal of Information Research* 11 (2).
19. E. Alonso, M. d'Inverno, D. Kudenko, M. Luck, and J.Noble (2002). "Learning in Multi-Agent Systems", *Knowledge Engineering Review* 16:3.
20. J.Heinsohn, B.Nebel, D.Kudenko, H.J.Profitlich (1994). "An Empirical Analysis of Terminological Representation Systems", *Artificial Intelligence* 68:2.

Refereed Conference/Workshop Papers:

1. A. Malysheva, D. Kudenko, A. Shpilman (2018): "Learning to Run with Potential-Based Reward Shaping and Demonstrations from Video Data", *The 15th International Conference on Control, Automation, Robotics, and Vision (ICARCV)*.
2. I. Sosin, D. Kudenko, A. Shpilman (2018): "Continuous Gesture Recognition from sEMG Sensor Data with Recurrent Neural Networks and Adversarial Domain Adaptation", *The 15th International Conference on Control, Automation, Robotics, and Vision (ICARCV)*.
3. A. Gaydashenko, D. Kudenko, A. Shpilman (2018): "A comparative evaluation of machine learning methods for robot navigation through human crowds", *Seventeenth International Conference on Machine Learning and Applications (ICMLA)*.
4. M. Li, T. Brys, D. Kudenko (2018): "Introspective Reinforcement Learning and Learning from Demonstration", *17th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*.
5. M. Li, D. Kudenko (2018): "Reinforcement learning from multiple experts demonstrations", *Workshop on Adaptive Learning Agents (ALA) at the Federated AI Meeting 18*.
6. A. Malysheva, A. Shpilman, and D. Kudenko (2018): "Learning to Run with Reward Shaping from Video Data", *Workshop on Adaptive Learning Agents (ALA) at the Federated AI Meeting 18*.
7. J. Burden, D. Kudenko (2018): "Using Uniform State Abstractions For Reward Shaping With Reinforcement Learning", *Workshop on Adaptive Learning Agents (ALA) at the Federated AI Meeting 18*.
8. N. Al-Roussais, D. Kudenko (2018): "iSynchronizer: A Tool for Extracting, Integration and Analysis of MovieLens and IMDb Datasets", *Holistic User Modelling Workshop at UMAP '18*.
9. Y. Wei, D. Kudenko, S. Liu, L. Pan, L. Wu, X. Meng (2017): "A Reinforcement Learning Based Workflow Application Scheduling Approach For SaaS Providers in Dynamic Cloud Environments", *13th EAI International Conference on Collaborative Computing*.
10. A. Shpilman, D. Boikiy, M. Plyakova, D. Kudenko, A. Burakov, E. Nadezhdina (2017): "Deep Learning of Cell Classification using Microscope Images of Intracellular Microtubule Networks", *Sixteenth International Conference on Machine Learning and Applications (ICMLA)*.
11. G. Mason, R. Calinescu, D. Kudenko, A. Banks (2017): "Assured Reinforcement Learning with Formally Verified Abstract Policies", *Ninth International Conference on Agents and Artificial Intelligence (ICAART)*. **[Best Student Paper Award]**.
12. A. Algarni, D. Kudenko (2017): "Distribution Data Across Multiple Cloud Storage using Reinforcement Learning Method", *Ninth International Conference on Agents and Artificial Intelligence (ICAART)*.
13. K. Malialis, S. Devlin, D. Kudenko (2016): "Resource Abstraction for Reinforcement Learning in Multi-Agent Congestion Problems", *Fifteenth International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS-16)*.

14. G. Mason, R. Calinescu, D. Kudenko (2016): "Combining Reinforcement Learning and Quantitative Verification for Agent Policy Assurance", *6th International Workshop on Combinations of Intelligent Methods and Applications (CIMA)*.
15. H. Xie, S. Devlin, D. Kudenko (2016): "Predicting Disengagement in Free-to-Play Games with Highly Biased Data", *AIIDE Workshop on Player Analytics*.
16. K. Efthymiadis, D. Kudenko (2015): "Knowledge Revision for Reinforcement Learning with Abstract MDPs", *Fourteenth International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS-15)*
17. D. Zendle, P. Cairns, D. Kudenko (2015): "Higher Graphical Fidelity Decreases Players Access to Aggressive Concepts in Violent Video Games", *ACM CHI Play*.
18. S. Devlin, L. Yliniemi, D. Kudenko, K. Tumer (2014): "Potential-based Difference Rewards for Multiagent Reinforcement Learning", *The 13th International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS-14)*.
19. K. Efthymiadis, S. Devlin, D. Kudenko (2014): "Knowledge Revision for Reinforcement Learning with Abstract MDPs", *The 13th International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS-14)*.
20. T. Brys, A. Nowe, D. Kudenko, M.E. Taylor (2014): "Combining Multiple Correlated Reward and Shaping Signals by Measuring Confidence.", *The 28th Conference of the American Association on Artificial Intelligence (AAAI-14)*.
21. A. Abusnina, D. Kudenko, R. Roth: "Selection of Co-variance Functions in Gaussian Process-Based Soft Sensors", *IEEE International Conference on Industrial Technology (ICIT-14)*.
22. S. Devlin, P.I. Cowling, D. Kudenko, N. Goumagias, A. Nucciarelli I. Cabras, K. Fernandez, F.Li: "Game Intelligence", *IEEE Conference on Computational Intelligence in Games (CIG-14)*.
23. A. Abusnina, D. Kudenko, R. Roth (2014): "Gaussian Process-Based Inferential Control System", *International Joint Conference on Soft Computing (SOCO-14)*.
24. T. Brys, A. Harutyunyan, P. Vrancx, M.E. Taylor, D. Kudenko, A. Nowe (2014): "Multi-Objectivizations of Reinforcement Learning by Reward Shaping", *IEEE International Joint Conference on Neural Networks (IJCNN-14)*.
25. K. Malialis, S. Devlin, D. Kudenko (2014): "Coordinated Team Learning and Difference Rewards for Distributed Intrusion Response", *The 21st European Conference on Artificial Intelligence (ECAI-14)*.
26. H. Xie, S. Devlin, D. Kudenko (2014): "Predicting Player Disengagement in Online Games", *Computer Games Workshop at ECAI-14*.
27. K. Malialis, S. Devlin, D. Kudenko (2014): "Intrusion Response Using Difference Rewards for Scalability and Online Learning", *Workshop on Adaptive and Learning Agents at AAMAS (ALA-14)*.
28. K. Malialis, D. Kudenko (2013): "Multi-Agent Router Throttling: Decentralized Response Against DDoS Attacks", *The Twenty-Fifth Annual Conference on Innovative Applications of Artificial Intelligence (IAAI-13)*.
29. K. Efthymiadis, S. Devlin, and D. Kudenko (2013): "Overcoming Erroneous Domain Knowledge in Plan-Based Reward Shaping", *Twelfth International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, 2013.

30. A. Eck, L.K. Soh, S. Devlin, and D. Kudenko (2013): "Potential-Based Reward Shaping for POMDPs". *Twelfth International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*.
31. K. Efthymiadis and D. Kudenko (2013). A Comparison of Plan-Based and Abstract MDP Reward Shaping, *Workshop on Adaptive and Learning Agents (ALA) at AAMAS '13*.
32. S. Devlin, D. Kudenko (2012): "Dynamic Potential-Based Reward Shaping", *Eleventh International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)*.
33. K. Efthymiadis, S. Devlin, D. Kudenko (2012): "Overcoming Incorrect Knowledge in Plan-Based Reward Shaping", *Workshop on Adaptive and Learning Agents (ALA) at AAMAS '12*.
34. S. Devlin, D. Kudenko (2012): "Plan-Based Reward Shaping for Multi-Agent Reinforcement Learning", *Workshop on Adaptive and Learning Agents (ALA) at AAMAS '12*.
35. K. Malialis, D. Kudenko (2012): "Reinforcement Learning of Throttling for DDoS Attack Response", *Workshop on Adaptive and Learning Agents (ALA) at AAMAS '12*.
36. Y.-M. DeHauwere, S. Devlin, D. Kudenko, A. Nowe (2012): "Context-Sensitive Reward Shaping in a Loosely Coupled Multi-Agent System", *Workshop on Adaptive and Learning Agents (ALA) at AAMAS '12*.
37. S. Devlin, D. Kudenko (2011): "Theoretical Considerations of Reward Shaping for Multi-Agent Systems", *Tenth International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)*.
38. S. Devlin, M. Grzes, D. Kudenko (2011): "Multi-Agent Potential-based Reward Shaping for RoboCup KeepAway", *Tenth International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)*.
39. M. Grzes, D. Kudenko (2010): "PAC-MDP Learning with Knowledge-based Admissible Models", *Ninth International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)*.
40. M. Arinbjarnar, D. Kudenko (2010): "Bayesian Networks: Real-Time Applicable Decision Mechanisms for Intelligent Agents", *IEEE Conference on Computational Intelligence and Games (CIG '10)*.
41. S. Devlin, M. Grzes, D. Kudenko (2010): "Multi-Agent Reinforcement Learning with Reward Shaping for KeepAway Takers", *AAMAS'10 Workshop on Adaptive and Learning Agents (ALA'10)*.
42. M. Arinbjarnar, D. Kudenko (2009): "Actors and Characters in Virtual Drama", *Ninth International Conference on Intelligent Virtual Agents (IVA)*.
43. R. Hodhod, D. Kudenko, P. Cairns (2010): "Character Education Using Pedagogical Agents and Socratic Voice", *The 23rd International FLAIRS Conference*.
44. R. Hodhod, D. Kudenko, P. Cairns (2009): "Educational Narrative and Student Modeling for Ill-Defined Domains.", *International Conference on Artificial Intelligence for Education (AIED)*.
45. S. Devlin, M. Grzes, D. Kudenko (2009): "Reinforcement Learning in RoboCup KeepAway with Partial Observability", *IEEE/WIC/ACM International Joint Conference on Intelligent Agent Technology (IAT)*.
46. M. Arinbjarnar, D. Kudenko (2009): "Directed Emergent Drama vs. Pen & Paper Role-Playing Games.", *AISB'09 Symposium: AI & Games*.

47. M. Arinbjarnar, H. Barber, D. Kudenko (2009): "A Critical Review of Interactive Drama Systems", *AISB'09 Symposium: AI & Games*.
48. M. Zheng, D. Kudenko (2009): "Automated Event Recognition for Football Commentary Generation", *AISB'09 Symposium: AI & Games*.
49. R. Hodhod, D. Kudenko, P. Cairns (2009): "Serious Games to Teach Ethics". *AISB'09 Symposium: AI & Games*.
50. R. Hodhod, D. Kudenko, P. Cairns. (2009). "AEINS: Adaptive Educational Interactive Narrative System to Teach Ethics". *AIED Workshop on Intelligent Educational Games*.
51. M. Grzes and D. Kudenko (2009): "Improving Optimistic Exploration in Model-free Reinforcement Learning", *Proceedings of the 9th International Conference on Adaptive and Natural Computing Algorithms (ICANNGA'09)*.
52. M. Grzes and D. Kudenko (2009): "Learning Shaping Rewards in Model-based Reinforcement Learning", *AAMAS'09 Workshop on Adaptive and Learning Agents (ALA'09)*.
53. M. Arinbjarnar, D. Kudenko (2008): "Schemas in Directed Emergent Drama", *First Joint International Conference on Interactive Digital Storytelling (ICIDS)*, Springer LNCS 5334.
54. H. Barber, D. Kudenko (2008): "Generation of Dilemma-based Narratives: Method and Turing Test Evaluation", *First Joint International Conference on Interactive Digital Storytelling (ICIDS)*, Springer LNCS 5334.
55. R. Hodhod, D. Kudenko (2008): "Towards Intelligent Educational Interactive Narrative". *International Conference on Narrative in Interactive Learning Environments (NILE)*.
56. R. Hodhod, D. Kudenko (2008): "Interactive Narrative and Intelligent Tutoring for Ill Defined Domains". Workshop on Intelligent Tutoring Systems for Ill-Structured Domains at ITS'08.
57. A. Servin, D. Kudenko (2008): "Multi-Agent Reinforcement Learning for Intrusion Detection: A case study and evaluation", Sixth German Conference on Multi-Agent System Technologies (MATES).
58. M. Grzes, D. Kudenko (2008): "Plan-based reward shaping for reinforcement learning", *Fourth IEEE International Conference on Intelligent Systems (IS)*.
59. M. Grzes, D. Kudenko (2008): "Robustness Analysis of SARSA(λ): Different Models of Reward and Initialisation", *13th International Conference on Artificial Intelligence: Methodology, Systems, Applications (AIMSA)*, Springer LNAI 5253.
60. M. Grzes, D. Kudenko (2008): "Multigrid reinforcement learning with reward shaping", *18th International Conference on Artificial Neural Networks (ICANN)*, Springer LNCS 5163.
61. M. Grzes, D. Kudenko (2008): "An Empirical Analysis of the Impact of Prioritised Sweeping on DynaQ", *International Conference on Artificial Intelligence and Soft Computing (ICAISC)*.
62. M. Grzes, D. Kudenko (2008): "Learning Potential for Reward Shaping in Reinforcement Learning with Tile Coding", *Eighth Workshop on Adaptive Agents and Multi-Agent Systems (ALAMAS-ALAg)*.
63. M. Grzes, D. Kudenko (2008): "Plan-based Reward Shaping for Reinforcement Learning", *Eighth Workshop on Adaptive Agents and Multi-Agent Systems (ALAMAS-ALAg)*.
64. A. Servin, D. Kudenko (2008): "Multi-Agent Reinforcement Learning for Intrusion Detection: A case study and evaluation", *Eighth Workshop on*

Adaptive Agents and Multi-Agent Systems (ALAMAS-ALAg).

65. H. Barber, D. Kudenko (2008): "Generation of Dilemma-based Interactive Narratives with a Changeable Story Goal", Second International Conference on Intelligent Technologies for Interactive Entertainment (INTETAIN).
66. E. Ridge, D. Kudenko (2007): "Tuning the Performance of the MMAS Heuristic", *Workshop on Engineering Stochastic Local Search Algorithms (SLS)*, Springer LNCS 4638 [**Best Paper Award**].
67. E. Ridge, D. Kudenko (2007): "Analyzing Heuristic Performance with Response Surface Models: Prediction, Optimization and Robustness", *Genetic and Evolutionary Computation Conference (GECCO)* [**Best Paper Nomination**]
68. E. Ridge, D. Kudenko (2007): "Screening and Tuning the Parameters Affecting Heuristic Performance", *Genetic and Evolutionary Computation Conference (GECCO)*.
69. H. Barber, D. Kudenko (2007). "Dynamic Generation of Dilemma-based Interactive Narratives", *Artificial Intelligence and Interactive Entertainment (AIIDE)*.
70. E. Ridge, D. Kudenko (2007). "An Analysis of Problem Difficulty for a Class of Optimisation Heuristics", *Seventh European Conference on Evolutionary Computation in Combinatorial Optimization (EvoCOP)*.
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