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School of Computer Science, University of Birmingham,
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Profile

Researcher in Artificial Intelligence, Robotics, Machine Learning, and Machine Vision.
Leader of large research teams. Science communicator.

Experience

2013	Professor of Robotics & Artificial Intelligence, University of Birmingham
2011 - 2013	Reader, University of Birmingham
2005 - 2011	Senior Lecturer, University of Birmingham
2006 - 2008	Leverhulme Research Fellow
1997 - 2005	Lecturer, University of Birmingham

Education

1997	Ph.D Artificial Intelligence, University of Edinburgh
1992	MSc Knowledge Based Systems, University of Sussex
1990	BA Theology & Religious Studies, University of Bristol

Research Grants

2015-2016	Jeremy L Wyatt, Jeremy Hadall, Laura Justham, EuRoC, FP7-ICT-608849, €170,000.
2013-2016	Jeremy L Wyatt (Project Coordinator), Ales Leonardis "PaCMan: Probabilistic and Compositional Representations of Objects for Robotic Manipulation", €1,451,962. FP7-2011-9-IST-600918.
2013-2017	Nick Hawes, Jeremy L Wyatt "Strands: Spatial-Temporal Representations and Activities For Cognitive Control in Long-Term Scenarios", €1,591,518. FP7-2011-IST-600623.

- 2013 Guidance Navigation Ltd, " Novel Dynamic Vehicle Scheduling and Path Planning Algorithms for Mobile Robotic and AGV Warehouse Order Picking", Total value £155,263, UoB (Hawes, Wyatt) subcontracted for £39,900. TSB Smart Award.
- 2012-2015 Chris Miall, Alan Wing, Orna Rosenthal, Jeremy L Wyatt, "Performance-based selective training for robot-mediated upper limb motor learning and stroke rehabilitation", £400,382, MRC MR/J012610/1.
- 2010-2013 Richard Dearden & Jeremy L Wyatt, "GeRT: Generalising Robotic Manipulation Tasks", €908k. FP7-2009-IST-248273.
- 2008-2011 Andrew Schofield and Jeremy L Wyatt "Estimating the intrinsic characteristics of real images to aid analysis", EPSRC EP/F026269/1. £384,237.
- 2009-2011 Jeremy L Wyatt, Ravi Balaraman, Richard Dearden, "Reinforcement Learning of Visual Routines for Autonomous Systems", UKIERI, £9,658.
- 2008-2011 Richard Dearden and Jeremy L Wyatt, "Automated Diagnosis for Fault Detection, Identification and Recovery in Autosub6000", NERC, NE/F01256X/1, £374,621
- 2008-2011 Gavin Brown, Tim Kovacs, Jeremy L Wyatt, "ADEPT: Adaptive Dynamic Ensemble Prediction Techniques", £12,347, EPSRC, EP/F025645/1.
- 2008-2012 Jeremy L Wyatt (Project Coordinator), Richard Dearden, and Aaron Sloman "CogX: Cognitive Systems that Self-Understand and Self-Extend", €1.82m, FP7-2007-ICT-215181. Overall project value €6.8m
- 2006-2008 Jeremy L Wyatt "Planning the gathering and processing of visual information in robots." Funded by: The Leverhulme Trust, £23,538, RF/9/2006/0235.
- 2004-2008 Jeremy L Wyatt, Aaron Sloman "Cognitive Systems for Cognitive Assistants. European Commission. Value: £619,334, FP6-2002-IST-2 Project Number 004250.
- 2004-2005 Jeremy L Wyatt: "Novel algorithms for efficient grid based evolution of robot controllers." Funded by: Royal Society. Value: £1,850.
- 2001-2003 Jeremy L Wyatt: "Integration of planning and learning in real robot tasks." Funded by: British Council / DAAD. Value: £2,750.

Awards

- 2010 Distinguished paper award at BCS-SGAI AI 2009.
- 2008 Distinguished paper award, Int Conf on Planning & Scheduling 2008
- 2007 First winner of the Head of School's award for Excellence in Teaching, School of Computer Science, University of Birmingham
- 2006 Leverhulme Trust Research Fellow
- 2004 Supervisor: BCS Distinguished Doctoral Dissertation by Gavin Brown
- 1996 Supervisor of Rank Xerox prize winning MSc dissertation by John Hoar on Reinforcement Learning in Robots

Media

- 2015 ITN News at 10, BBC Breakfast, Radio New Zealand.
- 2014 ITV National News, ITN News website, ABC (Australian National Radio), the Times, the Financial Times, the Daily Mail, the Helsinki Messenger, the Australian, Motherboard, Fox Business News, Simon Mayo Radio show on BBC Radio 2, BBC News Website, Horizon, Birmingham Mail, Irish Times, Reuters, the Institution of Mechanical Engineers magazine, and the Engineer.
- <2014 BBC World Service, BBC Worldwide, Austrian National TV Channel ORF, CBBC Newsround, El Mundo, BBC Children's Television, BBC West Midlands Today, The Professional Engineer, The Engineer, the Guardian, SAGA Radio, Radio West Midlands, Sky TV, BBC News 24.

Public Engagement

- 2016 TEDx talk, Rome
- 2014 Video lecture, "Robot Life: A Users' Manual", YouTube; Talk, Blue Coat School, Coventry; Public lecture as part of EU Robotics Week; Public lecture to British Science Festival; Robot building Event, Community day, University of Birmingham; Exhibitor at the Royal Academy of Engineering Annual Soiree; Meet the Scientist event at ThinkTank, Birmingham.
- 2013 Talk at Solihull School; Talk at Blue Coat School, Coventry; Meet the Robots event at ThinkTank Science Museum.
- 2012 Talk at Blue Coat School, Coventry; Talk at Cafe Scientifique Birmingham

2011	Talk at Blue Coat School, Coventry; Talk and demonstrations for Brain Awareness Week, ThinkTank
2010	Public lecture to British Science Festival
2009	Public lecture, National Space Centre, Leicester, UK
2006	Lecture to the Association for Science Education
2003	Christmas lecture on Robotics
2002-6	Schools events: Burnt Hill, St Thomas Aquinas, St Paul's Catholic School Milton Keynes, Regents Park Primary; Greenend College, Farnborough VI Form College, Solihull VI Form College
2000-6	Talks to CS summer schools for 14-16 yr olds
2001	Christmas lectures on robotics for four Birmingham schools

Policy Engagement

2015	Invited Talk to 100 business and government leaders, Aspen Institute Italia. A Western Renaissance: drivers and boundaries, Venice.
2015	Invitation to policy conference on Robotics and Autonomous Systems, Royal Society, London
2015	Invited talk to 140 business and government leaders, The Council of the United States and Italy, Venice
2015	Invited talk to 70 business leaders, Citibank, London
2014	Invited talk to 100 business and government leaders, Aspen Institute Italia, Turin
2014	Demonstration of robot manipulation to HRH Duke of Kent, at RAEng Summer Soiree
2012	Participant, Ministerial Round Table on Robotics and Autonomous Systems

Invited Talks & Seminars

2016	Keynote speaker, IRAS 2016, Lancaster
2015	Aspen Institute Italia, A Western Renaissance: drivers and boundaries, Venice; BMVA Technical Meeting; Coventry Branch BCS; Dagstuhl Meeting on Grasping & Manipulation under Uncertainty; NCSML Annual Summer School, Warwick University; Keynote speaker, ICIRA 2015, Portsmouth; University of Oxford; 25th Workshop of the Council of the United States and Italy; University of Bristol; University of Manchester; Coventry University; NETT Winter School, Imperial College London.

- 2014 Aspen Institute Italia, Manufacturing in 21st Century; BMVA Technical Meeting on Robotic Vision, London; King's College London; Workshop on Cognitive Humanoids, Humanoids 2014; University of Southern California; BMVA Technical Meeting on Vision, London; ISR, University Polytechnic Catalunya, Barcelona; Bristol Vision Institute, University of Bristol; Portsmouth University; 1st International Workshop on Intelligent Robot Assistants, Padova; Honda Research Institute Europe; University of Edinburgh
- 2013 Workshop on Internal Models in the Brain, Birmingham; Dagstuhl Seminar on Reinforcement Learning
- 2012 Workshop on Cognitive Assistive Systems, IROS 2012; ECAI Workshop on Learning for Interactive Systems; Middlesex University
- 2011 International Summer School on Pattern Recognition, Plymouth; University of Leicester; IIT Madras; Gatsby Computational Neuroscience Unit; University of Lincoln; University of Sheffield; University of Nottingham; University of Manchester; Speaker in Distinguished Seminar Series, University of Lancaster
- 2010 IEEE Symposium on Cognitive Robotics, Manchester; International Summer School on Pattern Recognition, Plymouth; CogSys II conference, Zurich. RobotCub symposium, Sestri Levante.
- 2009 Dagstuhl seminar 09341 on Robot Manipulation; IIT Madras; University of Birmingham; Honda Research Institute Europe, Offenbach; University of Bristol; Summer School on Robotics, University of Aberystwyth.
- <2009 EU ICT conference 2008, Lyon; EU ICT workshop 2008, Brunel; University of Edinburgh; University of Texas at Austin; University of Toronto; York University, Toronto; MIT AI Lab; MIT Media Lab; Rutgers University; University of Cambridge; University of Manchester; University of Bristol; University of York; Dagstuhl Seminar 06321; BCS/PAR International summer school on pattern recognition; Workshop on Reinforcement Learning, Neuchatel, Switzerland; International Workshop on Artificial Life, University of Aarhus, Denmark

Research Students

2004	Gavin Brown	Diversity in neural network ensembles 2004 CPHC/BCS Distinguished Dissertation
2006	Adrian Hartley	Variable state methods for learning with hidden state
2010	Marek Kopicki	Prediction in robotic manipulation
2011	Noel Welsh	Population based methods in learning
2011	Zeyn Saigol	Automated planning for hydrothermal vent prospecting using AUVs
2011	Damien Duff	Visual motion estimation and tracking of rigid bodies by physical simulation
2012	Funlade Sunmola	Model transfer in reinforcement learning
2013	Jose Nunez-Varela	Gaze control for visually guided manipulation
2013	Veronica Arriola-Rios	Learning to predict the behaviour of deformable objects
2015	Claudio Zito	Planning simultaneous perception and manipulation
Current	Vladislav Kramarev	Compositional hierarchies of 3D shape
Current	Rusen Aktas	Compositional hierarchies for 2D vision
Current	Ferdian Jovan	Understanding human behaviour
Current	Michael Matthew	Robot manipulation through optimisation
Current	Sean Bastable	Computer vision for jet engine modelling
Current	Ermano Arruda	Active perception in robot manipulation

Publications

BOOKS EDITED

1. Jeremy L Wyatt, Dean D Petters and David C Hogg, **From Animals to Robots and Back: Reflections on Hard Problems in the Study of Cognition**. Cognitive Systems Monographs Vol 22, Springer Verlag, 2014.
2. Henrik I Christensen, Geert-Jan M. Kruijff and Jeremy L Wyatt (Editors), **Cognitive Systems for Cognitive Assistants**, Springer Verlag, 2010.
3. Jeremy L Wyatt and John Demiris (Editors). **Advances in Robot Learning: Proceedings of the 8th European Workshop on Learning Robots**, Springer Verlag, Lecture Notes in AI 1812, 2000.

CHAPTERS IN BOOKS

4. Jeremy L Wyatt. The Rocky Road from Hume to Kant: Correlations and Theories in Robots and Animals. In Jeremy L Wyatt, Dean D. Petters and David C. Hogg (editors),

From Animals to Robots and Back: Reflections on Hard Problems in the Study of Cognition, pp.133-149. Cognitive Systems Monographs Vol 22, Springer Verlag, 2014.

5. Danijel Skocaj, Matej Kristan, Alen Vrecko, Ales Leonardis, Mario Fritz, Michael Stark, Bernt Schiele, Somboon Hongeng and Jeremy L Wyatt. Multi-modal Learning. In Henrik I. Christensen and Geert-Jan M. Kruijff and Jeremy L. Wyatt (editors) Cognitive Systems, volume 8 of Cognitive Systems Monographs, pages 265--309, Springer Berlin Heidelberg. April 2010.

6. Nick Hawes, Jeremy L Wyatt, Mohan Sridharan, Marek Kopicki, Somboon Hongeng, Ian Calvert, Aaron Sloman, Geert-Jan Kruijff, Henrik Jacobsson, Michael Brenner, Danijel Skocaj, Alen Vrecko, Nikodem Majer and Michael Zillich. The PlayMate System. In Henrik I. Christensen and Geert-Jan M. Kruijff and Jeremy L. Wyatt (editors) Cognitive Systems, volume 8 of Cognitive Systems Monographs, pages 367--393, Springer Berlin Heidelberg. April 2010.

7. Nick Hawes, Jeremy L Wyatt, Mohan Sridharan, Henrik Jacobsson, Richard Dearden, Aaron Sloman and Geert-Jan Kruijff. Architecture and Representations. In Henrik I. Christensen and Geert-Jan M. Kruijff and Jeremy L. Wyatt (editors) Cognitive Systems, volume 8 of Cognitive Systems Monographs, pages 51--93, Springer Berlin Heidelberg. April 2010.

8. Noel Welsh and Jeremy L Wyatt, United We Stand: Population Based Methods for Solving Unknown POMDPs, in Recent Advances in Reinforcement Learning, LNCS 5323, pp.243-252, 2009.

9. Somboon Hongeng and Jeremy L Wyatt, Learning Causality and Intentional Actions, in Towards Affordance Based Robot Control, LNCS 4760, pp27-46, 2008.

10. Jeremy L Wyatt, Yoshiyuki Matsumura, and Matthew Todd, Learning in Robot Teams, in Teamwork: Multidisciplinary Perspectives, edited by Natalie Gold, pp.236–251, Palgrave MacMillan, 2004.

11. Jeremy L Wyatt, Reinforcement Learning: a brief overview, Perspectives on Adaptivity and Learning, I.O. Stamatescu et al. (Eds.), pp.243–264, Springer, 2002.

ARTICLES IN JOURNALS

12. Marc Hanheide, Moritz Gobelbecker, Graham S Horn, Andrzej Pronobis, Kristoffer Sjøo, Alper Aydemir, Patric Jensfelt, Charles Gretton, Richard Dearden, Miroslav Janicek, Hendrik Zender, Geert-Jan Kruijff, Nick Hawes, Jeremy L Wyatt. Robot Task Planning and Explanation in Open and Uncertain Worlds. **Artificial Intelligence Journal**, online first, [dx.doi.org/10.1016/j.artint.2015.08.008](https://doi.org/10.1016/j.artint.2015.08.008), August 2015.

13. Marek Kopicki, Renaud Detry and Jeremy L Wyatt. One Shot Learning and Generation of Dextrous Grasps for Novel Objects. **International Journal of Robotics Research**, online first, <http://ijr.sagepub.com/content/early/2015/09/15/0278364915594244.full>, Sept 2015.

14. Shiqi Zhang, Mohan Sridharan and Jeremy L Wyatt. Integrating Probabilistic Graphical Models and Non-monotonic Logical Inference for Robots. **IEEE Transactions on Robotics** 31(3):699-713, July 2015.
15. Danijel Skocaj, Jeremy L Wyatt et al. An integrated system for interactive continuous learning of categorical knowledge. In press, **Journal of Experimental & Theoretical Artificial Intelligence**, 2015.
16. Jose Nunez, Jeremy L Wyatt. Models of Gaze Control During Visually Guided Manipulation. **ACM Transactions on Applied Perception**, 10(4):Article 20, October 2013.
17. Jeremy L Wyatt, Alper Aydemir, Michael Brenner, Marc Hanheide, Nick Hawes, Patric Jensfelt, Matej Kristan, Geert-Jan M. Kruijff, Pierre Lison, Andrzej Pronobis, Kristoffer Sjo, Danijel Skocaj, Alen Vrecko, Hendrik Zender, Michael Zillich, Self-Understanding & Self-Extension: A Systems and Representational Approach, in **IEEE Transactions on Autonomous Mental Development**, 2(4):282-303, December 2010.
18. Mohan Sridharan, Jeremy L Wyatt and Richard Dearden, Planning to See: Hierarchical POMDPs for Planning Visual Actions on a Robot, **Artificial Intelligence Journal**, 174(11):704–725, July 2010.
19. Nick Hawes and Jeremy L Wyatt, Engineering Intelligent Information-Processing Systems with CAST, **Advanced Engineering Informatics**, 24(1):27-39, January 2010
20. Nick Hawes, Jeremy L Wyatt and Aaron Sloman, Exploring design space for an integrated intelligent system, **Knowledge-Based Systems**, 22(7), pp. 509–515, Elsevier, 2009. Published as a best paper from 28th SIGAI Conference.
21. P Ritthipravat, T Maneewarn, J.L. Wyatt, D Laowattana. Fuzzy-Q Knowledge Sharing Techniques with Expertness Measures: Comparison and Analysis. **Computer Science: Theory and Applications**, pp.544-554, 2006.
22. P Ritthipravat, T Maneewarn, J.L. Wyatt, D Laowattana. Comparison and Analysis of Expertness Measure in Knowledge Sharing Among Robots. **Advances in Applied Artificial Intelligence**, pp.60-69, 2006.
23. Gavin Brown, Jeremy L Wyatt and Peter Tino, Managing Diversity in Regression Ensembles, **Journal of Machine Learning Research**, 6:1621-1650, 2005.
24. Gavin Brown, Rachel Harris, Jeremy L Wyatt, Xin Yao, Diversity creation methods: a survey and categorisation , to appear in **Information Fusion Journal** (Special issue on Diversity in Multiple Classifier Systems), edited by Ludmilla I. Kuncheva, Vol 6(1):5–20, Elsevier, 2004.
25. Jeremy L Wyatt, John Hoar and Gillian Hayes, Design, analysis and comparison of robot learners, accepted for publication in **Robotics and Autonomous Systems: Special Issue on quantitative methods in mobile robotics**, Ulrich Nehmzow, Michael Recce and David Bisset (eds), 24(1-2):17–32, 1998.

REFEREED CONFERENCE PUBLICATIONS

26. M. Ozay, U.R. Aktas, A. Leonardis, J. Wyatt. Compositional Hierarchical Representation of Shape Manifolds for Classification of Non-manifold Shapes. To appear in Proceedings of IEEE International Conference on Computer Vision (**ICCV 2015**), IEEE, December 2015.
27. S. Zhang, M. Sridharan, M. Gelfond, J.L. Wyatt. Towards an architecture for knowledge representation and reasoning in robotics. In Proceedings of the International Conference on Social Robotics (**ICSR 14**), LNAI 8755, pp.400-401, Springer, 2014.
28. Dominik Belter, Marek Kopicki, Sebastian Zurek, Jeremy L Wyatt. Kinematically Optimised Predictions of Object Motion. In Proceedings of IEEE International Conference on Intelligent Robots and Systems (**IROS 2014**), pp.4422-4427, 2014.
29. U.R. Aktas, M. Ozay, A. Leonardis, J.L. Wyatt. A Graph Theoretic Approach for Object Shape Representation in Compositional Hierarchies Using a Hybrid Generative-Descriptive Model. Proceedings of the European Conference on Computer Vision (**ECCV 2014**), pp.566-581, Springer, 2014.
30. Vladislav Kramarev, Sebastian Zurek, Jeremy L Wyatt and Ales Leonardis, Object Categorization from Range Images using a Hierarchical Compositional Representation. In Proceedings of 22nd International Conference on Pattern Recognition (**ICPR 2014**), pp. 586-591, 2014.
31. Marek Kopicki, Renaud Detry, Florian Schmidt, Christoph Borst, Rustam Stolkin, and Jeremy L Wyatt, Learning Dexterous Grasps That Generalise To Novel Objects By Combining Hand And Contact Models. In Proceedings of IEEE International Conference on Robotics and Automation (**ICRA 2014**), pp.5358-5365, IEEE, June 2014.
32. Claudio Zito, Marek S. Kopicki, Rustam Stolkin, Christoph Borst, Florian Schmidt, Maximo A. Roa and Jeremy L Wyatt. Sequential Trajectory Re-planning with Tactile Information Gain for Dexterous Grasping under Object-pose Uncertainty. In Proceedings of IEEE International Conference on Intelligent Robotics and Systems (**IROS 2013**), pp. 4013-4020, IEEE, 2013.
33. Claudio Zito, Rustam Stolkin, Marek Sewer Kopicki, Jeremy L Wyatt. Two-level RRT Planning for Robotic Push Manipulation. In Proceedings of IEEE International Conference on Intelligent Robotics and Systems (**IROS 2012**), pp.678-685, IEEE, October 7-12 2012.
34. Jose Nunez-Varela, Balaraman Ravindran, Jeremy L Wyatt. Gaze Allocation Analysis for a Visually Guided Manipulation Task. In From Animals to Animats 12: Proceedings of the **International Conference on the Simulation of Adaptive Behaviour (SAB)**, pp. 44-53, 2012.

35. Jose Nunez-Varela, B. Ravindran, Jeremy L Wyatt. Where Do I Look Now? Gaze Allocation During Visually Guided Manipulation. In Proceedings of IEEE International Conference on Robotics and Automation (**ICRA 2012**), pp. 4444-4449, DOI 10.1109/ICRA.2012.6225226. IEEE, 2012.
36. Marek Kopicki, Sebastian Zurek, Rustam Stolkin, Thomas Mörwald and Jeremy L Wyatt . Learning to predict how rigid objects behave under simple manipulation. In Proceedings of the IEEE International Conference on Robotics and Automation (**ICRA 2011**), pp.5722-5729, IEEE, 2011.
37. Thomas Mörwald, Marek Kopicki, Rustam Stolkin, Jeremy L Wyatt, Sebastian Zurek, Michael Zillich and Markus Vincze. Predicting the Unobservable, Visual 3D Tracking with a Probabilistic Motion Model. In Proceedings of the IEEE International Conference on Robotics and Automation (**ICRA 2011**), pp.1849-1855, IEEE, 2011.
38. Marc Hanheide, Charles Gretton, Richard Dearden, Nick Hawes, Jeremy L Wyatt, Andrzej Pronobis, Alper Aydemir, Moritz Golbelbecker and Hendrik Zender. Exploiting probabilistic knowledge under uncertain sensing for efficient robot behaviour. In Proceedings of the 22nd International Joint Conference on Artificial Intelligence (**IJCAI'11**), pp.2442-2449, July 2011.
39. Damien Jade Duff, Thomas Morwald, Rustam Stolkin and Jeremy L Wyatt. Physical simulation for monocular 3D model based tracking. In IEEE International Conference on Robotics and Automation 2011 (**ICRA 2011**), pp.5218-5225, IEEE, 2011.
40. Xiaoyue Jiang, Andrew J. Schofield, Jeremy L Wyatt. Shadow Detection based on Colour Segmentation and Estimated Illumination. In Jesse Hoey, Stephen McKenna and Emanuele Trucco, Proceedings of the British Machine Vision Conference (**BMVC 2011**), pp. 87.1-87.11. BMVA Press, September 2011. <http://dx.doi.org/10.5244/C.25.87>.
41. Xiaoyue Jiang, Andrew J. Schofield, Jeremy L Wyatt, Correlation-based Intrinsic Image Extraction from a Single Image, in Proceedings of the European Conference on Computer Vision (**ECCV 2010**), Vol IV, pp.58–71, 2010.
42. Damien J. Duff, Jeremy L Wyatt and Rustam Stolkin, Motion Estimation Using Physical Simulation, to appear in Proceedings of International Conference on Robotics and Automation 2010 (**ICRA 2010**), Anchorage, Alaska, May 3-8 2010.
43. Zeyn A. Saigol, Richard W. Dearden, Jeremy L. Wyatt, Bramley J. Murton, Information-Lookahead Planning for AUV Mapping, in Proceedings of the 21st International Joint Conference on Artificial Intelligence 2009, **IJCAI-09**, pp.1831-1836, 2009.
44. Mohan Sridharan, Jeremy L Wyatt and Richard Dearden. HiPPo: Hierarchical POMDPs for Planning Information Processing and Sensing Actions on a Robot. In International Conference on Automated Planning and Scheduling (**ICAPS 2008**). pp. 346-354, September 2008. **Distinguished paper award.**

45. Henrik Jacobsson, Nick Hawes, Geert-Jan Kruijff and Jeremy L Wyatt. Crossmodal Content Binding in Information-Processing Architectures. In Proceedings of the 3rd ACM/IEEE International Conference on Human-Robot Interaction (**HRI '08**), pp. 81–88, ACM. March 2008.
46. Nick Hawes, Michael Zillich and Jeremy L Wyatt. BALT & CAST: Middleware for Cognitive Robotics. In Proceedings of **IEEE RO-MAN '07**, pp. 998–1003, IEEE. August 2007.
47. Nick Hawes, Aaron Sloman, Jeremy L Wyatt, Michael Zillich, Henrik Jacobsson, Geert-Jan Kruijff, Michael Brenner, Gregor Berginc, Danijel Skocaj . Towards an Integrated Robot with Multiple Cognitive Functions. In Proceedings of **AAAI '07**, pp. 1548–1553 . July 2007.
48. Michael Brenner, Nick Hawes, John Kelleher and Jeremy L Wyatt. Mediating Between Qualitative and Quantitative Representations for Task-Orientated Human-Robot Interaction. In Manuela M. Veloso (editor) **IJCAI 2007**, Proceedings of the 20th International Joint Conference on Artificial Intelligence, pp. 2072–2077. January 2007.
49. S. Hongeng and J. L. Wyatt. Learning Causality and Intention in Human Actions. In Proceedings of the 6th IEEE-RAS International Conference on Humanoid Robots (**IEEE Humanoids**), IEEE, pp. 62–68. December 2006.
50. G. Brown and J.L. Wyatt, The Use of the Ambiguity Decomposition in Neural Network Ensemble Learning Methods, in Proceedings of the 20th International Conference on Machine Learning (**ICML'03**), pp.67–74, Edited by Tom Fawcett and Nina Mishra, 2003.
51. Jeremy L Wyatt, Exploration Control in Reinforcement Learning Using Optimistic Model Selection, Proceedings of the Eighteenth International Conference on Machine Learning (**ICML-2001**), edited by A.Danyluk and C.Brodley, pp.593–600, 2001.
52. Zoe P. Demery, Veronica Arriola-Rios, Aaron Sloman, Jeremy L Wyatt, Jackie Chappell. Construct to Understand: Learning through Exploration. In Proceedings of the International Symposium on AI-Inspired Biology (**AISB 2013**), pp. 59–61, 2013.
53. Vero Arriola-Rios and Jeremy L Wyatt. 2D Mass-spring-like Model for Prediction of a Sponge's Behaviour upon Robotic Interaction. To appear in **AI-2011** Thirty-first SGAI International Conference on Artificial Intelligence, Cambridge, UK, December, 2011.
54. Zeyn A Saigol, Richard W Dearden, Jeremy L Wyatt and Bramley J Murton, Belief Change Maximisation for Hydrothermal Vent Hunting Using Occupancy Grids, in Proceedings of the 11th Conference Towards Autonomous Robotic Systems (**TAROS-10**), September 2010.
55. Zeyn Saigol, Frédéric Py, Kanna Rajan, Conor McGann, Jeremy L Wyatt and Richard Dearden, Randomized Testing for Robotic Plan Execution for Autonomous Systems, in Proceedings of 2010 IEEE/OES Autonomous Underwater Vehicles (**AUV2010**), September 2010.

56. M. Kopicki, J.L. Wyatt, R. Stolkin. Prediction learning in robotic pushing manipulation. In IEEE International Conference on Advanced Robotics, 2009 (**ICAR 2009**), pp.1–6, 2009.
57. Stark, M., P. Lies, M. Zillich, J.L. Wyatt and B. Schiele: Functional Object Class Detection Based on Learned Affordance Cues. Computer Vision Systems: 6th International Conference (**ICVS 2008**), pp.435–444. (Eds.) Gasteratos, A., M. Vincze, J. K. Tsotsos, Springer, Berlin, Germany, 2008.
58. F. Sunmola and J.L. Wyatt. Reinforcement Learning using Optimistic Process Filtered Models. In Proceedings of **Benelearn'05**, Proceedings of the Fourteenth Annual Machine Learning Conference of Belgium and the Netherlands M. van Otterlo, M. Poel, A. Nijholt (eds.), pp.97–104, 2005.
59. G. Brown, J.L. Wyatt & P. Sun. Between Two Extremes: Examining Decompositions of the Ensemble Objective Function. In Proc. Int. Workshop on Multiple Classifier Systems (**MCS 2005**, LNCS 3541), edited by Oza, N.C.; Polikar, R.; Kittler, J.; Roli, F., pp. 296–305, Springer, 2005.
60. Panrasee Ritthipravat, Thavida Maneewarn, Djitt Laowattana and Jeremy L Wyatt. A Modified Approach to Fuzzy Q Learning for Mobile Robots. In Proceedings of **IEEE SMC 2004**, International Conference on Systems, Man and Cybernetics, pp. 2350–2356. 2004.
61. Arthur Braga, Aluizio Araujo, and Jeremy L Wyatt, Incremental Topological Reinforcement Learning Agent in Non-Structured Environments, in Proceedings of **IEEE SMC 2004**, International Conference on Systems, Man and Cybernetics, pp.5567–5572, 2004.
62. Y. Matsumura, N. Fujimoto, X. Yao, J.L. Wyatt and K.Hagihara. Evolution Strategies on Grid Computing. In China-Japan Joint Conference on Mechatronics (**CJCM**), CJ-H2, pp. 105--106. 2004.
63. Y. Matsumura, N. Fujimoto, X. Yao, J.L. Wyatt and K.Hagihara. Near-Optimal Dynamic Grid Task Scheduling of Evolution Strategies. In 4th International Conference on Advanced Mechatronics (**ICAM 04**), pp.175–180. 2004.
64. Y. Matsumura, X. Yao, J. L. Wyatt, K. Ohkura and K. Ueda, Robust Evolution Strategies Applied to Continuous-Time Recurrent Neural Networks, Proc of the 2nd International Conference on Computational Intelligence, Robotics and Autonomous Systems (**CIRAS 2003**), pp.PS07-3-03, 2003.
65. A. Grossmann, M. Wendt, and J.L. Wyatt, A Semi-supervised Method for Learning the Structure of Robot Environment Interaction, in Proceedings of the 5th International Symposium on Intelligent Data Analysis (**IDA 2003**), pp.36–47, Springer Verlag, 2003.
66. Gavin Brown and Jeremy L Wyatt, Negative Correlation Learning and The Ambiguity Family of Ensemble Methods, 4th International Workshop on Multiple Classifier Systems (**MCS 2003**, LNCS 2509), pp.266–275, Guildford, UK, June 2003.

67. Hector Montes and Jeremy L Wyatt. Cartesian Genetic Programming for Image Processing Tasks. In Proceedings of IASTED International Conference on Neural Networks and Computational Intelligence (**NCI 2003**), edited by O. Castillo, pp.185–190, 2003.
68. Gavin Brown, Xin Yao, Jeremy L Wyatt, Heiko Wersing and Bernhard Sendhoff, Exploiting Ensemble Diversity for Automatic Feature Extraction 9th International Conference on Neural Information Processing, (**ICONIP 2002**) pp.1786–1790, Singapore, 2002.
69. J. Hoar, J. Wyatt and G. Hayes. Multiple Evaluation Techniques for Robot Learning. In 10th International Florida AI research symposium (**FLAIRS 97**). pp.267–271, 1997.

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70. Marek Kopeck and Jeremy L. Wyatt. One shot contact learning. **RSS 2015 Workshop** Bridging the Gap between Data-driven and Analytical Physics-based Grasping and Manipulation. www.csc.kth.se/rss2015workshop/MarekKopickiRSS2015ws.pdf , July 2015.
71. Mohan Sridharan, Michael Gelfond, Shiqi Zhang and Jeremy L Wyatt. Mixing Non-Monotonic Logical Reasoning and Probabilistic Planning for Robots. Workshop on Hybrid Reasoning, **IJCAI 2015 Workshop**. www.hybrid-reasoning.org/media/filer/2015/07/15/hr_2015_submission_9.pdf
72. Shiqi Zhang, Mohan Sridharan, Michael Gelfond and Jeremy L Wyatt . Integrating Declarative Programming and Probabilistic Graphical Models for Knowledge Representation and Reasoning in Robotics. In proceedings of **ICAPS Workshop** on Planning and Robotics (PlanRob), Portsmouth, USA June 22-23, 2014.
73. Shiqi Zhang, Mohan Sridharan, Michael Gelfond, and Jeremy L. Wyatt. KR3: An Architecture for Knowledge Representation and Reasoning in Robotics. In **NMR 2014**, 15th International Workshop on Non-Monotonic Reasoning 17-19 July 2014, Vienna.
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