
Simon Dominic Parsons

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Nationality: British (US Permanent Resident)

Qualifications: Ph.D. Computer Science, University of London, 1993.
M.Sc. Computer Science, University of London, 1989.
B.A. (Hons) Engineering, University of Cambridge, 1988.

Awards:

Technical Innovation Award, Robotics Competition and Exhibition, 21st National Conference on Artificial Intelligence (AAAI), 2006.

Best Paper Award Finalist, 2nd International Conference on Autonomous Agents and Multi-Agent Systems, 2003.

Best Paper Award Winner, 14th Belgian-Dutch Conference on Artificial Intelligence, 2002.

IEE Achievement Medal, Younger Engineers Award, in Informatics, 1998.

Appointments held:

January 2007 – present

Professor, Department of Computer and Information Science at Brooklyn College of the City University of New York.

September 2002 – December 2006

Associate Professor, Department of Computer and Information Science at Brooklyn College of the City University of New York.

September 2002 – present

Visiting Professor, Department of Computer Science at the University of Liverpool.

January 2002 – September 2002

Visiting Scholar, Sloan School of Management at MIT.

Adjunct Professor, Department of Computer Science at Columbia University.

January 2000 – December 2001

Reader, Department of Computer Science at the University of Liverpool.

September 1995 – December 1999

Lecturer, Department of Electronic Engineering at Queen Mary and Westfield College, University of London.

March 1995 – September 1995

Research Fellow, Department of Electronic Engineering at Queen Mary and Westfield College, University of London.

April 1993 – February 1995

Research Fellow at Imperial Cancer Research Fund (now Cancer Research UK), London.

September 1989 – March 1993

Research Assistant, Department of Electronic Engineering at Queen Mary and Westfield College, University of London.

Students and Grants

Research Funding Secured:

Total to date \$7,127,076.

- **NSF** (September 2009 – August 2012) (in collaboration with Professor E. Sklar) MetroBotics: undergraduate robot research at an urban public college, \$345,000.
- **NSF** (September 2008 – August 2010) (in collaboration with Professor S. Tejada and Professor J. Janone) “Mixed reality without tears: Tools to support creativity in mixed-reality applications”, \$212,061.
- **NSF** (July 2007 – June 2012) (in collaboration with Professor W. Powell, Professor L. Hainline, and Professor M. Tomkiewicz) “GK12: City as lab”, \$3,000,000.
- **Liverpool University/EPSRC** (September 2006 – September 2007) “Market design game”, \$47,588.
- **NSF** (March 2006 – March 2009) (in collaboration with Professor E. Sklar, Professor I Rudowsky and Professor S. Chopra) “BPC: Building a bridge in Brooklyn”, \$500,000.
- **NSF** (September 2005 – August 2008) (in collaboration with Professor F. Grasso and Professor T. Raphan) “Acquisition of a bipedal robot facility”, \$212,625.
- **CUNY Collaborative** (September 2005 – August 2007) (in collaboration with Professor T. Raphan and Professor Jizhong Xiao) “Biomimetic approaches to quadrupedal robot locomotion”, \$60,000.
- **NSF** (September 2004 – August 2007) (in collaboration with Professor L. Scarlatos and Professor J. Jannone) “CAVE for experiments in the creation of collaborative learning”, \$299,750.
- **EC/IST** (January 2004 – December 2006) (in collaboration with Professor M. Wooldridge and Dr. P. McBurney) “Argumentation service platform with integrated components”, \$274,000.
- **NSF** (September 2003 – September 2008) (in collaboration with Professor E. Sklar), “Tools and techniques for automated mechanism design”, \$559,703.
- **Columbia University/NIH** (September 2003 – September 2004) “Discovering and applying knowledge in clinical databases”, \$10,000.
- **NSF** (August 2002 – August 2005) (in collaboration with Professor E. Sklar), “Evaluating education—What are we measuring and how?”, \$356,552.
- **MIT/Hewlett-Packard** (August 2002 – December 2002) “Always on”, \$50,000.
- **One2One** (August 2001 – March 2002), “Analysis of usage data”, \$21,000.
- **EPSRC** (July 2001 – June 2004) (in collaboration with Professor M. Wooldridge), “Verifiable languages and protocols for multi-agent systems”, \$196,000.
- **Liverpool University** (in collaboration with Professor M. Wooldridge), “Control of reasoning in uncertain environments”, \$56,000.
- **HSE** (July 2000 – August 2001), “Validation techniques for risk audit methodologies”, \$70,000.
- **EC/IST** (April 2000 – March 2003), “Sustainable lifecycles for information ecosystems”, \$224,000.
- **EPSRC** (October 1999 – October 2002) (in collaboration with Dr J. Bigham and Professor L. Cuthbert), “Strategic resource management”, \$245,000.

- **EC/ACTS** (July 1999 – May 2000), “Multi-agent architecture for distributed-IN load control and overload protection”, \$74,200.
- **EPSRC** (February 1999 – September 2002) (in collaboration with Professor M. Wooldridge and Professor N. Jennings), “Practical negotiation for electronic commerce”, \$243,600.
- **EPSRC** (March 1998 – March 2001), “Qualitative methods for reasoning under uncertainty”, \$70,000.

Research student supervision:

Current:

- Kai Cai.
- Todd Flyr.
- Marek Marcinkiewicz.
- Jinzhong Niu.
- Alex Sverdlov.
- Suzanne Tamang.
- Yuqing Tang.

Successfully completed:

- Rachel Bourne.
- Peter McBurney.
- Steve Phelps.
- Christiana Panayiotou.

Invited Talks and Courses

Invited Plenary Talks:

- *Auctions, evolution & multi-agent learning*, Adaptive Learning Agents and Multi-Agent Systems, Maastricht, April 2007.
- *Fuzzy sets and possibility theory*, NIA Workshop on Uncertainty Characterization in Early-Phase Design, June 2004.
- *Semantic distance and qualitative probability*, NIST Workshop on Semantic Distance, November 2003.
- *Argumentation and dialogue*, 5th Dutch German Workshop on Nonmonotonic Reasoning Techniques and their Applications, April 2001.
- *Rational action*, Workshop on Soft Computing, September 2000.
- *Argumentation and decision making*, Workshop on “Computational Dialectics: Argumentation, negotiation and decision making” at the European Conference on Artificial Intelligence, August 2000.
- *Game theoretic and decision theoretic agents*, Workshop on “Multi-agent Learning: Theory and practice” at the International Conference on Machine Learning, July 2000.
- *Intelligent systems for reasoning about future scenarios and risk*, Scenario Planning for Competitive Advantage, October 1999.
- *Argumentation and decision making*, IEE Symposium on Decision Making and Problem Solving, December 1997.
- *Rough set theory*, Landmark Technology Forum, February 1997.

Invited Courses:

- *Rational action in autonomous agents*, Universidad Politecnica de Catalunya, March 2001, March 2002.
- *Rational action in autonomous agents*, Expert Systems 2000, Expert Systems 2001.
- *Classical and non-classical decision theory*, Universidad Nacional del Sur, Argentina, August 1999.

Tutorials:

- *Robotics for beginners*, National Conference on Artificial Intelligence (AAAI) 2005, European Agent Systems Summer School 2005.
- *Rational action in autonomous agents*, International Conference on Autonomous Agents and Multi-Agent Systems 2002, 2003.
- *Robotics for beginners*, International Conference on Autonomous Agents and Multi-Agent Systems 2003.
- *Rational action in autonomous agents*, National Conference on Artificial Intelligence (AAAI) 2002.
- *Rational action in autonomous agents*, Autonomous Agents 2001.
- *Rational action in autonomous agents*, European Conference on Artificial Intelligence 2000.

US Seminars:

- *Steps towards automated mechanism design*, University of Michigan, Ann Arbor, March 2007.
- *Educational robotics*, Vassar College, Poughkeepsie, November 2005.
- *Are agent-based systems the future of computer science?*, State University of New York, New Paltz, February 2005.
- *Argument-based interactions between intelligent agents*, Washington University in St Louis, April 2004.
- *Coevolutionary mechanism design*, Columbia University, December 2002.
- *Argumentation and decision making*, University of Kansas, November 2002.
- *On formal models of inter-agent dialogues*, Harvard University, May 2002.
- *On formal models of inter-agent dialogues*, Brandeis University, November 2001.
- *Modelling dialogue using argumentation*, ATT Labs, September 2001.
- *Building executable agents using multi-context systems*, University of Connecticut, July 2000.
- *Argumentation and decision making*, Colorado State University, March 1998.

United Kingdom Seminars:

- *Games for agent dialogues*, University of York, June 2001.
- *Argumentation and dialogue*, University of Essex, May 2001.
- *Argumentation and dialogue*, Imperial College, January 2001.
- *Building executable agents using multi-context systems*, Edinburgh University, March 2000.
- *Negotiation through argumentation*, City University, March 1999.
- *Negotiation through argumentation*, Open University, October 1998.
- *Negotiation through argumentation*, Manchester Metropolitan University, July 1998.
- *Negotiation through argumentation*, Imperial College, July 1998.

International Seminars:

- *Degrees of belief in BDI agents*, Spanish National AI Research Centre, January 1999.

Service Record

Editorships, Editorial Boards:

- *Knowledge Engineering Review*
1998 – present: Editor.
1996 – 1998: Associate Editor.
- *Journal of Artificial Intelligence Research*
2008 – present: Editorial Board.
- *Journal of Autonomous Agents and Multi-Agent Systems*
2003 – present: Editorial Board.
- *Conference on Autonomous Agents*
2004 – 2006: Steering Committee.
- *International Foundation on Autonomous Agents and Multiagent Systems*
2007 – present: Secretary
2006 – present: Board of Directors.
- *International Conference on Computational Models of Argument*
2006 – present: Steering Committee

Special Issues Edited:

- *Journal of Machine Learning Research*, Special Issue on *Knowledge Data Fusion*, 2003.
- *Journal of Decision Support Systems*, Special Issue on *Game Theoretic and Decision Theoretic Agents*, 2003.
- *International Journal of Autonomous Agents and Multi-Agent Systems*, Special Issue on *Game Theoretic and Decision Theoretic Agents*, 2002.
- *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, Special Issue on *Hybrid Probabilistic Systems*, 2000.

PhD Examiner:

- CNRS, Université Paris Dauphine, 2009.
- Departamento de Electrónica, Informática y Automática, Universitat de Girona, Spain, 2008.
- Department of Computer Science, City University of New York, 2004, 2005, 2006.
- Department of Biomedical Informatics, Columbia University, 2006, 2007.
- Department of Computer Science, University of Liverpool, 2001.
- Department of Computer Science and Information Sciences, University of Jyväskylä, Finland, 2001.

- Department of Computing and Mathematics, Manchester Metropolitan University, 2001.
- Department of Computer Science, University of Utrecht, The Netherlands, 2001.
- Division of Informatics, University of Edinburgh, 2000.
- Department of Engineering Science, University of Oxford, 1999.
- Department of Computer Science, Imperial College, London, 1998.
- Department of Computer Science, University College, London, 1998.
- Department of Mechanical Engineering, University College, London, 1998.
- Department of Computer Science, Imperial College, London, 1997.
- Department of Computer Science, Imperial College, London, 1996.

Consultancies:

- November 1999: Cellnet.
- February 1999: Teledesic LLC.
- January 1998 – December 1998: Redwing Consulting.
- April 1997 – March 1998: Imperial Cancer Research Fund.

Conference and Workshop Organisation:

- *National Conference on Artificial Intelligence (AAAI).*
2007, 2008: Workshop Chair.
2002, 2004, 2005, 2006, 2007: Program Committee.
- *International Conference on Autonomous Agents and Multi-Agent Systems.*
2008, General Co-chair
2005, 2006, 2011, Senior Program Committee.
2004: Local Organisation Chair.
2003: Workshop Chair.
2002, 2003, 2007, 2009, 2010: Program Committee.
- *International Joint Conference on Artificial Intelligence.*
2011, Senior Program Committee
- *ACM International Conference on Intelligent Agent Technology.*
2009, Program Co-chair
2003, 2004: Program Committee.
- *Uncertainty Track, Florida AI Research Society Conference.*
1999, 2000: Program Co-chair.
1998 – 2010: Program Committee.

- *European Conference on Symbolic and Quantitative Approaches to Reasoning and Uncertainty.*
2003: Area Chair.
1999: Workshop and Tutorial Chair.
1995, 1999, 2001, 2005, 2007, 2009: Program Committee.
- *Conference on Uncertainty in Artificial Intelligence.*
1994, 1995, 1997 – 2006: Program Committee.
- *European Conference on Artificial Intelligence*
2010: Program Committee.
- *Conference on Computational Models of Argument*
2006 – 2010: Steering Committee
- *International Conference on Intelligent Data Analysis.*
2005 – 2007: Program Committee.
- *International Conference on Autonomous Agents.*
2001: Publicity Chair.
1999 – 2001: Program Committee.
- *International Conference on Knowledge Representation and Reasoning.*
2002: Program Committee.
- *European Summer School on Logic, Language, and Information.*
2002: Program Committee.
- *International Conference on Electronic Commerce.*
2003: Program Committee.
- *International Conference on Machine Learning.*
2001: Program Committee.
- *Florida AI Research Society Conference.*
2002 – 2007: Program Committee.
- *Machine Learning Track, Florida AI Research Society Conference.*
2005 – 2007: Program Committee.
- *International Conference on Soft Computing.*
2002: Program Committee.
- *Argentine Symposium on Artificial Intelligence.*
2002: Program Committee.
- *Workshop on Decision Theoretic and Game Theoretic Agents.*
1999 – 2007: Program Co-chair.
- *Workshop on Argumentation in Multi-Agent Systems*
2004 – present; Steering Committee
2005, 2006, 2009, 2010: Program Co-chair

- *Workshop on Agent-Mediated Electronic Commerce*
2007: Organising Committee
2004, 2006, 2008, 2009, 2010: Program Committee
- *Workshop “Adventures in Argumentation”* at the 2001 European Conference on Symbolic and Quantitative approaches to Reasoning and Uncertainty.
Program Co-chair.
- *Workshop on Knowledge and Data Fusion* at the 2000 Conference on Uncertainty in Artificial Intelligence.
Program Co-chair.
- *Workshop on Practical Reasoning and Rationality* at the 1997 AISB Workshop series.
Program Co-chair.
- *Workshop on Uncertainty in Information Systems* at the 1996 European Conference on Artificial Intelligence.
Program Co-chair.
- *Workshop on Agent Communication*
2003, 2004, 2006: Program Committee
- *Workshop on Trading Agent Design and Analysis*
2006, 2007: Program Committee
- *International Workshop on Model-based and Qualitative Reasoning in Biomedicine* at the European Conference on Artificial Intelligence in Medicine.
2003: Program Committee.
- *International Workshop on Conditionals, Information and Inference.*
2002: Program Committee.
- *International Workshop on Agent Theories, Architectures and Languages.*
2001: Program Committee.
- *United Kingdom Workshop on Multi-Agent Systems.*
2001, 2002: Program Committee.
- *Workshop on Bayesian and Causal Networks: From inference to data mining* at the European Conference on Artificial Intelligence.
2000, 2002: Program Committee.
- *Workshop on Computational Models of Natural Argument* at the 2003 International Joint Conference on Artificial Intelligence.
Program Committee.
- *Workshop on Computational Models of Natural Argument* at the 2002 European Conference on Artificial Intelligence.
Program Committee.
- *Workshop on Computational Dialectics: Argumentation, negotiation, and decision making* at the 2000 European Conference on Artificial Intelligence.
Program Committee.
- *Workshop on Agents for Industry* at the 2000 International Conference on Autonomous Agents.
Program Committee.

- *Workshop on Agents in Healthcare* at the 2001 International Conference on Autonomous Agents. Program Committee.
- *Workshop on Agents and Internet Learning* at the 2001 International Conference on Autonomous Agents. Program Committee.

Reviewing for Journals

- Artificial Intelligence;
- Journal of Artificial Intelligence Research;
- International Journal of Autonomous Agents and Multi-Agent Systems;
- Journal of Logic and Computation;
- Studia Logica;
- IEEE Transactions on Systems, Man and Cybernetics;
- Annals of Mathematics and Artificial Intelligence;
- International Journal of Approximate Reasoning;
- International Journal of Human Computer Studies;
- Fundamenta Informaticae;
- European Journal of Operations Research;
- Transactions of the Society for Modeling and Simulation;
- International Journal of Pattern Recognition and AI
- Knowledge-Based Systems;
- Data and Knowledge Engineering;
- Expert Systems; and
- Cognitive Science Quarterly.

Publications

Books

- McBurney, P., Rahwan, I., Parsons, S. and Maudet, N. (Editors) *Argumentation in Multi-agent Systems: Proceedings of the 6th International Workshop*, Lecture Notes in Artificial Intelligence 6057, Springer Verlag, 2010.
- Collins, J., Sklar, E., Shehory, O., Faratin, P., Sadeh, N., Parsons, S. and Rodriguez-Aguilar, J.-A. (Editors) *Agent-Mediated Electronic Commerce IX/Trading Agent Analysis and Design*, Lecture Notes in Artificial Intelligence, Springer Verlag, 2008.
- Rahwan, I., Parsons, S., and Reed, C. (Editors) *Argumentation in Multi-agent Systems: Fourth International Workshop*, Lecture Notes in Artificial Intelligence, Springer Verlag, 2008.
- Maudet, N., Parsons, S., and Rahwan, I. (Editors) *Argumentation in multi-agent systems: Third International Workshop*, Lecture Notes in Artificial Intelligence, Springer Verlag, 2007.
- Parsons, S., Maudet, N., Moraitis, P., and Rahwan, I. (Editors) *Argumentation in multi-agent systems: Second International Workshop*, Lecture Notes in Artificial Intelligence, Springer Verlag, 2006.
- Parsons, S., Gmytrasiewicz, P. and Wooldridge, M. J. (Editors) *Game theory and decision theory in agent-based systems*, Kluwer, 2002.
- Parsons, S. *Qualitative methods for reasoning under uncertainty*, MIT Press, 2001.
- Hunter, A. and Parsons, S. (Editors) *Qualitative and quantitative approaches to reasoning with uncertainty*, Lecture Notes in Artificial Intelligence 1638, Springer Verlag, 1999.
- Hunter, A. and Parsons, S. (Editors) *Applications of uncertainty formalisms*, Lecture Notes in Artificial Intelligence 1455, Springer Verlag, 1998.

Journal Papers

- Parsons, S., Rodriguez-Aguilar, J. A. and Klein, M. Auctions and bidding: A guide for computer scientists, *ACM Computing Surveys*, (to appear).
- Niu, J., Cai, K., Parsons, S., McBurney, P., and Gerding, E. What the 2007 TAC Market Design Game tells us about effective auction mechanisms, *Journal of Autonomous Agents and Multiagent Systems*, **21**(2):172–203, 2010.
- Phelps, S., McBurney, P. and Parsons, S. Evolutionary mechanism design: A review, *Journal of Autonomous Agents and Multiagent Systems*, **21**(2):237–264, 2010.
- Phelps, S., McBurney, P. and Parsons, S. A novel method for strategy acquisition and its application to a double-auction market game, *IEEE Transactions on Systems, Man and Cybernetics, Part B: Cybernetics*, **40**(3):668–674, 2010.
- Zhou, L., Parsons, S., and Hripcsak, G. The evaluation of a temporal reasoning system in processing clinical discharge summaries, *Journal of the Medical Informatics Association*, **15**(1):99–106, 2008.
- Nielsen, S. and Parsons, S. An application of formal argumentation: Fusing Bayesian networks in multi-agent systems, *Artificial Intelligence*, **171**(10-15), 754–775, 2007.
- Tuyls, K. and Parsons, S. What evolutionary game theory tells us about multiagent learning, *Artificial Intelligence*, **171**(7), 406–416, 2007.
- McBurney, P. and Parsons, S. Retraction and revocation in agent deliberation dialogues, *Argumentation*, **21**(3), 269–289, 2007.

- McBurney, P., Hitchcock, D., and Parsons, S. The eightfold way of deliberation dialogue, *International Journal of Intelligent Systems*, **22**(1), 95–132, 2007.
- Melton, G. B., Parsons, S., Morrison, F. P., Rothschild, A. S., Markatou, M. and Hripcsak, G. Inter-patient distance metrics using SNOMED CT defining relationships, *Journal of Biomedical Informatics*, **39**(6), 697–705, 2006.
- Hripcsak, G., Zhou, L., Melton, G., and Parsons, S., A temporal constraint structure for extracting temporal information from clinical narrative, *Journal of Biomedical Informatics*, **39**(4), 424–439, 2006.
- Wooldridge, M. J., Fisher, M., Huget M. P. and Parsons, S. Model Checking for Multiagent Systems: The MABLE language and its application, *International Journal of AI Tools*, **15**(2), 195–225, 2006.
- Hripcsak, G., Zhou, L., Parsons, S., Das, A. K. and Johnson, S. B. Modeling electronic discharge summaries as a simple temporal constraint satisfaction problem, *Journal of the American Medical Informatics Association*, **16**(4), 55–63, 2005.
- Rehg, W., McBurney, P., and Parsons, S. Computer decision-support systems for public argumentation: assessing deliberative democracy, *AI and Society*, **19**(4), 2005.
- Schut, M., Wooldridge, M., and Parsons, S. The theory and practice of intention reconsideration, *Journal of Theoretical and Experimental AI*, **16**(4), 261–293, 2004.
- Sklar, E., Parsons, S. and Stone, P. Using RoboCup in university-level computer science education, *Journal on Educational Resources in Computing*, **4**(2), 2004.
- McBurney, P., and Parsons, S. A hundred schools of thought automatically contending, *Controversia*, **3** (1): 66–72, 2004.
- Parsons, S. On precise and correct qualitative probabilistic reasoning, *International Journal of Approximate Reasoning*, **35**, 111–135, 2004.
- Rahwan, I., Ramchurn, S. D., Jennings, N. R., McBurney, P., Parsons, pS. and Sonenberg, E. Argumentation-based negotiation, *Knowledge Engineering Review*, **18**(4); 343–375, 2003.
- Parsons, S. and McBurney, P. Argumentation-based dialogues for agent co-ordination, *Group Decision and Negotiation*, **12**(5), 415–439, 2003.
- Parsons, S., Wooldridge, M., and Amgoud, L. On properties and complexity of some formal inter-agent dialogues, *Journal of Logic and Computation*, **13**(3), 347–376, 2003.
- Parsons, S. Order of magnitude reasoning and qualitative probability, *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, **11**(3), 373–390, 2003.
- Bourne, R. A. and Parsons, S. Extending the maximum entropy approach to variable strength defaults, *Annals of Mathematics and Artificial Intelligence*, **39**(1–2), 123–146, 2003.
- McBurney, P., van Eijk, R., Parsons, S., and Amgoud, L. A dialogue-game protocol for agent purchase negotiations. *Journal of Autonomous Agents and Multi-Agent Systems*, **7**(3), 2003.
- McBurney, P. and Parsons, S. Chance discovery and scenario analysis, *New Generation Computing*, **21**, 13–22, 2003.
- Renooij, S., van der Gaag, L. and Parsons, S. Context specific sign propagation in qualitative probabilistic networks, *Artificial Intelligence*, **140**, 207–230, 2002.
- McBurney, P. and Parsons, S. Games that agents play: A formal framework for dialogues between autonomous agents. *Journal of Logic, Language and Information*, **11**, 315–334, 2002.
- McBurney, P. and Parsons, S. Dialogue games in multi-agent systems. *Informal Logic*, **22**(3), 257–274, 2002.
- Sabater, J., Sierra, C., Parsons, S. and Jennings, N. R. Engineering executable agents using multi-context systems, *Journal of Logic and Computation*, **12**(3), 413–442, 2002.

- McBurney, P., Parsons, S. and Green, J. Forecasting market demand for new telecommunications services: an introduction. *Telematics and Informatics*, **19**, 225–249, 2002.
- McBurney, P. and Parsons, S. Determining error bounds for hypothesis tests in risk assessment: a research agenda. *Law, Probability and Risk*, **1**, 17–26, 2002.
- McBurney, P. and Parsons, S. Representing epistemic uncertainty by means of dialectical argumentation, *Annals of Mathematics and Artificial Intelligence*, **32**(1–4), 125–169, 2001.
- McBurney, P. and Parsons, S. Dialectical argumentation for reasoning about chemical carcinogenicity. *Logic Journal of the IGPL*, **9**(2), 191–203, 2001.
- Jennings, N. R., Faratin, P., Lomuscio, A. R., Parsons, S., Sierra, C., and Wooldridge M. J. Automated negotiation: Prospects, methods and challenges, *Group Decision and Negotiation*, **10**, 199–215, 2001.
- McBurney, P. and Parsons, S. Intelligent systems to support deliberative democracy in environmental regulation. *Information and Communications Technology Law*, **10**(1), 33–43, 2001.
- Parsons, S. and Bourne, R. A. On proofs in System P, *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, **8**(2), 203–233, 2000.
- McBurney, P. J. and Parsons, S. Risk agoras: Using dialectical argumentation to debate risk, *Risk Management*, **2**(2), 17–27, 2000.
- Parsons, S. A proof theoretic approach to qualitative probabilistic reasoning, *International Journal of Approximate Reasoning*, **19**(3–4), 265–297, 1998.
- Parsons, S., Sierra, C. and Jennings, N. R. Agents that reason and negotiate by arguing, *Journal of Logic and Computation*, **8**(3), 261–292, 1998.
- Parsons, S. Imperfect information in data and knowledge-bases: a survey of current approaches, *IEEE Transactions on Data and Knowledge Engineering*, **8**(3), 353–372, 1996.
- Parsons, S. and Saffiotti, A. A case study in the qualitative verification and debugging of numerical uncertainty, *International Journal of Approximate Reasoning*, **14**(2/3), 187–216, 1996.
- Parsons, S. and Dohnal, M. The qualitative and semiquantitative analysis of environmental problems *Environmental Software*, **10**(2), 75–85, 1995.
- Parsons, S., Kubat, M. and Dohnal, M. A rough set approach to reasoning under uncertainty, *Journal of Experimental and Theoretical AI*, **7**(2), 175–193, 1995.
- Parsons, S. Hybrid models of uncertainty in protein topology prediction *Applied Artificial Intelligence*, **9**(3), 335–351, 1995.
- Parsons, S. Further results in qualitative uncertainty, *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, **3**, 187–210, 1995.
- Parsons, S. and Kubat, M. A first order logic for reasoning under uncertainty using rough sets, *Journal of Intelligent Manufacturing*, **5**, 211–223, 1994.
- Kubat, M. and Parsons, S. Approximating knowledge in a multi-agent system, *Informatica*, **18**, 115–129, 1994.
- Saffiotti, A., Parsons, S. and Umkehrer, E. A case study in comparing uncertainty management techniques, *Microcomputers in Civil Engineering—Special Issue on Uncertainty in Expert Systems*, **9**, 367–380, 1994.
- O’Sullivan, D., O’Brien, P., Davison, R., Parsons, S., and Mamdani, E. H. DESSERT: A decision support system for provisioning telecoms services over multiple networks, *Communicate*, **1**, 42–51, 1994.
- Parsons, S. Some elements of the theory of qualitative possibilistic networks, *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, **2**, 67–90, 1994.

Parsons, S. Qualitative approaches to applying the Dempster-Shafer theory, *Information and Decision Technologies*, **19**, 321–337, 1994.

Parsons, S. Using interval algebras to model order of magnitude reasoning, *Artificial Intelligence in Engineering*, **8**, 87–98, 1993.

Hurme, M., Parsons, S., Dohnal, M., and Järveläinen A qualitative commonsense method for optimisation of complex engineering systems, *Engineering Optimisation*, **20**, 323–339, 1993.

Parsons, S. and Dohnal, M. A semiquantitative approach to reasoning in probabilistic networks, *Applied Artificial Intelligence*, **7**, 223–235, 1993.

Dohnal, M., Starzak, M., Kerlowsky, M., Dohnalova, J., Vystřcil, J., Koivisto, R., Porkorny, M., Vainz, M. and Parsons, S. A fuzzy upgrading of integrated vague managerial and engineering knowledge, *International Journal of Production Economics*, **32**, 209–228, 1993.

Parsons, S. and Dohnal, M. Qualitative, semiquantitative and interval algebras, and their application to engineering problems, *Engineering Applications of Artificial Intelligence*, **5**, 553–560, 1992.

Refereed Major Conference Papers

Dunne, P. E., Hunter, A., McBurney, P., Parsons, S. and Wooldridge, M. Inconsistency tolerance in weighted argument systems, *Proceedings of the 8th International Conference on Autonomous Agents and Multi-Agent Systems*, Budapest, Hungary, 2009.

Tang, Y., Norman, T. and Parsons, S. A model for integrating dialogue and the execution of joint plans, *Proceedings of the 8th International Conference on Autonomous Agents and Multi-Agent Systems*, Budapest, Hungary, 2009.

Kaisers, M., Tuyls, K. and Parsons, S. An evolutionary model of multi-agent learning with a varying exploration rate, *Proceedings of the 8th International Conference on Autonomous Agents and Multi-Agent Systems*, Budapest, Hungary, 2009. (poster)

Niu, J., Cai, K., Gerding, E., McBurney, P. and Parsons, S. Characterizing effective auction mechanisms: Insights from the 2007 TAC market design competition, *Proceedings of the 7th International Conference on Autonomous Agents and Multi-Agent Systems*, Estoril, Portugal, 2008.

Tang, Y. and Parsons, S. A dialogue mechanism for public argumentation using conversation policies, *Proceedings of the 7th International Conference on Autonomous Agents and Multi-Agent Systems*, Estoril, Portugal, 2008.

Parsons, S., McBurney, P., Sklar, E. and Wooldridge, M. On the relevance of utterances in formal inter-agent dialogues *Proceedings of the 6th International Conference on Autonomous Agents and Multi-Agent Systems*, Honolulu, 2007.

Tang, Y., Parsons, S. and Sklar, E. An agent-based model that relates investment in education to economic prosperity, *Proceedings of the 6th International Conference on Autonomous Agents and Multi-Agent Systems*, Honolulu, 2007. (poster)

Kaushik, R., Marcinkiewicz, M., Xiao, J., Parsons, S., and Rapham, T. Implementation of bio-inspired vestibular-ocular reflex in a quadrupedal robot, *Proceedings of the International Conference on Robotics and Automation*, Rome, 2007.

Wooldridge, M., Dunne, P. E. and Parsons, S. On the complexity of linking deductive and abstract argumentation systems, *Proceedings of the 21st National Conference on Artificial Intelligence (AAAI '06)*, Boston, MA, 2006.

Phelps, S., Marcinkiewicz, M., Parsons, S. and McBurney, P. A novel method for automated strategy acquisition in n-player non-zero-sum games, *Proceedings of the 5th International Conference on Autonomous Agents and Multi-Agent Systems*, Hakodate, Japan, 2006.

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