Simon Parsons

Email: simon.parsons@kcl.ac.uk

Citizenship: UK citizen and US citizen.

Qualifications: Ph.D. Engineering/Artificial Intelligence, University of London, 1993.

M.Sc. Computing Science, University of London, 1989. B.A. (Hons) Engineering, University of Cambridge, 1988.

Appointments held:

July 2015 – present.

Professor, Department of Informatics at King's College London.

Head, Reasoning & Planning Research Group, July 2018 - present.

Deputy Head of Department (Engineering), July 2017 – present.

Vice Dean (Technology), July 2015 – July 2018.

July 2013 - July 2015

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

Head, Agent ART Research Group, September 2014 – July 2015.

Postgraduate Admissions Tutor, October 2013 - July 2015.

January 2007 – June 2013

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

Graduate Deputy Chair, August 2009 – June 2013.

September 2002 – December 2006

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

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.

April 1993 – February 1995

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

September 1989 – March 1993, March 1995 – September 1995

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

Students and Grants

Research Funding Secured:

Total to date: \$ 12,710,018

- **EPSRC** (September 2018–August 2021) (in collaboration with Dr D. Magazenni and Professor E. Sklar), "THUMP: Trust in Human-Machine Partnership", £1,246,266.
- ESRC (April 2017–April 2018) (in collaboration with Dr E. Sklar and Ms. A. Pollitt), "DASH: Data Awareness for Sending Help", £245,699
- EPSRC (March 2017–February 2020) (in collaboration with Dr E. Sklar, Dr M. Ashworth, Dr V. Curcin and Dr S. Modgil), "CONSULT: Collaborative Mobile Decision Support for Managing Multiple Morbidities", £1,698,921.
- Qinetiq/DSTL (October 2013 March 2014) (in collaboration with Professor S. Maskell), "Argumentation Theoretic Negotiation with Autonomous Sensor Modules", £20,000.
- NSF (September 2012 August 2013) (in collaboration with Dr. E. Sklar), "Academic-year robotics research for urban public college students", \$62,500.
- NSA/NCSU (May 2012 May 2014) (in collaboration with Professor M. Singh), "The Science of Security", \$140,000.
- NSF (September 2011 August 2015) (in collaboration with Professor K. Levitt, Dr. J. Rowe and Professor E. Sklar), "An Argumentation-based Framework for Security Management", \$498,628.
- NSF (September 2011 August 2015) (in collaboration with Professor E. Sklar and Professor S. Epstein), "Learning to perform consistently in human/multi-robot teams", \$474,951.
- Army Research Laboratory (September 2009 September 2013) "Network Science, Collaborative Technology Alliance", \$212,703.
- 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.
- Army Research Laboratory (May 2006 May 2011) "International Technology Alliance", \$182,272.
- Liverpool University/EPSRC (September 2006 September 2009) "Market design game", \$93,058.
- NSF (March 2006 March 2010) (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 2011) (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 environments", \$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", £15,000
- EPSRC (July 2001 June 2004) (in collaboration with Professor M. Wooldridge), "Verifiable languages and protocols for multi-agent systems", £140,000
- Liverpool University (in collaboration with Professor M. Wooldridge), "Control of reasoning in uncertain environments", £40,000
- HSE (July 2000 August 2001), "Validation techniques for risk audit methodologies", £50,000
- EC/IST (April 2000 March 2003), "Sustainable lifecyles for information ecosystems", £160,000
- EPSRC (October 1999 October 2002) (in collaboration with Dr J. Bigham and Professor L. Cuthbert), "Strategic resource management", £175,000
- EC/ACTS (July 1999 May 2000), "Multi-agent architecture for distributed-IN load control and overload protection", £53,000
- EPSRC (February 1999 September 2002) (in collaboration with Professor M. Wooldridge and Professor N. Jennings), "Practical negotiation for electronic commerce", £174,000
- EPSRC (March 1998 March 2001), "Qualitative methods for reasoning under uncertainty", £50,000

Research student supervision:

Current:

- Anna Collins (King's)
- Todd Flyr (CUNY).
- Jordi Ganzer-Ripoll (King's).
- Kaushalya Kularatnam (King's)
- Zimi Li (CUNY).
- Mohammad Mani (King's)
- Jack Mumford (King's)
- Pavithra Rajendran (Liverpool).
- Stefan Sarkadi (King's)

Successfully completed:

- Kai Cai (2018).
- Eric Schneider (2018).
- Suzanne Tamang (2013).

- Yuqing Tang (2012).
- Jinzhong Niu (2011).
- Steve Phelps (2007).
- Peter McBurney (2002).
- Rachel Bourne (1999).
- Christiana Panayiotou (1997).

Institutional Service

• Head, Reasoning & Planning Research Group, (July 2018 – present)

I have administrative responsibility for the academics in the Reasoning and Planning group and my role also involves establishing the research culture in the group — the group was formed in July 2018 combining academics who work on planning and academics who work on argumentation. As head of group, I am a member of the Department's Strategy Group.

• Deputy Head of Department (Engineering), (July 2017 – present)

I am responsible for coordinating between the Department of Informatics and the new team now implementing the Engineering programme. I am also responsible for matters relating to the existing programmes in Electronic Engineering. As Deputy Head, I am a member of the Department's Executive Committee.

• Vice Dean (Technology), (July 2015 – July 2018)

Working with the Dean of the Faculty of Natural and Mathematical Sciences (a faculty is equivalent to a school in a US institution), I was responsible for the development and implementation of a new Engineering activity at King's. This work included persuading senior management to undertake major investment in construction to support the new activity, persuading the Dean that the new activity should embrace project-based learning, developing curriculum, working with architects to design a new space for engineering, and recruiting new staff. The role ended when we had successfully recruited a Head of department for a new Department fof Engineering. As a Vice Dean, I was a member of the Executive Committee of the School.

• Head, Agent ART Research Group, (September 2014 – July 2015)

I was responsible for research leadership within the group and for conducting Performance Development Reviews of group members. As Head of Group, I was a member of the Senior Management Team within the department.

• Infrastructure Committee (September 2014 – July 2015)

The committee was responsible for tracking the state of the buildings occupied by the School of Electrical Engineering, Electronics and Computer Science. I was Chair of the committee.

• Postgraduate Admissions Tutor (October 2013 – July 2015)

I was responsible for marketing, admissions decisions, and answering admissions enquiries for the four postgraduate taught programs in Computer Science.

• School Management Team (September 2013 – September 2014)

The committee advised the Head of School on high level policy within the School of Electrical Engineering, Electronics and Computer Science.

• Graduate Deputy Chair (August 2009 – June 2013).

I was responsible for all administrative matters relating to the two Masters programs in the Department of Computer and Information Science. I handled admissions, academic advising for the 200+ students, decisions on which classes to run, and the teaching allocation for those classes.

- Graduate Curriculum Committee (September 2004 June 2013)
 The committee was responsible for all academic matters relating to the Masters programs, including modifying program
- requirements and introducing new courses.
 Science Building Committee (November 2006 October 2007)

The committee was responsible for specifying the requirements for a new science building. I was Chair of the commit-

- Science Research Council (May 2006 June 2007)
- The committee advised the Provost on how to encourage research in the sciences.

Invited Talks and Courses

Invited Plenary Talks:

- Computational argumentation for decision making, Workshop on Computational Models of Natural Argument, New York, 2016.
- Computational argumentation for decision making, European Conference on Argumentation, Lisbon, 2015.
- *The State of the Argument*, European Conference on Symbolic and Quantitative Approaches to Reasoning and Uncertainty, Utrecht, 2013.
- Learning in Markets, Workshop on Autonomous Learning Agents, Valencia, 2012.
- An Introduction to Autonomous Agents, European Agent Systems Summer School, Gerona, 2011.
- Argumentation and Trust, 12th International Workshop on Computational Logic in Multi-Agent Systems, Barcelona, 2011.
- 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, Virginia Beach, June 2004.
- Semantic distance and qualitative probability, NIST Workshop on Semantic Distance, Washington D. C., November 2003.
- Argumentation and dialogue, 5th Dutch German Workshop on Nonmonotonic Reasoning Techniques and their Applications, Potsdam, 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, Berlin, August 2000.
- Game theoretic and decision theoretic agents, Workshop on "Multi-agent Learning: Theory and practice" at the International Conference on Machine Learning, Stanford, 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, London, December 1997.
- Rough set theory, Landmark Technology Forum, Houston, February 1997.

Invited Courses:

- Big Data: What and Why, Higher Command Staff Course, February 2016.
- Argumentation-based Dialogue, Advanced Course on AI, King's College London, 2013.
- Rational action in autonomous agents, Universidad Poletechnica 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:

- Computational Argumentation in the Context of Human-Agent Interaction, Internationl Conference on Autonomous Agents and Multi-Agent Systems, Montreal, 2098.
- Computational Argumentation in the Context of Human-Agent Interaction, International Conference on Human-Agent Interaction, Southampton, 2018.
- Robots in Multiagent Systems Research, European Agent Systems Summer School, Girona, 2011.
- Robotics for beginners, AAAI Conference on Artificial Intelligence, Pittsburgh, 2005.
- Robotics for beginners, European Agent Systems Summer School, Utrecht 2005.
- Rational action in autonomous agents, International Conference on Autonomous Agents and Multi-Agent Systems, Melbourne, 2003.
- Robotics for beginners, International Conference on Autonomous Agents and Multi-Agent Systems, Melbourne, 2003.
- Rational action in autonomous agents, International Conference on Autonomous Agents and Multi-Agent Systems, Bologna, 2002.
- Rational action in autonomous agents, AAAI Conference on Artificial Intelligence, Edmonton, 2002.
- Rational action in autonomous agents, Autonomous Agents, Montreal, 2001.
- Rational action in autonomous agents, European Conference on Artificial Intelligence, Berlin, 2000.

US Seminars:

- Steps towards automated mechanism design, University of Michigan, March 2007.
- Educational robotics, Vassar College, 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:

- Doing the right thing: Artificial intelligence and computational decision making, Liverpool Hope University, April 2016.
- Argument, trust and interaction, Department of Computer Science, University of York, February 2016.
- Experiments in computational mechanism design, University of Essex, December 2014.
- Research activities in the CUNY Agents Lab, University of Edinburgh, March 2012.
- Interaction in socio-technical systems, University of Liverpool, March 2012.
- 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:

- Argument, trust and interaction, LIP6, Université Pierre et Marie Curie, Paris, March 2015.
- Degrees of belief in BDI agents, Spanish National AI Research Centre, Bellaterra, January 1999.

Awards

4th Place, RoboCup Standard Platform League, RoboCup US Open, Pittsburgh, 2008.

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

4th Place, RoboCup Standard Platform League, RoboCup US Open, Atlanta, 2005.

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.

Service to the Research Community

Editorships, Editorial Boards:

• Knowledge Engineering Review

1998 – present: Editor.

1996 - 1998: Associate Editor.

· Journal of Artificial Intelligence Research

2008 - 2011: Editorial Board.

• Journal of Autonomous Agents and Multi-Agent Systems

2003 – present: Editorial Board.

• Argument and Computation

2010 - present: Editorial Board.

• Conference on Autonomous Agents

2004 – 2006: Steering Committee.

• International Foundation on Autonomous Agents and Multiagent Systems

2007 – 2011: Secretary

2006 - 2012: Board of Directors.

• International Conference on Computational Models of Argument

2006 – 2010: Steering Committee

Special Issues Edited:

- 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:

- Department of Computer Science, University of Nottingham, 2016.
- Department of Computer Science, University of Aberdeen, 2015.
- Department of Computer Science, University of Southampton, 2014.
- Department of Computer Science, University of Essex, 2014.
- Department of Informatics, King's College London, 2014.
- College of Business, Victoria University, Melbourne, 2013.
- Department of Computer Science, University of Edinburgh, 2012.
- Department of Computing and Information Systems, University of Melbourne, 2010.
- CNRS, Université Paris Dauphine, 2009.
- Departamento de Electrónica, Informática y Automática, Universitat de Girona, Spain, 2008.
- Department of Biomedical Informatics, Columbia University, 2006, 2007.

- Department of Computer Science, City University of New York, 2004, 2005, 2006, 2012.
- Department of Computer Science, University of Liverpool, 2001, 2014.
- 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, 2008.
- Division of Informatics, University of Edinburgh, 2000.
- Department of Engineering Science, University of Oxford, 1999.
- Department of Computer Science, University College, London, 1998.
- Department of Mechanical Engineering, University College, London, 1998.
- Department of Computer Science, Imperial College, London, 1996, 1997, 1998.

Consultancies:

- 02.
- Imperial Cancer Research Fund.
- Plural AI
- Redwing Consulting.
- · Robust Links.
- Strands.
- · Teledesic LLC.

Conference and Workshop Organisation:

• International Conference on Autonomous Agents and Multi-Agent Systems.

2008: General Co-chair.

2019: Area Chair

2005, 2006, 2011, 2012, 2014, 2015, 2016: Senior Program Committee.

2004: Local Organisation Chair.

2003: Workshop Chair.

2002, 2003, 2007, 2009, 2010, 2013: Program Committee.

• International Joint Conference on Artificial Intelligence.

2011, 2013, 2015, 2018, 2019: Senior Program Committee.

• The AAAI Conference on Artificial Intelliegnce.

2007, 2008: Workshop Chair.

2015, 2017, 2018, 2019: Senior Program Committee.

2002, 2004, 2005, 2006, 2007: Program Committee.

• ACM International Conference on Intelligent Agent Technology.

2009: Program Co-chair.

2003, 2004: Program Committee.

• Conference on Computational Models of Argument.

2014: Program Chair.

2006 – 2010: Steering Committee.

2016, 2018: 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, 2011, 2013, 2015: Program Committee.

• Conference on Scaleable Uncertainty Management.

2010, 2011, 2013, 2015: Program Committee.

• Conference on Uncertainty in Artificial Intelligence.

1994, 1995, 1997 – 2006: Program Committee.

• European Conference on Artificial Intelligence.

2010: Program 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, 2009-2015: 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 Workhop 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.
- 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.
- Cognitive Science Quarterly.