CURRICULUM VITAE

Daniel Mark Wolpert FRS FMedSci
Professor of Engineering (1875)

Department of Engineering
University of Cambridge
Trumpington Street
Cambridge CB2 1PZ

Tel: +44 (0)1223 748530
Fax: +44 (0)1223 332662
Email wolpert@eng.cam.ac.uk
Homepage www.wolpertlab.com

Education/Qualifications

1985	Medical Sciences	BA	University of Cambridge
1988	Clinical Medicine	BM BCh	University of Oxford
1992	Physiology	D. Phil	University of Oxford

Professional History

1988-89 Medical House Officer, Oxford

1989-92 Medical Research Council Training Fellow
University Laboratory of Physiology, University of Oxford
Supervisor: John Stein

1992-94 Postdoctoral Associate, Department of Brain & Cognitive Science
Massachusetts Institute of Technology
Supervisor: Michael Jordan

1994-95 McDonnell-Pew Fellow in Cognitive Neuroscience, Brain & Cognitive Sciences
Massachusetts Institute of Technology
Supervisors: Michael Jordan

1995-99 Lecturer in Neurophysiology, Institute of Neurology
University College London

1999-02 Reader in Motor Neuroscience,
Institute of Neurology, University College London

1999-05 Co-director, Institute of Movement Neuroscience

2002-05 Professor of Motor Neuroscience
Vice-Chair, Sobell Department of Motor Neuroscience & Movement Disorders,
Institute of Neurology, University College London

2005-08 Honorary Senior Research Fellow, UCL

2005- Professor of Engineering (1875)
Department of Engineering, University of Cambridge

2005- Professorial Fellow, Trinity College, University of Cambridge

Prizes, Awards and other Honours

1982-85 Thomas Cannon Brooke's Scholarship for Mathematics, Trinity Hall, Cambridge
1989-92 Senior Scholarship, Lincoln College, Oxford
1992-95 Fulbright Scholarship
2004 Fellow of the Academy of Medical Sciences (FMedSci)
2005 Swartz foundation Mind-Brain Lecture, Stony Brook University
2005 Royal Society Francis Crick Prize Lecture
2007 Alice and Joseph Brooks International Lecture, Harvard University
2007 Annual Cognitive Science Lecture, Royal Netherlands Academy of Arts and Sciences
2009 Fred Kavli Distinguished International Scientist Lecture, Society for Neuroscience
2010 Minerva Foundation Golden Brain Award
2012 Fellow of the Royal Society (FRS)

PROFESSIONAL CONTRIBUTIONS

Membership of professional bodies
American Physiological Society
American Society for Neuroscience
British Neuroscience Association
Society for the Neural Control of Movement
The Physiological Society

Editorial Board
2002- Cerebellum
2002- Experimental Brain Research
2011- Editor: Encyclopedia of Motor Control (www.scholarpedia.org)
2003 - 2010 Editorial Board, Trends in Cognitive Sciences
2005 Guest Editor, Current Opinion in Neurobiology

Peer review activities
i) Journal articles reviewed
Biological Cybernetics
Brain
Bulletin of Mathematical Biology
Cerebellum
Cerebral Cortex
Cognition
Current Biology
Current Opinions in Neurobiology
Experimental Brain Research
IEEE Transactions on Evolutionary Computation
International Journal of Cognitive Science
Journal of Cognitive Neuroscience
Journal of Experimental Psychology-HPP
Journal of Mathematical Psychology
Journal of Neurology, Neurosurgery & Psychiatry
Journal of Neurophysiology
Journal of Neuroscience
Journal of Physiology
Journal of the Optical Society of America
Journal of Theoretical Biology
Nature
Nature Neuroscience
Neural Computation
Neuroimage
Neuron
Neuropsychologia
Neuroreport
Neuroscience
NIPS
Physica
PNAS
Proceedings of the Royal Society
Public Library of Science: Biology
Science
Trends in Cognitive Neuroscience

ii) Grants reviewed
BBSRC
Brain Research Trust
BUPA researcg
Canadian Institute for Advanced Research
CNRS, France
EPSRC
French Ministry of Research
Human Frontiers Science Organization
International Spinal Repair Trust
Leverhulme
Medical Research Council
National Institute of Health, USA
National Science Foundation, USA
Newton Trust
NWO, Netherlands
Science Foundation Ireland
The Psychobiology Institute, Israel
The Wellcome Trust
Wolfson Foundation

Cambridge Committees
2005- Chair of Engineering for Life Science Committee, Dept. of Engineering
2005- Teaching Committee, Dept. of Engineering
2006- Research Policy Committee
2006- Appointments Committee for the Director of Biotechnology
2007- Visiting Fellows Committee, Trinity College
2007- Education Committee, Trinity College
2007- Cambridge Neuroscience Committee
2008-10 Faculty Board, Dept. of Engineering
2009 Elector, Chair of Physiology
2009 School of Technology Research Policy Committee

2010- Committee of Management for the Wellcome Trust/CRUK Gurdon Institute
2010- Council, Trinity College
2011-12 Acting Co-chair of Cambridge Neuroscience Committee
2011- Faculty Board, Dept. of Engineering

External Committees
2008 CAPNets International Advisory Board
2009- Gatsby Computational Neuroscience Unit UCL, Advisory Board
2010- Expert Review Group, Neuroscience and Mental Health, Wellcome Trust
2011- British Neuroscience Association Scientific Advisory Board

GRANTS AWARDED
a) Current Grants

Nov 2011-2014 Human Frontiers Science Program Research Grant (3 years)
Deciding and revising: A unifying framework for decision making and motor control
DM Wolpert (PI), MN Shadlen
$750,000

May 2012-2019 Wellcome Trust Senior Investigator Award (7 years)
Computations in sensorimotor control
DM Wolpert
£1,800,000

b) Previous Grants

1994-1997 Office of Naval Research (3 years)
Computational human motor control
MI Jordan & DM Wolpert
$420,000

Jan 1996-1997 Physiological Society New Lecturers Support Scheme (1 year)
EMG activity during motor planning and sensorimotor integration
DM Wolpert
£5,000

Feb 1996-1999 Wellcome project grant (3 years)
Sensorimotor integration and planning in human motor control
DM Wolpert
£211,991

Apr 1997-2000 MRC project grant (3 years)
Motor planning and representation in the cortical control of movement
DM Wolpert & RN Lemon
£223,979

Jul 1997-2000 Wellcome biomedical research collaboration grant (3 years)
Motor planning of hand transport and orientation
DM Wolpert & T Flash
£5,850

Mar 1998-1999 Royal Society Equipment grant (1 year)
Prediction in motor control
DM Wolpert
£10,000

Jul 1998-2001 MRC Co-operative Group (3 years)
Neural control of movement
RN Lemon, DM Wolpert, J Rothwell, P Kirkwood & P Haggard
£110,000

Aug	1998-2001	BBSRC project grant (3 years) Sensorimotor representation and manual action P Haggard & DM Wolpert £140,000
Sep	1999-2002	Human Frontiers Science Program Research Grant (3 years) Internal models for multiple tasks in sensorimotor control DM Wolpert (PI), M Kawato, RN Lemon, J Kalaska, JR Flanagan & S Kitazawa $750,000
Oct	2000-2004	Marie Curie Training Site, European Commission (4 years) Neural control of movement in health and disease DM Wolpert €240,000
Jan	2001-2004	McDonnell Foundation (4 years) Mechanisms of forward thinking and behavior S Grafton, M Desmurget, C Frith, M Kawato, R Miall,Y Rosetti & DM Wolpert $1,500,000
Jan	2001-2003	Advanced Telecommunications Research Institute, Kyoto (2 years) Neuro-computational mechanisms of communication DM Wolpert ¥5,000,000 (£25,000)
Jul	2001-2006	Wellcome Programme Grant (5 years) Computational human sensorimotor control DM Wolpert £795,500
Apr	2003-2006	Riken Institute, Japan (3 years) Controlling the statistics of action: Noise and uncertainty in sensorimotor control DM Wolpert ¥10,000,000 (£50,000)
Sep	2003-2008	MRC Co-operative Group (3 years) Neural control of movement RN Lemon, DM Wolpert, J Rothwell, P Kirkwood & P Haggard £278,000
Nov	2003-2006	Human Frontiers Science Program Research Grant (3 years) Controlling the statistics of action: Noise and uncertainty in sensorimotor control JR Flanagan (PI), S Kitazawa, R Shadmehr, DM Wolpert $1,350,000
Jul	2009-2009	Nokia (6 months) Electro-tactile interface £54,457 May
Jan	2006-2010	EU FP6 Integrated project (4 years) Sensorimotor structuring of perception and action for emerging cognition with 12 other EU centers Cambridge share €535,000
Apr	2006-2012	Wellcome Programme Grant (5 years) Computational human sensorimotor control DM Wolpert £1,158,000

ACADEMIC SUPERVISION

Research fellows supervised

1996-99	Susan Goodbody	2003-05	Mike Cassidy
1997-99	Tobe Freeman	2003-	Ian Howard
1998-02	Robert van Beers	2004-06	Lili Tcheang
2000-02	Pierre Baraduc	2006-08	Alaa Ahmed
2000-02	Kelvin Jones	2006-09	Aldo Faisal
2000-	James Ingram	2006-09	Luc Selen
2002-03	Paul Davidson	2007-	Daniel Braun
2002-04	Konrad Körding	2007-	David Franklin
2002-04	Antonia Hamilton	2009-10	Stephen Wall
2003-04	Mashiko Haruno	2010-	Gergo Orban
2003-04	Daniel Joyce	2010-	Michael Dimitriou
2003-05	Martin Voss		

PhD students supervised

1997-00	Sarah Blakemore	Wellcome neuroscience programme co-supervised with Prof C.D. Frith
1997-00	Alice Witney	Medical Research Council
1998-01	Philipp Vetter	Wellcome neuroscience programme
1998-01	Antonia Hamilton	Brain Research Trust
2003-06	Paul Bays	Wellcome Prize studentship
2006-	James Ingram	Part-time PhD
2007-10	Arne Nagengast	Medical Research Council
2007-8	Hugo Vincent	
2008-12	Edward Turnham	MD PhD program
2008-09	Arbora Resulaj	Janelia-Cambridge PhD Program
2011-12	Diana Burk	Janelia-Cambridge PhD Program

Undergraduate/MSc projects supervised

1998	Olivia Whiteside	2003	Henry Chase
2000	Alex Korenberg	2004	Izumi Fukunaga
2002	Matthew Self	2007	Oliver Kroemer
2002	Simon Osindero	2007	Julian Johnson
2003	Shi-Pi Ku	2008	Jesse Fleminger
2003	Ben Corden	2008	Emmanuel Akinluyi

Technical staff supervised

2001-3	Paul Bays, Research Assistant
2001-5	Ed Bye, Electronics Engineer
2004-5	Richard Symonds, Laboratory Technical Assistant
2007-8	Phillip Lyons Technical Assistant

PhDs examined

1996	Philip Sabes	Brain and Cognitive Sciences, Massachusetts Institute of Technology
1997	Alistair Crowe	Department of Psychology, University of Sheffield
1998	Magnus Burstedt	Department of Physiology, University of Umea, Sweden
1999	Helen Ingram	Department of Physiology, University of Oxford
2003	Raymond Reynolds	Imperial College London
2005	Angela Yu	Gatsby Computational Neuroscience Unit, UCL
2006	Gavin Simmons	Imperial College London
2006	Luc Selen	Free University Amsterdam
2010	Daniel Myall	University of Otago

TEACHING ACTIVITY

Undergraduate & graduate teaching

1989-92 Oxford University
Tutorial Supervision, Neurophysiology

1992-95 Massachusetts Institute of Technology
Graduate Lectures on Computational Motor Control

1995-05 University College London
- Coordinator EU Marie Curie Training Site for Neural control of movement
- module on Final year BSc in Psychology
- Lecture on, MSc in Neuroscience
- Lecture on Computational Neuroscience Course
- Lecture on MSc in Clinical Neuroscience
- Lecture on Neurocomputation course

2005- University of Cambridge
Engineering:
- Part IB Engineering of the Life Sciences (6L)
- Part IIA Introduction to Neuroscience (8L)
- Part IIB Computational Neuroscience (2L)
- Graduate Research and communication club in Sensorimotor Control

Natural Sciences
- Part IB Neurobiology (3L)
- Part II Neuroscience (3L)

2008 Open-day talk to 6th form student, Department of Engineering
Teaching prize: Best 3rd year lecture, Department of Engineering

Public understanding of science

2002-6 Member of Network 3/Phase II (OECD/CERI) initiative to examine the significance brain research for education
2003 Cambridge University Government Policy seminar on Artificial and Biological Cognitive Systems
2005 Public lecture Annual Swartz Foundation Mind-Brain lecture, Stony Brook University
2005 Public lecture Crick Prize Lecture, Royal Society
2006 Public lecture Philosophical Society, Cambridge
2006 Public lecture International Science Summer School, Cambridge
2006 Public lecture Alumni weekend talk, Cambridge
2007 Public lecture International Science Summer School, Cambridge
2007 Public lecture Alumni, Trinity College, Cambridge
2010 Public Lecture Plenary Lecture at the Cambridge Neuroscience

PUBLICATIONS

Edited Books

1. Frith CD & Wolpert DM (Eds) (2004). **The Neuroscience of Social Interaction: Decoding, imitating, and influencing the actions of others**. Oxford University Press

Book Chapters

1. Miall RC & Wolpert DM (1990). Optimizing neural networks without back-propagation – Evolutionary hill climbing techniques. In **Neural Modelling**, Soc. for Neuroscience Short Course 3, Chapter 8.
2. Miall RC & Wolpert DM (1995). The cerebellum as a predictive model of the motor system: A Smith predictor hypothesis. In: Ferrell WR & Proske U. **Neural Control of Movement**. New York: Plenum Press: 215-23.
3. Ghahramani Z, Wolpert DM & Jordan MI (1997). Computational models of sensorimotor Integration. In: Morasso PG & Sanguineti V,. **Self-organization, Computational Maps and Motor Control** Elsevier Press: 117-48
4. Kawato M & Wolpert DM (1998). Internal models for motor control. In: Bock GR & JA Goode. **Sensory Guidance of Movement**. Novartis Foundation: 291-307
5. Jordan MI & Wolpert DM (1999). Computational motor control. In: Gazzaniga M, **The New Cognitive Neurosciences**. 2nd edition, MIT Press, 601-20
6. Wolpert DM & Ghahramani Z (2000). Maps, modules and internal models in human motor control. In: Winters JM & Crago PE **Biomechanics and Neural Control of Posture and Movement** Springer-Verlag: 317-24
7. Wolpert DM & Ghahramani Z (2002). Motor learning models. In **Encyclopaedia of Cognitive Science**, Nature Publishing Group
8. Wolpert DM & Flanagan JR (2003). Sensorimotor learning. In: M Arbib **The Handbook of Brain Theory and Neural Networks** (2nd Ed), pp 1020-1023, MIT Press: Cambridge
9. Wolpert DM & Ghahramani Z (2004). Computational motor control. In: Gazzaniga M, **The Cognitive Neurosciences**, 3rd edition. MIT Press. 485-94
10. Haggard P & Wolpert DM (2005). Disorders of body scheme. In: H-J Freund, M Jeannerod & M Hallett. **Higher-Order Motor Disorders: From Neuroanatomy and Neurobiology to Clinical Neurology** Oxford University Press.
11. Körding KP, Wolpert DM. (2006). Probabilistic mechanisms in sensorimotor control. In: **Percept, Decision, Action: Bridging the Gap**. Novartis Foundation.191-8
12. Wolpert DM, Pearson K, & Ghez C (in press). Chapter 33: The organization and planning of movement In: Kandel ER, Schwartz JH, Jessell TM, Siegelbaum S & Hudspeth J. **Principles of Neural Science** (5th edition) , McGraw-Hill.
13. Wolpert DM & Ghahramani Z (in press). Bayes rule in perception, action and cognition. **Oxford Companion to the Mind.**
14. Wolpert DM & Flanagan JR (in press). Forward models. **Oxford Companion to Consciousness.**

PhD Thesis

D.Phil Thesis (1992). Overcoming time delays in sensorimotor control

Refereed articles

1. Dye C & Wolpert DM (1988). Earthquakes, influenza and cycles of Indian kala-azar. **Transactions of the Royal Society of Tropical Medicine and Hygiene**. 82: 843-50.
2. Wolpert DM & Miall RC (1990). Detecting chaos with neural networks. **Proceedings of the Royal Society London B.** 242: 82-6.

3. Wolpert DM, Miall RC, Winter JL & Stein JF (1992). Evidence for an error deadzone in compensatory tracking. **Journal of Motor Behavior**. 24(4): 299-308.

4. Wolpert DM, Miall RC, Kerr GK & Stein JF (1993). Ocular limit cycles induced by delayed retinal feedback**.** **Experimental Brain Research** 96:173-80.

5. Wolpert DM, Miall RC, Cumming B & Boniface S (1993). Retinal adaptation of visual processing time delays. **Vision Research**. 33(10): 1421-30.

6. Miall RC, Weir DJ, Wolpert DM & Stein JF (1993). Is the cerebellum a Smith Predictor? **Journal of Motor Behavior** 25(3): 203-16.

7. Wolpert DM, Ghahramani Z & Jordan MI (1994). Perceptual distortion contributes to the curvature of human reaching movements. **Experimental Brain Research** 98:153-6.

8. Wolpert DM, Ghahramani Z & Jordan MI. (1995). Forward dynamic models in human motor control: Psychophysical evidence. **Advances in Neural Information Processing Systems** 7: 43-50.

9. Ghahramani Z, Wolpert DM & Jordan MI. (1995). Computational structure of coordinate transformations: A generalization study. **Advances in Neural Information Processing Systems** 7: 1125-32.

10. Wolpert DM, Ghahramani Z & Jordan MI (1995). Are arm trajectories planned in kinematic or dynamic coordinates? An adaptation study. **Experimental Brain Research** 103:460-70

11. Wolpert DM, Ghahramani Z & Jordan MI (1995). An internal model for sensorimotor integration. **Science** 269:1880-2.

12. Miall RC & Wolpert DM (1996). Forward models for physiological motor control. **Neural Networks** 9(8): 1265-79.

13. Ghahramani Z, Wolpert DM & Jordan MI (1996). Generalization to local remappings of the visuomotor coordinate transformation. **Journal of Neuroscience** 16(21):7085-96.

14. Ghahramani Z & Wolpert DM (1997). Modular decomposition in visuomotor learning. **Nature** 386:392-5.

15. Wolpert DM (1997). Computational approaches to motor control. **Trends in Cognitive Science**. 1(6): 209-16.

16. Goodbody SJ & Wolpert DM (1998). Temporal and amplitude generalization in motor learning. **Journal of Neurophysiology** 79:1825-38.

17. Sabes PN, Jordan MI & Wolpert DM (1998). The role of inertial sensitivity in motor planning. **Journal of Neuroscience** 18(15): 5948-57.

18. Harris CM & Wolpert DM (1998). Signal-dependent noise determines motor planning. **Nature** 394: 780-4. [News and Views page 725-6]

19. Blakemore SJ, Goodbody SJ & Wolpert DM (1998). Predicting the consequences of our own actions: The role of sensorimotor context estimation. **Journal of Neuroscience** 18: 7511-8.

20. Wolpert DM & Kawato M (1998). Multiple paired forward and inverse models for motor control. **Neural Networks** 11(7-8):1317-29.

21. Wolpert DM, Goodbody SJ & Husain M (1998). Maintaining internal representations: The role of the superior parietal lobule. **Nature Neuroscience** 1(6):529-33.

22. Blakemore SJ, Wolpert DM & Frith CD (1998). Central cancellation of self-produced tickle sensation. **Nature Neuroscience** 1(7):635-40.

23. Vetter P, Goodbody SJ & Wolpert DM (1999). Evidence for an eye-centred representation of the visuomotor map. **Journal of Neurophysiology** 81(2). 935-9.

24. Goodbody SJ & Wolpert DM (1999). The effects of visuomotor displacements on arm movement paths. **Experimental Brain Research** 127(2): 213-23.

25. Blakemore SJ, Frith CD & Wolpert DM (1999). Spatio-temporal prediction modulates the perception of self-produced stimuli. **Journal of Cognitive Neuroscience**. 11(5): 551-9.

26. Wolpert DM, Miall RC & Kawato M (1998). Internal models in the cerebellum. **Trends in Cognitive Sciences** 2:338-47.

27. Blakemore SJ, Wolpert DM & Frith CD (1999). The cerebellum contributes to somatosensory cortical activity during self-produced tactile stimulation. **Neuroimage** 10(4): 448-459.

28. Witney AG, Goodbody SJ & Wolpert DM (1999). Predictive motor learning of temporal delays. **Journal of Neurophysiology** 82: 2039-48.

29. Baker SN, Philbin, N, Spinks R., Pinches, EM, Pauluis Q, Wolpert DM, MacManus DG & Lemon RN (1999). Multiple single unit recording in the cortex of monkeys using independently moveable microelectrodes. **Journal of Neuroscience Methods** 94: 5-17.

30. Frith CD, Blakemore SJ & Wolpert DM (1999). Explaining the symptoms of schizophrenia: Abnormalities in the awareness of action. **Brain Research Reviews** 31: 2-3.

31. Haruno M, Wolpert DM & Kawato M (1999). Multiple paired forward-inverse models for human motor learning and control. **Advances in Neural Information Processing Systems** MIT Press, Cambridge, Mass. 11: 31-7.

32. Witney AG, Goodbody SJ & Wolpert DM (2000). Learning and decay of prediction in object manipulation. **Journal of Neurophysiology** 84: 334-43.

33. Vetter P & Wolpert DM (2000). Context estimation for sensorimotor control. **Journal of Neurophysiology** 84:1026-34.

34. Wolpert DM & Z Ghahramani (2000). Computational principles of motor control. **Nature Neuroscience** 3:1212-7.

35. Vetter P & Wolpert DM (2000). The CNS updates its context estimate in the absence of feedback. **Neuroreport** 11(7): 3783-6.

36. Frith CD, Blakemore SJ, Wolpert DM (2000). Abnormalities in the awareness and control of action. **Philosophical Transactions of the Royal Society B (Biological Sciences).** 355: 1771-88

37. Blakemore SJ, Wolpert DM & Frith CD (2000). Why can't you tickle yourself. **Neuroreport** 11(11): R11-5.

38. Witney A, Vetter P & Wolpert DM (2001). The influence of previous experience on predictive motor control. **Neuroreport** 12(4): 649-53.

39. van Beers R, Wolpert DM & Haggard P (2001). Sensorimotor integration compensates for visual localization errors during smooth pursuit eye movements. **Journal of Neurophysiology** 85: 1914-22.

40. Flanagan JR, King S, Wolpert DM & Johansson RS (2001). Sensorimotor prediction and memory in object manipulation. **Canadian Journal of Experimental Psychology** 55: 89-97.

41. Blakemore SJ, Frith CD & Wolpert DM (2001). The cerebellum is involved in predicting the sensory consequences of action. **Neuroreport** 12(11): 1879-84.

42. Wolpert DM & Flanagan JR (2001). Motor prediction. **Current Biology** 11(18): R729-32.

43. Haruno M, Wolpert DM & Kawato M (2001). MOSAIC model for sensorimotor control and learning. **Neural Computation** 13: 2201-20.

44. Wolpert DM, Ghahramani Z & Flanagan JR (2001). Perspectives and problems in motor learning. **Trends in Cognitive Sciences** 5(11): 487-94.

45. Tong C, Wolpert DM & Flanagan JR (2002). Kinematics and dynamics are not represented independently in motor working memory: Evidence from an interference study. **Journal of Neuroscience** 22(3): 1108-13.

46. Vetter P, Flash T & Wolpert DM (2002). Planning movements in a simple redundant task. **Current Biology** 12: 488-91.

47. Hamilton A & Wolpert DM (2002). Controlling the statistics of action: Obstacle avoidance. **Journal of Neurophysiology** 87: 2434-40.

48. Van Beers R, Wolpert DM & Haggard P (2002). When feeling is more important than seeing in sensorimotor adaptation. **Current Biology** 12: 834-47.

49. Blakemore SJ, Wolpert DM & Frith CD (2002). Abnormalities in the awareness of action. **Trends in Cognitive Sciences** 6: 237-42.

50. Jackson A, Spinks R, Freeman T, Wolpert DM & Lemon RN (2002). Rhythm generation in monkey motor cortex explored using pyramidal tract stimulation. **Journal of Physiology** 541: 685-99.

51. Baraduc P & Wolpert DM (2002). Adaptation to a visuomotor shift depends on the starting posture. **Journal of Neurophysiology** 88: 973-81.

52. Van Beers RJ, Baraduc P & Wolpert DM (2002). Role of uncertainty in sensorimotor control. **Transactions of the Royal Society** 357: 1137-45.

53. Jones K, Hamilton A & Wolpert DM (2002). Sources of signal dependent noise during isometric force production. **Journal of Neurophysiology** 88: 1533-44.

54. Flanagan JR, Vetter P, Johansson RS & Wolpert DM (2003). Prediction precedes control in motor learning. **Current Biology** 13: 146-50.

55. Wolpert DM, Doya K & Kawato M (2003). A unifying computational framework for motor control and social interaction. **Philosophical Transactions of the Royal Society** 358: 693-702.

56. Witney A & Wolpert DM (2003). Spatial representation of predictive motor learning. **Journal of Neurophysiology** 89: 1837-43.

57. Davidson P & Wolpert DM (2003). Motor learning and prediction in a variable environment. **Current Opinion in Neurobiology** 13: 1-6.

58. Shergill SS, Bays PM, Frith CD & Wolpert DM (2003). Two eyes for an eye: The neuroscience of force escalation. **Science** 301: 187.

59. Körding KP & Wolpert DM (2004). Bayesian integration in sensorimotor learning. **Nature** 427: 244-7.

60. Van Beers RJ, Haggard P & Wolpert DM (2004). The role of execution noise in movement variability. **Journal of Neurophysiology**. 91: 1050-63.

61. Baraduc P, Lang N, Rothwell JC, Wolpert DM (2004). Consolidation of dynamic motor learning is not disrupted by rTMS of primary motor cortex. **Current Biology** 14: 252-6.

62. Davidson PR & Wolpert DM (2004). Internal models underlying grasp can be additively combined. **Experimental Brain Research** 155(3): 334-40.

63. Körding KP & Wolpert DM (2004). Probabilistic inference in human sensorimotor processing. **Advances in Neural Information Processing System 16**, ed S.Thrun, L. Saul & B. Schölkopf. MIT Press: 1327-34.

64. Körding KP& Wolpert DM (2004). The loss function of sensorimotor learning. **Proceedings of the National Academy of Sciences** 101(26): 9839-42.

65. Hamilton A, Jones K, & Wolpert DM (2004). The scaling of motor noise with muscle size and motor unit number. **Experimental Brain Research** 157: 417-30.

66. Körding K, Fukunaga I, Howard I, Ingram J & Wolpert DM (2004). A neuroeconomics approach to inferring utility functions in sensorimotor control. **Public Library of Science: Biology** 2(10): e330.

67. Caithness G, Osu R, Bays P, Chase H, Klassen J, Kawato M, Wolpert DM & Flanagan JR (2004). Failure to consolidate the consolidation theory of learning for sensorimotor adaptation tasks. **Journal of Neuroscience** 24(40): 8662-71.

68. Körding KP, Ku S & Wolpert DM (2004). Bayesian Integration in force estimation. **Journal of Neurophysiology** 92: 3161–5.

69. Davidson PR & Wolpert DM (2004). Scaling down motor memories: de-adaptation after motor learning **Neuroscience Letters** 370: 102-7.

70. Hamilton A, Wolpert DM & Frith U (2004). Your own action influences how you perceive another person's action. **Current Biology** 14: 493-8.

71. Cattaneo L, Voss M, Brochier T, Prabhu G, Wolpert DM &.N. Lemon RN (2005). A cortico-cortical mechanism mediating object-driven grasp in humans. **Proceedings of the National Academy of Sciences** 102: 898-903.

72. Schultz J, Friston KJ, O'Doherty J, Wolpert DM & Frith CD (2005). Activation in posterior superior temporal sulcus parallels parameter inducing the percept of animacy. **Neuron** 45: 625-35.

73. Davidson PR, Wolpert DM, Scott SH & Flanagan JR (2005). Common encoding of novel dynamic loads applied to the hand and arm. **Journal of Neuroscience** 25: 5425-9.

74. Bays PM, Flanagan JR & Wolpert DM (2005). Interference between velocity- and position-dependent force-fields indicates that tasks depending on different kinematic parameters compete for motor working memory. **Experimental Brain Research** 163: 400-5.

75. Bays PM, Wolpert DM & Flanagan JR (2005). Perception of the consequences of self-action is temporally tuned and event-driven. **Current Biology** 15: 1125-8.

76. Davidson PR & Wolpert DM (2005). Widespread access to predictive models in the motor system: A short review. **Journal of Neural Engineering** 2: 8313-9.

77. Kitazawa S & Wolpert DM (2005). Rhythmicity, randomness and synchrony in climbing fiber signals. **Trends in Neuroscience** 28(11): 611-9.

78. Nowak DA, Voss M , Huang Y-Z, Wolpert DM & Rothwell JC (2005). High-frequency repetitive transcranial magnetic stimulation over the hand area of the primary motor cortex disturbs predictive grip force scaling. **European Journal of Neuroscience** 22:. 2392–6.

79. Haruno M & Wolpert DM (2005). Optimal control of redundant muscles in step-tracking wrist movements. **Journal of Neurophysiology** 94(6): 4244-55**.**

80. Shergill SS, Samson G, Bays PM, Frith CD & Wolpert DM (2005). Evidence for sensory prediction deficits in schizophrenia. **The American Journal of Psychiatry** 162(12): 2384-6.

81. Oztop E, Wolpert DM & Kawato M (2005). Mental state inference using visual control parameters. **Cognitive Brain Research** 22:129-51.

82. Voss J, Ingram JN, Haggard P & Wolpert DM (2006). Sensorimotor attenuation by central motor command signals in the absence of movement. **Nature Neuroscience** 9(1):26-7.

83. Hamilton A, Wolpert DM, Frith U & Grafton ST (2006). Where does your own action influence your perception of another person's action in the brain? **Neuroimage** 29:524-5.

84. Bays PM, Flanagan JR & Wolpert DM (2006). Attenuation of self-generated tactile sensations is predictive not postdictive. **Public Library of Science: Biology** 4(2). e28.

85. Bays PM & Wolpert DM (2006). Actions and consequences in bimanual interaction are represented in different coordinate systems. **Journal of Neuroscience** 26:7121-6.

86. Körding KP, Wolpert DM (2006). Bayesian decision theory in sensorimotor control. **Trends in Cognitive Sciences**. 10(7):319-26.

87. Harris CM & Wolpert DM (2006). The main sequence of saccades optimizes speed-accuracy trade-off. **Biological Cybernetics** 95(1):21-9.

88. Witney AG & Wolpert. DM (2007)The effect of external loading on prediction in object manipulation. **Neuroscience Letters** 414(1):10-5.

89. Hamilton A, Joyce DW, Flanagan JR, Frith CD, Wolpert DM (2007). Kinematic cues in perceptual weight judgement and their origins in box lifting. **Psychological Research** 71(1):13-21.

90. Voss M, Bays PM, Rothwell JC, Wolpert DM. (2007). An improvement in perception of self-generated tactile stimuli following theta-burst stimulation of primary motor cortex. **Neuropsychologia**. 45(12):2712-7.

91. Wolpert DM (2007). Probabilistic models in human sensorimotor control. **Human Movement Science** 26(4):511-24.

92. Bays PM & Wolpert DM (2007). Computational principles of sensorimotor control that minimise uncertainty and variability. **Journal of Physiology** 578(Pt 2):387-96.

93. Tcheang L, Bays PM, Ingram JN & Wolpert DM (2007). Simultaneous bimanual dynamics are learned without interference. **Experimental Brain Research** 183(1):17-25.

94. Voss M, Ingram JN, Wolpert DM, Haggard P (2008). Mere expectation to move causes attenuation of sensory signals. **PLoS ONE.** 3(8):e2866.

95. Ahmed AA, Wolpert DM, Flanagan JR. (2008). Flexible representations of dynamics are used in object manipulation. **Current Biology**. 18(10):763-8.

96. Ingram JN, Körding KP, Howard IS, Wolpert DM. (2008). The statistics of natural hand movements. **Experimental Brain Research**. 188(2):223-36.

97. Faisal AA, Selen LP, Wolpert DM. (2008). Noise in the nervous system. **Nature Reviews Neuroscience** 9(4):292-303.

98. Howard IS, Ingram JN, Wolpert DM (2008). Composition and decomposition in bimanual dynamic learning. **Journal of Neuroscience** 28(42):10531-40.

99. Franklin DW & Wolpert DM (2008). Specificity of reflex adaptation for task-relevant variability. **Journal of Neuroscience** 28 (52): 14165-75.

100. Faisal A & Wolpert DM (2009). Near optimal combination of sensory and motor uncertainty in time during a naturalistic perception-action task. **Journal of Neurophysiology** 101:1901-1912.

101. Braun DA, Aertsen A, Wolpert DM & Mehring C (2009). Motor task variation induces structural learning. **Current Biology** 19(4):352-7.

102. Howard IS, Ingram JN & Wolpert DM (2009) A modular planar robotic manipulandum with end-point torque control. **Journal of Neuroscience Methods** 181: 199–211

103. Nagengast AJ, Braun DA & Wolpert DM (2009) Optimal Control Predicts Human Performance on Objects with Internal Degrees of Freedom. **PLoS Computational Biology** 5(6): e1000419.

104. Braun DA, Aertsen A, Wolpert DM & Mehring C (2009) Learning optimal adaptation strategies in unpredictable motor tasks. **Journal of Neuroscience** 29(20):6472-6478

105. Braun DA, Ortega PA & Wolpert DM (2009) Nash equilibria in multi-agent motor interactions. **PLoS Computational Biology** 5 (8):e1000468

106. Howard IS, Ingram JN, Körding KP & Wolpert DM (2009) The statistics of natural movements are reflected in motor errors. **Journal of Neurophysiology** 102:1901-1910

107. Resulaj A, Kiani R, Wolpert DM & Shadlen MN (2009) Changes of mind in decision-making. **Nature**, 461: 263-266.

108. Selen LPJ, Franklin DW & Wolpert DM (2009) Impedance control reduces instability that arises from motor noise. **Journal of Neuroscience** 29 (40):12606-16

109. Ahmed AA & Wolpert DM (2009) Transfer of dynamic learning across postures. **Journal of Neurophysiology.** 102 (5): 2816-24

110. Braun DA, Waldert S, Aertsen A, Wolpert DM & Mehring C (2010). Structure learning in a sensorimotor association task. **PLoS ONE** 5(1): e8973

111. Braun DA, Mehring C & Wolpert DM (2010). Structure learning in action. **Behavioural Brain Research** 206: 157-165

112. Ingram JN, Howard IS, Flanagan JR & Wolpert DM (2010). Multiple grasp-specific representations of tool dynamics mediate skilful manipulation. **Current Biology** 20:618-623

113. Wolpert DM & Flanagan JR (2010). Motor Learning. **Current Biology** 20 (11): R467-472

114. Wolpert DM & Flanagan JR (2010) Q&A: Robotics as a tool to understand the brain. **BMC Biology** 8:92

115. Nagengast AJ, Braun DA & Wolpert DM (2010) Risk-sensitive optimal feedback control accounts for sensorimotor behavior under uncertainty. **PLoS Computational Biology** 6(7), e1000857.

116. Howard IS, Ingram JN & Wolpert DM (2010). Context-dependent partitioning of motor learning in bimanual movements **Journal of Neurophysiology,** 104(4), 2082-2091

117. Teufel C, Kingdon A, Ingram JN, Wolpert DM & Fletcher PC (2010). Deficits in sensory prediction are related to delusional ideation in healthy individuals **Neuropsychologia**, 48(14), 4169-4172.

118. Braun, DA, Nagengast AJ & Wolpert DM. (2011). Risk-sensitivity in sensorimotor control **Frontiers in human neuroscience**, 5, 1-10.

119. Howard IS, Ingram JN & Wolpert DM (2011). Separate representations of dynamics in rhythmic and discrete movements: Evidence from motor learning **Journal of Neurophysiology** 105:1722-1731

120. Nagengast AJ, Braun DA & Wolpert DM (2011). Risk-sensitivity and the mean-variance trade-off: decision making in sensorimotor control **Proceedings of the Royal Society B: Biological Sciences.**

121. Turnham E, Braun D & Wolpert DM (2011). Inferring Visuomotor Priors for Sensorimotor Learning. **PLoS Computational Biology** 7, 7(3), 1-13.

122. Orbán G & Wolpert DM (2011) Representations of uncertainty in sensorimotor control. **Current Opinions in Neurobiology** 21:1-7

123. Nagengast AJ, Braun DA & Wolpert DM (2011) Risk-sensitivity in a motor task with speed-accuracy trade-off. **Journal of Neurophysiology** 105: 2668–2674.

124. Ingram JN & Wolpert DM (2011) Naturalistic approaches to sensorimotor control. **Progress in Brain Research** 191:3-29

125. Braun DA, Ortega PA & Wolpert DM (2011) Motor coordination: When two have to act as one. **Experimental Brain Research**

126. Ingram JN, Howard IS, Flanagan JR & Wolpert DM (2011) A single-rate context-dependent learning process underlies rapid adaptation to familiar object dynamics. **PLoS Computational Biology** 7(9): e1002196

127. Wolpert DM, Diedrichsen J & Flanagan JR (2011) Principles of sensorimotor learning **Nature Reviews Neuroscience** 12:739-751

128. Dimitriou, M., Franklin, D. W., & Wolpert, D. M. (2012). Task-dependent coordination of rapid bimanual motor responses. J**ournal of Neurophysiology,** 107(3), 890–901.

129. Selen, L. P. J., Shadlen, M. N., & Wolpert, D. M. (2012). Deliberation in the Motor System: Reflex Gains Track Evolving Evidence Leading to a Decision. **Journal of Neuroscience**, 32(7), 2276–2286.

130. Turnham, E. J. A., Braun, D. A., & Wolpert, D. M. (2012). Facilitation of learning induced by both random and gradual visuomotor task variation. **Journal of Neurophysiology,** 107(4), 1111–1122

INVITED TALKS 1994-

1994	Mar	Seminar	Department of Psychology, Queen's University, Canada
	Mar	Seminar	Centre for Complex Systems, Florida Atlantic University, USA
	Apr	Invited talk	New England Sequencing and Timing Workshop, USA
	Jun	Invited talk	World Congress of Neural Networks, San Diego
	Jul	Seminar	Applied Psychology Unit, Cambridge
	Dec	Seminar	Centre for biological and computational learning, MIT
1995	Jan	Seminar	Department of Psychology, University of Connecticut
	Mar	Seminar	Department of Cognitive Sciences, Boston University
	Apr	Seminar	Department of Engineering, Boston University
	Jun	Seminar	Department of Clinical Neurology, Charing Cross Hospital
	Dec	Invited talk	Society for Neuroscience Symposium
1996	Jan	Seminar	Rehabilitation Department, University of Dusseldorf, Germany
	Mar	Invited talk	MRC Applied Psychology Unit, Cambridge
	Mar	Seminar	Department of Cognitive Neurology, Institute of Neurology
	Jun	Seminar	Department of Biology, University of Greenwich
	Jun	Invited talk	Biomechanics and the Neural Control of Movement, Ohio, USA
	Dec	Invited talk	Society for Neuroscience Symposium
1997	Feb	Seminar	Department of Psychology, University of North Wales, Bangor
	Mar	Invited talk	Sensorimotor special interest group, The Physiological Society, Dublin
	May	Seminar	Department of Physiology, University of Leuven, Belgium
	Oct	Invited talk	Vision for Reach and Grasp, University of Minnesota
	Oct	Seminar	Institute of Cognitive Neuroscience, UCL
1998	Jan	Discussant	CIBA/Novartis workshop on Sensory Guidance of Movement
	Mar	Invited talk	Complex inaugural meeting, UCL
	Jun	Seminar	Department of Psychology, University of Reading
	Oct	Seminar	Department of Psychology, University of Birmingham
	Nov	Seminar	Department of Physiology, University of Oxford.
1999	Jan	Invited talk	Experimental Psychology Society workshop on Motor control
	Jan	Invited talk	British Neuroscience Association meeting, Paris.
	Jan	Seminars	Department of Physiology, Umea University, Sweden
	May	Seminar	Clinical Neurophysiology, National Hospital London
	May	Invited talk	1st Goettingen Conference of the German Society for Neuroscience
	Jun	Seminar	Neuroinformatic group, ETH, Zurich
	Aug	Invited talk	10th International Conference on Perception and Action, Edinburgh
	Sep	Invited talk	Meeting of the European Brain and Behaviour Society, Rome
	Nov	Invited talk	CIBA/Novartis Meeting on Chronic Fatigue Syndrome
	Nov	Seminar	Department of Physiology, St Andrews University
2000	Jan	Invited talk	PRESTO workshop, Shonan Village, Japan
	Jan	Seminar	ATR, Kyoto, Japan
	Mar	Seminar	University of Birmingham
	Mar	Seminar	California Institute of Technology
	Mar	Seminar	University of California in San Diego
	Jun	Invited talk	Novartis meeting of Chronic Fatigue, London
	Sep	Tutorial	Neuroscience for Neurologists, Cambridge University
2001	Jan	Seminar	University of Rochester
	Mar	Invited talk	INSERM U571, Marseille
	Mar	Invited talk	INSERM U571, Lyon
	Mar	Invited talk	ESF conference, Granada
	Apr	Invited talk	Learning meeting, Snowbird, Utah
	Sep	Invited talk	European Brain and Behaviour Society, Marseilles
	Sep	Invited talk	Workshop on imitation learning, London
	Sep	Invited talk	World Congress of Neuroinformatics, Vienna
	Nov	Seminar	Department of Psychology, Berkeley
	Dec	Seminar	Sussex University
	Dec	Invited talk	Royal Society Meeting
	Dec	Discussant	Novartis meeting
2002	Jan	Seminar	Institute of Cognitive Neuroscience
	Jan	Tutorial	Neural Control of Motor Behaviour course, Umea, Sweden,
	Jan	Invited talk	Cognitive neuroscience of action, Bavaria

	Feb	Workshop	Stirling University
	Feb	Seminar	Glasgow University
	Mar	Seminar	University of Minnesota
	Mar	Seminar	Plymouth University
	Apr	Invited talk	MECCA, Max-Planck, Munich
	May	Seminar	Experimental Psychology, University of Cambridge
	Jun	Seminar	Erasmus University, Rotterdam
	Jul	Invited talk	SAMBA, Bielefeld
	Sep	Invited talk	INSERM U571, Lyon
	Oct	Invited talk	Sony Research, Paris
	Oct	Invited talk	University of Tübingen
	Dec	Invited talk	OECD Life long learning workshop, Tokyo
2003	Mar	Invited talk	University of Tübingen
	Apr	Invited talk	Euresco meeting, Naples, Italy
	May	Invited talk	Nottingham University
	May	Invited talk	Charing Cross Hospital
	Jun	Invited talk	Nobel Institute, Stockholm
	Jun	Tutorial	Cognitive Science Summer School, Lake Tahoe
	Aug	Tutorial	Computational Neuroscience Summer School, Obidos, Portugal
	Sep	Invited talk	NASA Intelligent Agents in Virtual Reality Systems meeting, London
	Sep	Tutorial	Autumn School in Cognitive Neuroscience, Oxford University
	Oct	Invited talk	Cambridge Government Policy Committee
	Dec	Invited talk	Northwestern University, Chicago
	Dec	Invited talk	British Neuroscience Association Christmas Symposium, London
2004	Jan	Invited talk	OECD Life long learning workshop, Tokyo
	Jan	Invited talk	FMRIB, Oxford University
	Feb	Invited talk	Bielefeld University
	Mar	Invited talk	Japan Physiological Society, Okazaki
	Mar	Invited talk	Computational and Systems Neuroscience Meeting, Cold Spring Harbor,
	May	Seminar	University of Newcastle
	Jun	Invited talk	Physiology, University of Oxford
	Jun	Invited talk	University of Tübingen
	Jul	Seminar	Engineering Dept, Imperial College London
	Sep	Keynote	Neural Computation and Psychology Workshop, Plymouth
	Oct	Seminar	Department of Engineering, University of Cambridge
	Sep	Tutorial	Summer School in Executive Functions, Gunne, Germany
	Oct	Invited talk	Novartis Foundation Symposium, Percept, decision, action, Trieste
	Oct	Seminar	Department of Engineering, University of Oxford
	Oct	Invited talk	Symposium of the British Society for Clinical Neurophysiology
	Nov	Seminar	Anatomy, UCL
	Nov	Seminar	CNRS, Marseille
	Nov	Seminar	University of Birmingham
	Nov	Seminar	University of Edinburgh
	Nov	Seminar	New York University
	Dec	Tutorial	NIPS meeting, Vancouver
2005	Jan	Invited talk	Lifelong Learning Network Meeting, Tokyo, Japan
	Jan	Invited talk	Probabilistic Models of Cognition, IPAM, UCLA
	Feb	Seminar	Bristol University
	Mar	Seminar	Reading University
	Mar	Public lecture	Annual Swartz Foundation Mind-Braan lecture, Stony Brook University
	May	Invited talk	From Action to Cognition meeting, Collège de France, Paris
	May	Seminar	CBBI, Cambridge
	Jun	Keynote	McKnight Neuroscience Meeting, Aspen, Colorado
	Jun	Invited talk	Computational Vision in Machine /Neural Systems, York University, Toronto
	Aug	Keynote	International Joint Conference on Artificial Intelligence, Edinburgh
	Sep	Keynote	German Association of Sports Scientists, Leipzig
	Sep	Invited talk	ERNSI, Brussels
	Oct	Seminar	MRC CBU, Cambridge
	Oct	Invited talk	Rank symposium on Active Vision, Grassmere, UK
	Nov	Keynote	Computational Cognitive Neuroscience, Washington
	Nov	Keynote	Computational Motor Control Symposium, Washington

	Nov	Seminar	Dept Zoology, Cambridge
	Nov	Seminar	Dept Physics, Cambridge
	Dec	Keynote	Distinguished Visitor lecture, Queens University Kingston, Canada
	Dec	Public lecture	Crick Prize Lecture, Royal Society
	Dec	Invited talk	Physiological Society, London
2006	Jan	Invited talk	BIBA, Paris
	Feb	Invited talk	Bernstein Center for Computational Neuroscience, Freiburg
	Feb	Seminar	University of Giessen
	Feb	Seminar	Horizon meeting Cambridge
	Mar	Seminar	Imperial College London
	Mar	Public lecture	Philosophical Society, Cambridge
	Mar	Invited talk	Princeton
	May	Invited talk	York University, Canada
	Jul	Invited talk	Attention & Performance, France
	Jul	Public lecture	International Science Summer School, Cambridge
	Sep	Public lecture	Alumni weekend talk, Cambridge
	Oct	Invited talk	Cambridge University Science Productions
	Dec	Invited talk	GlaxoSmithKline seminar on social cognition, UCL
2007	Jan	Invited talk	University of Warwick
	Mar	Invited talk	Trinity College Science Society
	Feb	Invited talk	University of Warwick
	Apr	Invited talk	Duke University
	May	Keynote	Annual Brooks Lecture, Harvard University
	May	Keynote	Annual Cognitive Science Lectures, Royal Academy of Science, Holland
	May	Keynote	European Workshop on Movement Science
	Jun	Keynote	Computational Motor Control meeting, Israel
	Jun	Seminar	Adrian Seminar, University of Cambridge
	Jun	Keynote	Robotics, Science and Systems conference, Atlanta
	July	Invited talk	Sapient Mind, Cambridge
	Jul	Public lecture	International Science Summer School, Cambridge
	Sep	Public lecture	Alumni, Trinity College, Cambridge
2008	Jan	Invited talk	Psychology, UCL
	Apr	Invited talk	University of Leicester
	May	Keynote	Cognitive Neuroscience Conference Nijmegen
	Jun	Keynote	European Network for the Advancement of Artificial Cognitive Systems
	Jul	Invited talk	Gordon meeting on Sensory Coding, Il Ciocco, Lucca, Italy
	Jul	Invited talk	Mind in the Brain meeting, Royal Society
	Jul	Invited talk	Simpler Cognitive Systems, UCL
	Dec	Keynote	NIPS, Vancouver
	Dec	Invited talk	Perceptual Learning, Motor Learning, and Automaticity, Amsterdam
2009	Feb	Invited talk	Computational and Systems Neuroscience Meeting, Salt Lake City, Utah
	Mar	Invited talk	Belief meeting, Trinity College, Cambridge
	Mar	Invited talk	Neuropsychiatry group, Addenbrookes Hospital, Cambridge
	Mar	Invited talk	German Neuroscience meeting, Goettingen
	May	Keynote	IEEE International Conference on Robotics and Automation, Kobe, Japan
	Jun	Tutorial	Okinawa Computational Neuroscience Course, Japan
	Sep	Keynote	European Society of Movement Analysis, London
	Sep	Invited talk	Annual Retreat of the Center for the Neural Basis of Cognition, Pittsburgh
	Oct	Keynote	Fred Kavli Distinguished International Scientist Lecture, Society for Neuroscience, Chicago
	Nov	Keynote	Canadian Society for Psychomotor Learning and Sport Psychology, Toronto
	Nov	Invited talk	Psychology, University of Glasgow
	Nov	Invited talk	Psychology, University of Bristol
	Dec	Invited talk	Institute of Neurology, UCL, London
2010	Mar	Public Lecture	Plenary Lecture at the Cambridge Neuroscience meeting
	Mar	Invited talk	Gatsby Unit Quinquennial Symposium
	Apr	Invited talk	NETI workshop, Austin, Texas
	Apr	Invited talk	University of Pennsylvania
	May	Invited talk	GRSNC Symposium, Montreal
	May	Invited talk	Computational Workshop, Rauischholzhausen, Germany
	May	Public Lecture	U3A

	June	Invited talk	HHMI Janelia Farm, Virginia
	July	Tutorial	CEU Summer School, Budapest
	July	Tutorial	Cambridge Science Summer School
	July	Tutorial	CSH-Asia Neuroscience Summer School, Suzhou, China
	Sep	Invited talk	Mathematical and Computational Neuroscience, Oxford
	Oct	Invited talk	Wolfson College Cambridge Science Society
	Nov	Invited talk	Institute of Philosophy, London
	Dec	Invited talk	British Computer Society SGAI Annual Conference on AI, Cambridge
2011	Mar	Keynote	Inaugural International Academy of Sportology, Tokyo
	Mar	Invited talk	Leeds University
	Mar	Invited talk	Sheffield University
	Apr	Invited talk	Center for Brain Science, Harvard University
	May	Invited talk	Lemanic Neuroscience Seminars, Lausanne
	Jul	Keynote	Annual Festival Lecture, University of Surrey
	Jul	Public	TEDGlobal Talk, Edinburgh
	July	Invited talk	MPI Autonomous system, Tuebingen
	Sept	Invited talk	Champalimaud Neuroscience Institute, Lisbon
	Oct	Keynote	Autumn School on Perception, Action, and Control, Nijmegen
	Nov	Invited talk	HHMI Janelia Farm
	Nov	Invited talk	Johns Hopkins University
2012	Mar	Keynote	Annual Queen Square Student Symposium, Institute of Neurology, UCL
	Apr	Invited talk	Wordfest, Cambridge