CURRICULUM VITAE

Daniel Mark Wolpert FMedSci FRS

Professor of Neuroscience
Zuckerman Mind Brain Behavior Institute,
Department of Neuroscience,
Columbia University,
New York, United States

Email wolpert@columbia.edu
Homepage www.wolpertlab.org

Education

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
Physiology, University of Oxford (Supervisor: John Stein/Chris Miall)

1992-95 Postdoctoral Associate, Department of Brain & Cognitive Science
McDonnell-Pew Fellow in Cognitive Neuroscience
Massachusetts Institute of Technology (Supervisor: 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

2005-18 Professor of Engineering (1875), Department of Engineering, University of Cambridge
Professorial Fellow, Trinity College, University of Cambridge

2012-18 Wellcome Trust Senior Investigator

2013-18 Royal Society Noreen Murray Research Professor

2018- Research Professor (10%), Department of Engineering, University of Cambridge

2018- Professor of Neuroscience, Zuckerman Mind Brain and Behavior Institute, Columbia University

2021- Vice-chair, Department of Neuroscience, Columbia University

Awards and Honors

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	Royal Society Francis Crick Prize Lecture
2010	Minerva Foundation Golden Brain Award
2012	Fellow of the Royal Society (FRS)
2020	Royal Society Ferrier Medal
2022	Hermann von Helmholtz Award (International Neural Network Society)

Selected Lectures

2005	Crick Prize Lecture, Royal Society
2005	Swartz foundation Mind-Brain Lecture, Stony Brook University
2005	Distinguished Visitor lecture, Queens University Kingston, Canada
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
2011	Annual Festival Lecture, University of Surrey
2016	Talairach Lecture, Organization for Human Brain Mapping
2021	Royal Society Ferrier Lecture

Selected Public Lectures

2006	Philosophical Society, Cambridge
2006-7	International Science Summer School, Cambridge
2006-7	Alumni talk, Cambridge
2010	Plenary Lecture, Cambridge Neuroscience
2011	TEDGlobal Talk, Edinburgh
2012	THiNK, Goa, India
2015	Pint of Science, Cambridge
2016	Athens Festival of Science
2018	Royal Institution, London

PROFESSIONAL CONTRIBUTIONS

Membership of professional bodies

American Physiological Society
American Society for Neuroscience
Society for the Neural Control of Movement

Editorial Board

2002-	Cerebellum
2002-18	Experimental Brain Research
2003 -10	Editorial Board, Trends in Cognitive Sciences
2005	Guest Editor, Current Opinion in Neurobiology
2011-18	Editor: Encyclopedia of Motor Control
2017-	Editorial Board, Current Opinion in Neurobiology

Selected External Committees

2008	CAPNets International Advisory Board
2009-12	Gatsby Computational Neuroscience Unit UCL, Advisory Board
2010-15	Expert Review Group, Neuroscience and Mental Health, Wellcome Trust
2019-21	Lundbeck Foundation Grants & Prize Panel
2024-	Gatsby Computational Neuroscience Unit UCL, Advisory Board

Ongoing Research Support

07/2026 – 06/2031	Simons Collaboration on Ecological NEuroscience (SCENE) Simons Foundation Total awarded amount ~$43.1M (subaward $1,830,000)
05/01/21-04/30/29	Development of Mechanisms Underlying Human Motor Learning R35 NS122266 NIH/NINDS $439,384 annual direct costs PI: Bastian Co-Investigator, 10%
2/15/21 – 1/31/27	Computations in human motor learning R01 NS117699 NIH/NINDS $370,000 annual direct costs PI: Wolpert 40%

Previous Grants (over £50K)

1996-1999	Wellcome project grant (3 years) Sensorimotor integration and planning in human motor control DM Wolpert £211,991
1997-2000	MRC project grant (3 years) Motor planning and representation in the cortical control of movement DM Wolpert & RN Lemon £223,979
1998-2001	MRC Co-operative Group (3 years) Neural control of movement RN Lemon, DM Wolpert, J Rothwell, P Kirkwood & P Haggard £110,000
1998-2001	BBSRC project grant (3 years) Sensorimotor representation and manual action P Haggard & DM Wolpert £140,000
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

2000-2004	Marie Curie Training Site, European Commission (4 years) Neural control of movement in health and disease DM Wolpert €240,000
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
2001-2006	Wellcome Programme Grant (5 years) Computational human sensorimotor control DM Wolpert £795,500
2003-2006	Riken Institute, Japan (3 years) Controlling the statistics of action: Noise and uncertainty in control DM Wolpert ¥10,000,000 (£50,000)
2003-2008	MRC Co-operative Group (3 years) Neural control of movement RN Lemon, DM Wolpert, J Rothwell, P Kirkwood & P Haggard £278,000
2003-2006	Human Frontiers Science Program Research Grant (3 years) Noise and uncertainty in sensorimotor control JR Flanagan (PI), S Kitazawa, R Shadmehr, DM Wolpert $1,350,000
2009-2009	Nokia (6 months) Electro-tactile interface £54,457
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
2006-2012	Wellcome Programme Grant (5 years) Computational human sensorimotor control DM Wolpert £1,158,000
2011-2014	Human Frontiers Science Program Research Grant (3 years) A unifying framework for decision making and motor control DM Wolpert (PI), MN Shadlen $750,000
2012-2018	Wellcome Trust Senior Investigator Award Computations in sensorimotor control DM Wolpert £1,803,129

2013-2018 Royal Society Noreen Murray Research Professorship in Neurobiology
DM Wolpert
£510,376

2017 – 2022 BRAIN Initiative Team Circuits Programs grant
Computational and circuit mechanisms underlying motor control
U19 NS104649
NIH/NINDS
$2,688,952 annual direct costs
PI: Costa
Co-Investigator, 13.3%

2019-2024 Computational and circuit mechanisms of decision making
R01 NS113113
NIH/NINDS
$266,723 annual direct costs
PI: Shadlen
Co-Investigator, 2.5%

2020-2025 Investigating quantitative signatures of autism in toddlers
R01 MH121605
NIH/NIMH
$257,535 annual direct costs
PI: Denisova
Co-Investigator, 10%

2022 – 2025 Center of Excellence in the Neuroscience of Decision Making at Columbia University
FA9550-22-1-0337
Co-PIs: Sajda, P, Wolpert D, Shadlen M, Wang Q & Feiner S
Air Force Office of Scientific Research (AFOSR)
Total Award Amount (including Indirect Costs): $5,000,000

ACADEMIC SUPERVISION

Postdoctoral fellows supervised

1996-99	Susan Goodbody
1997-99	Tobe Freeman
1998-02	Robert van Beers
2000-02	Pierre Baraduc
2000-02	Kelvin Jones
2000-	James Ingram
2002-03	Paul Davidson
2002-04	Konrad Körding
2002-04	Antonia Hamilton
2003-04	Mashiko Haruno
2003-04	Daniel Joyce
2003-05	Martin Voss
2003-05	Mike Cassidy
2003-12	Ian Howard
2004-06	Lili Tcheang
2006-08	Alaa Ahmed
2006-09	Aldo Faisal
2006-09	Luc Selen
2007-10	Daniel Braun
2007-15	David Franklin
2009-10	Stephen Wall
2010-12	Gergo Orban
2010-12	Michael Dimitriou
2012-14	Andrew Lamperski
2013-15	Ronald van den Berg
2013-15	Sang-Hoon Yeo
2013-15	Scott Yang
2015-18	Daniel McNamee
2016-18	Matthew Kerr
2016-18	Greg Sotiropoulos
2018-19	Tsuyoshi Ikegami
2018-23	Evan Cesanek
2018-23	Zhaoran Zhang
2018-23	Anne Loffler
2019-22	James Heald
2022-25	Sabya Shivkumar
2024-	Anvesh Naik
2024-	Xenia Goffman
2024-	Carlos Vargas

PhD students supervised

1997-00	Sarah Blakemore	Wellcome neuroscience programme (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
2006-11	James Ingram	Part-time PhD
2007-10	Arne Nagengast	Medical Research Council
2007-08	Hugo Vincent	Cambridge Commonwealth Scholar
2008-12	Edward Turnham	MD PhD program
2008-09	Arbora Resulaj	Janelia-Cambridge PhD Program
2011-12	Diana Burk	Janelia-Cambridge PhD Program
2011-15	Luigi Acerbi	
2011-15	Noham Wolpe	Cambridge MD/PhD Program
2014-18	Mohsen Sadeghi	Yousef James Scholarship
2014-19	Hannah Sheahan	Cambridge-Rutherford Memorial PhD Scholarship,
2015-19	James Heald	EPSRC studentship
2025-	Sepehr Sima	NBB program

TEACHING ACTIVITY

1989-92 Oxford University, Supervisions, Neurophysiology

1992-95 MIT, Graduate Lectures on Computational Motor Control

1995-05 University College London
- Coordinator EU Marie Curie Training Site for Neural Control of Movement
- Lectures in Psychology, MSc in Neuroscience, Computational Neuroscience Course, MSc in Clinical Neuroscience & Neurocomputation course

2005-13 University of Cambridge
Created the Bioengineering undergraduate and Masters program
Chair of the Bioengineering teaching committee
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
- Teaching prize: Best 3rd year lecture, Department of Engineering

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

2010- Regular graduate teaching at computational neuroscience summer schools in Woods Hole, Lisbon and Cape Town.

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 (2012). 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 & Flanagan JR (2014). Forward models. **Oxford Companion to Consciousness.**
14. Wolpert, DM (2015) Computations in Sensorimotor Learning. **Cold Spring Harb Symp Quant Biol**, 024919.
15. Wolpert DM & Bastian A (2021). Chapter 33: The organization and planning of movement. In: Kandel ER, Koester JD, Mack SH & Siegelbaum SA. **Principles of Neural Science** (6th edition), McGraw-Hill.

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.

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