Curriculum Vitae

Personal Details

Dr. Richard E. Turner
Computational and Biological Learning Lab
Department of Engineering
University of Cambridge
email: ret26@cam.ac.uk
publications: google scholar link
webpage: cbl.eng.cam.ac.uk/Public/Turner/

Education and Qualifications

2010 Ph.D.
Gatsby Computational Neuroscience Unit, University College London
Dissertation title: Statistical models for natural sounds
Area: Machine learning and theoretical neuroscience
Advisor: Prof. Maneesh Sahani

2003 M.Sci, B.A. Hons
Gonville and Caius College, University of Cambridge, 2003
Natural Sciences, specialism experimental and theoretical physics
First Class Honours, awarded Duncan Bruce Memorial Prize

Professional History

2018 - *Reader in Machine Learning*,
Department of Engineering, University of Cambridge

2018 - *Visiting Research Scientist*
Microsoft Research Cambridge (one day a week)

2012 - 2018 *University Lecturer in Computer Vision and Machine Learning*,
Department of Engineering, University of Cambridge

2015 - *Full Fellow*, Christ's College, University of Cambridge

2012 - 2015 *Bye Fellow*, Christ's College, University of Cambridge

2010 - 2012 *EPSRC Postdoctoral Research Fellow*, Computational and Biological Learning Lab, Department of Engineering, University of Cambridge

2010 - 2011 *International Scholar,* Laboratory for Computational Vision, Center for Neural Science, NYU, USA

2003 - 2004 *Research Assistant*, Centre for the Neural Basis of Hearing, University of Cambridge

2003 - 2004 *Undergraduate Supervisor*, Gonville and Caius College, University of Cambridge.

Other Activities, Appointments, and Affiliations

Reviewing (Journals)

Journal of the Acoustical Society of America, Journal of Machine Learning Research, Machine Learning, Computer Speech and Language, IEEE Transactions on Pattern Analysis and Machine Intelligence, IEEE Transactions on Signal Processing, PLoS Computational Biology

Reviewing (Conferences)

2017 Area Chair International Conference on Learning Representations
2013 Area Chair Neural Information Processing Systems
2011 - 2016 Reviewer Neural Information Processing Systems

2011	Reviewer International Conference on Acoustic Speech and Signal Processing (ICASSP conference)
2011	Artificial Intelligence and Statistics
2015	Uncertainty and Artificial Intelligence (UAI conference)
2010 - 2013	Computational and Systems Neuroscience (CoSyNe conference)

Reviewing (Institutions and Grants)

2017	EPSRC Grant
2016	Quinquennial Reviewer of MRC Institute of Hearing Research, Nottingham
2012	Action on Hearing Loss

Professional Memberships

2010 -	Member of the IEEE
2010 -	Member of the European Association for Signal Processing
2010 -	Member of the British Society of Audiology
2013 -	Member of the Cambridge Big Data Strategic Initiative

Organisation (not including departmental organisation)

2016 - 2018	Member of Signal and Data Analytics for Machine Learning Special Area Team
2013 -	Founder of Hearing Research @ Cambridge an inter-department (and inter-institution) network for hearing research in Cambridge. This has involved the following activities: 1. Website setup and management: www.hearing-research.group.cam.ac.uk 2. Meeting organisation (October 2013, St. John's College attended by 40 people, and December 2014) Member of the Cambridge
2013 -	Member of the Big-Data Strategic Initiative
2007	Co-organised the workshop “Beyond Simple Cells: Probabilistic models for visual cortical processing”, Neural Information Processing Systems conference, Whistler, Canada, 2007.
2007	Organised a five day workshop “Advanced Probabilistic Techniques”, Gatsby Unit, London, 2007.

Prizes and awards

2017	Google Focussed Research Award (see grants)
2017 - 2018	Baroness de Turckhiem Fund Award
2016	Keynote Lecture IEEE International Workshop on Machine Learning for Signal Processing
2016	Google Focussed Research Award (see grants)
2016	Best paper award, Neural Information Processing Systems, Time-series workshop
2016	Facebook AI Research Partnership award winner (see grants)
2015	Winner of Cambridge University Students’ Union Outstanding Lecturer Award
2015 - 2017	Google European Research Fellowship Award
2015 - 2018	EPSRC Research Grant
2013 - 2015	EPSRC First Grant
2013	Google Research Award
2013 - 2014	Baroness de Turckhiem Fund Award
2011	Schwartz Foundation Travel Bursary
2010 - 2012	EPSRC Postdoctoral Research Fellowship
2007	Best Student Paper Award, ICA Conference

2003 Duncan Bruce Memorial Prize for Physics, University of Cambridge

2001 - 2003 Gonville and Caius College Scholarships

Grants Awarded

2017
Google Focussed Research Award (unrestricted gift)
Machine Learning for Climate Science
Dr. R. E. Turner
£101,455

2017 - 2018
Baroness de Turckheim Fund Award, Trinity College (2 years)
An objective method for alleviating cases of poor hearing by cochlear implant listeners
Dr. Robert Carlyon (PI), Prof. Manohar Bance and Dr. R. E. Turner (co-investigators)
£22,233

2016
Google Focussed Research Award (unrestricted gift)
Reliable and Robust Deep Reinforcement Learning
Dr. R. E. Turner
£57,000

2016
Facebook AI Partnership Award,
Dr. R. E. Turner (PI), Prof. C. Rasmussen and
Prof. Z. Ghahramani
GPU server gift worth £50,000

2015 - 2017
Google European Doctoral Fellowship Award (3 years)
Dr. R. E. Turner (for Thang Bui)
£80,000

2015 - 2018
EPSRC Research Grant (3 years)
Machine Learning for Hearing Aids: Intelligent Processing and Fitting
Dr. R. E. Turner (PI) and Prof. Brian Moore (co-investigator)
£720,000

2015 - 2016
Advanced Bionics Research Award (2 years)
New psychophysical tests for evaluating cochlear implant processing strategies
Dr. Robert Carlyon (PI) and Dr. R. E. Turner (co-investigator)
£100,000

2013 - 2015
EPSRC First Grant Award (2 years)
Unifying audio signal processing and machine learning: a fundamental framework for machine hearing
Dr. R. E. Turner
£125,000

2013
Google Research Award (unrestricted gift)
Recognising audio content and removing noise using audio textures
Dr. R. E. Turner
£40,000

2013 - 2014
Baroness de Turckheim Fund Award, Trinity College (2 years)
Improving the evaluation of cochlear implants using machine learning
Dr. R. E. Turner (PI) and Dr. Robert Carlyon (co-investigator)
£18,000

2010 - 2012
EPSRC Postdoctoral Research Fellowship (3 years)
Probabilistic Auditory Scene Analysis
Dr. R. E. Turner
£230,000

Invited presentations

2018	Invited Tutorial	Machine Learning Summer School, Madrid
	Invited Tutorial	International Conference on Latent Variable Analysis and Signal Separation
	Oral	International Conference on Machine Learning, Stockholm, Sweden*
	Oral	International Conference on Machine Learning Stockholm, Sweden*
	Short Oral	NIPS 2018 (forthcoming)*
2017	Invited Talk	Amazon Research Cambridge
	Invited Tutorial	University of Sheffield
	Invited Talk	University of Sheffield
	Invited Talk	Amazon Berlin
	Invited Talk	Alan Turing Institute, London
	Invited Talk	University College London
	Invited Talk	Environmental Science in the Big-Data Era, Cambridge
	Oral	International Conference on Learning Representations, Toulon, France*
	Oral	International Conference on Machine Learning, Sydney, Australia*
	Oral	International Conference on Machine Learning Sydney, Australia*
2016	Invited Tutorial	Imperial College London
	Keynote	IEEE International Workshop on Machine Learning for Signal Processing, Salerno, Italy, 2016
	Invited panelist	Approximate Inference Workshop, Neural Information Processing Systems, Barcelona, Spain
	Invited Talk	Google DeepMind, London
	Invited Talk	University of Bern, Switzerland
	Invited Talk	Royal Society, London
	Invited Talk	Queen Mary University, London (Bioscience)
	Invited Talk	Imperial College London (Computer Science)
	Invited Talk	Imperial College London (Bioengineering)
	Invited Talk	MRC Brain and Cognition Sciences Unit (Chaucer Cl.)
	Oral	International Conference on Machine Learning, New York, USA*
	Oral	International Conference on Machine Learning, New York, USA*
2015	Short Oral	Neural Information Processing Systems, Montreal, Canada*
	Short Oral	Neural Information Processing Systems, Montreal. Canada*
	Invited Talk	Gatsby Computational Neuroscience Unit, UCL
	Invited Talk	Queen Mary University (Centre for Digital Music)
	Invited Talk	University of Denmark, DTU, Copenhagen
	Invited Talk	Microsoft Research Cambridge
	Invited Tutorial	MRC Brain and Cognition Sciences Unit
	Invited Talk	Computer Science Department, Cambridge
2014	Seminar	Hearing Group, Cambridge
	Invited Tutorial	University of Sheffield
	Invited Talk	University of Sheffield
	Invited Talk	Bernstein conference, Göttingen, Germany
	Invited Talk	Microsoft Research Cambridge
	Invited Talk	Institute for Sound and Vibration Research, University of Southampton
	Invited Talk	Toshiba Research, Cambridge

2013	Invited Talk	Institute for Hearing Research, Nottingham
	Seminar	Hearing Group, Cambridge
	Invited Talk	Queen Mary University, Listening in the Wild Workshop
	Invited Talk	British Festival of Neuroscience, Barbican Centre
	Invited Talk	MRC Cognition and Brain Sciences Unit
2012	Invited Talk	European Research Network for System Identification, Maastricht, Netherlands
	Invited Talk	University of Bern, Switzerland
	Invited Talk	Hearing Group, Cambridge
2011	Short Oral	Neural Information Processing Systems, Granada, Spain
	Invited Talk	Computational Audition Workshop, Bremen, Germany
	Invited Talk	Center for Neural Science, New York University, USA
2010	Invited Talk	Computational Audition Workshop, UCL, London
	Invited Talk	ICASSP, Dallas, USA, (with Maneesh Sahani)
	Invited Talk	Collegium Budapest Institute for Advanced Study, Budapest
	Invited Talk	Department of Engineering, Cambridge
2009	Invited Talk	Frankfurt Institute of Advanced Study, Germany
2008	Invited Talk	Hearing Group, Cambridge
	Invited Talk	The Institute of Neuroscience, Newcastle University
	Invited Talk	Gordon Conference on Sensory Coding, Il Ciocco, Italy
	Invited Talk	Inference Group, Cavendish, Cambridge
	Oral	Inference and Estimation in Probabilistic Time-Series Models, Newton Institute, Cambridge
2007	Invited Talk	Inference Group, Cavendish, Cambridge
	Invited Talk	Music, Brain and Cognition Workshop, NIPS, Whistler
	Oral	7th International Conference on Independent Component Analysis & Signal Separation
	Invited Talk	Collegium Budapest Institute for Advanced Study, Budapest
	Invited Talk	Department of Engineering, Cambridge

* = given on my behalf by one of my PhD students / Postdoctoral Researchers

Research co-workers

PhD students in my group

2013 - 17	Alexandre Navarro	Science Without Borders Full Scholarship
2013 - 17	Thang Bui	Google European Doctoral Fellowship Award
2013 - 17	Yingzhen Li	Schlumberger Faculty for the Future Fellowship
2014 - 18	Shane Gu	Google Focussed Research Award
2014 - 18	Mateo Rojas	EPSRC Doctoral Training Centre
2015 - 18	Mark Rowland	Cambridge Centre for Analysis DTC
2016 -	James Requeima	Self-funded
2017 -	John Bronskill	Self-funded
2017 -	Siddharth Swaroop	EPSRC Doctoral Training Programme award
2017 -	William Tebbutt	Google DeepMind Research Award
2018 -	Wessel Bruinsma	IDS Award (starting in Jan 2018)
2018 -	Andrew Foong	Trinity Hall and George and Lilian Schiff Foundation
2018 -	Elre van Zyl	Cambridge Trusts Scholarship

Research Assistant/Associates in my group

2013 - 14	Rosy Southwell	Research Assistant, funded by Baroness de Turckhiem Fund Award
2014 - 15	Dr. Felipe Tobar	EPSRC First Grant
2016 -	Dr. Nguyen Cuong	EPSRC Research Grant

Visiting Researchers

2015	Dr. Dan Stowell	EPSRC Research Fellowship
2017 - 18	Dr. Arno Solin	Academy of Finland Fellowship

External Examiner PhD Degree

2014	Siriporn Dachasilaruk	University of Southampton
2015	Andreas Damianou	University of Sheffield
2016	Simone Surace	University of Bern, Switzerland
	Samuel Parsons	University College London
	Guillaume Dehaene	University of Geneva, Switzerland
	Andreas Svensson	Uppsala University, Sweden
2018	Thibaut Lienart	University of Oxford
	Favour Mandanji Nyikosa	University of Oxford
	Lars Maaløe	DTU, Denmark

Internal Examiner PhD Degree

2013	Joseph Hall	Department of Engineering
	Ignas Budvytis	Department of Engineering
	Ferenc Huszar	Department of Engineering
2014	Andrew Wilson	Department of Engineering
	Shi-Xiong (Austin) Zhang	Department of Engineering
	Sean Matthew Shannon	Department of Engineering
	Konstantina Palla	Department of Engineering
2015	Roger Frigola-Alcade	Department of Engineering
2016	Hong Ge	Department of Engineering
	Jingzhou (Justin) Yang	Department of Engineering
	Evelina Gabasova	Department of Mathematics
2017	Patrick McClure	Cognition and Brain Sciences Unit
	Mark van der Wilk,	Department of Engineering
	Rowan McAllister	Department of Engineering
	Sukrit Shankar	Department of Engineering
	Amar Shar	Department of Engineering
2018	Yani Ioannou	Department of Engineering
	Pei-Hao Su	Department of Engineering

Internal Examiner MPhil/Masters Degree

2013	Colorado Reed	Department of Engineering
2014	Aman Sinha	Department of Engineering
2015	Ryutaro Tannon	Department of Engineering

2017	Brian Trippe	Department of Engineering

External Examiner Master's Degree

2017	Brandon Qorri Gonzalez	EPFL

External teaching

2013 & 2014 Taught on the "Advanced Course in Computational Neuroscience" summer school, Bedlewo, Poland. Lectured "Applications of Generative Models in Neuroscience". Mean feedback score: 4.7/5

2012, 2014 & 2017Taught on the "Gaussian Process Summer School", University of Sheffield. Gave tutorials on "An Introduction to Gaussian Processes for Machine Learning", "Gaussian Process Approximations for Time- Series", "Gaussian Processes for Audio Feature Extraction", "An Introduction to Sparse Approximations for Gaussian Processes" and "A Unifying View of Sparse Gaussian Process Approximations".

Outreach

2016	Interviewed on BBC 5 Live's science programme *The Naked Scientist* about Artificial Intelligence
2014	Invited speaker, Queens' College Graduate Symposium "*Creating Tomorrow*"
2014	Appeared on BBC 5 Live's science programme, *The Naked Scientist* to talk about hearing and my research,
2013	Appeared on the BBC World Service's technology programme, *Click*, presenting my work
2013	News article about my research published in *Wired Magazine*

Publications

Google scholar profile:
https://scholar.google.co.uk/citations?user=DgLEyZgAAAAJ&hl=en