

Curriculum Vitae : Roger Llewelyn Davies

Philip Wetton Professor of Astrophysics, University of Oxford
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Posts Held:

2014- Director of the Oxford Centre for Astrophysical Surveys
2011-14 & 2004-05 Head of Astrophysics, Physics Dept., University of Oxford.
2005-10 Head of Physics Department, University of Oxford.
2002- Philip Wetton Professor of Astrophysics, & Student at Christ Church
1994-02 Professor & Head of Astronomy, Department of Physics, University of Durham.
1992-94 University Lecturer in Physics and Fellow of St. Peter's College, University of Oxford.
1988-94 UK Project Scientist for the 8m Gemini Telescopes, University of Oxford.
1982-88 Staff member (with tenure from 1987), NOAO, Tucson, Arizona.
1979-82 Junior Research Fellow, Christ's College & Institute of Astronomy, University of Cambridge.
1979-80 Lindemann Fellow, Lick Observatory, University of California, Santa Cruz, USA.

Awards & Prizes (from 2000):

2016 Visiting Hunstead Fellow, University of Sydney.
2013 RAS Group Achievement Award for the *SAURON survey* (co-PI).
2012 & 2015 Australia Astronomical Observatory Distinguished Visitor
2010-2012 President Royal Astronomical Society.
2009 Fellow of University College London.
2006 Doctor Honoris Causa, University Claude Bernard, Lyon 1, France.
2006- Visiting Professor, Beihang University, Beijing, China.
2006- Dr. Lee's Reader in Physics, Christ Church, Oxford.
2006 Royal Society Wolfson Merit Award.
2001 Institute for Scientific Information "Highly Cited Researcher".
2001-2004 PPARC Senior Research Fellow.
2001 Daiwa-Adrian Foundation Prize.
1999-2000 Leverhulme University Research Fellow.

Research aims & publication summary: My aim is to advance our understanding of the evolution of large scale structure and galaxies by developing new techniques and instruments. My work has focused on the evolution of early-type galaxies. My contributions span cosmology: the distance scale and large scale motions of galaxies; galaxy evolution: dynamics, stellar populations and galaxy clusters; and telescopes, instruments & techniques. I have published 185 refereed papers, 55 have 100 or more citations, and 6 have more than 500, and one has more 1000 citations . My h-index is 69. The total citation count is in excess of 19,000.

Education:

1979: PhD: "The Dynamics of Elliptical Galaxies", Institute of Astronomy, and Churchill College, University of Cambridge. Supervisor - Dr. C.D. Mackay.
1975: BSc Physics (1st Class Honours), University College London.
1965-72: John Leggott Grammar School, Scunthorpe.

Learned Societies:

2017- President of the European Astronomical Society (Council member from 2011)
2016- Co-Chair IAU Working Group on the Global Co-ordination of Ground & Space based facilities.
2011-15 Chair IAU Working Group on Future Large Scale Facilities.
2009-12 President IAU Commission 28: Galaxies.
2008- Fellow of the Institute of Physics
1979- member of the International Astronomical Union
1979- member of the American Astronomical Society
1979- Fellow of the Royal Astronomical Society (President 2010-12)

Ph.D. Students: Sam Vaughan 2015-, Laura Prichard 2014-; Past: (with year of PhD): Francisco d'Eugenio 2014, Richard Masters 2012, Nicholas Scott 2011, Millicent Maier 2008; Bettina Gerken 2008; Ryan Houghton 2007; Maela Collobert 2005; Richard McDermid 2002; Harald Kuntschner 1998; Claire Halliday 1998; Glenn Bagglely 1996; Roberto Abraham 1991; Reynier Peletier 1988; Robert Jedrzejewski 1982.

Ph.D. Theses Examined: 31 in total; 24 as external & 7 as internal examiner; 20 in the UK, 11 overseas.

Peer Review

I referee articles for the *Astrophysical Journal*, the *Astronomical Journal*, *Astronomy and Astrophysics*, & *Monthly Notices of the Royal Astronomical Society*. I referee grant applications for STFC, the Wolfson Foundation, the Leverhulme Trust, the Royal Society, the Australian Research Council & the US National Science Foundation.

Senior Committees

2014- member Selection Committee for the Lindemann Fellowships
2013 Selection committee for the King Faisal International Prize for Science
2012 Search Committee for the Director Australian Astronomical Observatory
2011- 18 International member of the Australian Astronomical Observatory Advisory Committee
2011-17 member of the Governing Council of the Space Telescope Science Institute, Baltimore (STIC).
2011 elector for the Cambridge Astrophysics Chair
2010-11 Gemini Observatories Directors Review Committee
2010 Hubble Space Telescope Multi-Cycle Time Allocation Committee
2008 Chair Review of Optical-IR Astronomy for the National Astronomical Observatory of Japan
2008 External member of the Review of Bristol University Physics department
2006-9 US Thirty Metre Telescope External Advisory Committee
2006-11 Chair ESO Extremely Large Telescope Standing Review Committee
2004-11 member of the Fachbeirat for the Max Planck Institute for Extraterrestrial Physics.

Grants (from 2004 for which RLD is PI)

2014- *Hintze Family Charitable Foundation*: Oxford Centre for Astrophysical Surveys: £3,200,000.
2014- *John Templeton Foundation*: The Physics of Fine Tuning £1,250,000

Rolling or Consolidated grants: total £6,373,498

2013-16 STFC Astrophysics & Planetary Science at Oxford £3,672,785
2010-13 STFC Astrophysics at Oxford £2,024,050
2004-08 PPARC Oxford Observational Cosmology £676,663

Grants to support the construction of K-band Multi-Object Spectrometer for the ESO VLT: total £1,734,431

2011-12 STFC KMOS extension £87,086
2005-11 PPARC KMOS WP9 £1,580,999
2005-05 PPARC Interim Support for KMOS £66,346

Grants to support Extremely Large Telescope science & technology development: total £609,874

2009-10 STFC Extremely Large Telescopes £53,516
2007-07 STFC ELT instrument design study £64,077
2006-08 PPARC Support for ELT Instrumentation £107,598
2004-09 PPARC Developing the UK role in ELT £384,683

Grants to support the Public Engagement in Science: total £19,500

2012-13 Stargazing Oxfordshire: University Researchers and Community Astronomers bringing Space Science to the Public (held jointly with F. Clark) £6000
2011-13 STFC Astronomy Connections £7,500) (held jointly with P. Marshall)
2006-08 PPARC Communicating Astronomy £6,000 (held jointly with C. Barclay)

Postdoctoral & research fellows supervised with their current post:

John Stott (Hintze Fellow, Oxford 2015-6) Lecturer at University of Lancaster.
Ryan Houghton (PDRA, Oxford 2007-) Data Scientist Ministry of Defence.
Susan Kassin (PDRA, Oxford 2008-11) tenure track at Space Telescope Science Institute, MD, USA.
Davor Krajnovic (PDRA, Oxford 2004-9) researcher at AIP Potsdam, Germany.
Michele Cappellari (PPARC Advanced Fellow, Oxford, 2006-11), Royal Society URF & Lecturer at Oxford.
Marc Sarzi (PDRA, Oxford, 2001-04) Reader at University of Hertfordshire.
Harald Kuntschner (PDRA, Durham, 1998-2001) staff at European Southern Observatory, Munich.
Bodo Ziegler (PDRA, Durham, 1998-99) Professor at University of Vienna

Alex Vazdekis (PDRA, Durham, 1997-2000) staff at Instituto di Astrofisica di Canarias, Tenerife, Spain.
David Schlegel (PDRA, Durham, 1996-1999) staff at Lawrence Berkeley Lab, University of California, USA.
Reynier Peletier (Advanced Fellow, Durham, 1995-2000), Professor, University of Groningen, NL.
Roelof de Jong (PDRA, 1995-98, Durham) group leader at AIP Potsdam, Germany.
David Clements (PDRA, Oxford, 1989-92), Lecturer at Imperial College.
Elaine Sadler (Postdoctoral fellow, Kitt Peak, 1985-88), Professor at University of Sydney, Australia.

Research Seminars & Invited talks (from 2010) :

8/17 ESO conference 'Reaching New Heights in Astronomy': 'The Nature of Early-Type Galaxies'
11/16 Sydney University 'The radial variation of the initial mass function in galaxies'
6/16 Merton College, Oxford 'Open Questions in Galaxy Evolution'
9/15 Macquarie University 'Revisiting the morphology-density relation'
9/15 Sydney University 'What has astronomy done for us?'
4/15 Geneva Observatory 'Revisiting the morphology-density relation'
11/14 University of St Andrews, Physics colloquium, 'Is the morphology-density relation real?'
9/14 The Life and Times of Galaxies: Zion UT, 'Early-type galaxies in high density environments'
7/14 IAU Symp 311, Oxford: 'First results from KMOS cluster survey'
6/14 STFC Industry Day opening address; 'What has Astronomy ever done for us?'
6/14 RAS National Astronomy Meeting: What will LSST tell us about Galaxy Evolution?
9/13 Powerhouse Museum, Sydney, opening talk 'Evolutionary Paths in Galaxy Morphology'.
6/13 Institut d'Astrophysique Paris, 75th Anniversary Conf: opening talk 'The Origin of the Hubble sequence'.
5/13 opening talk at RAS Discussion meeting on 'Morphology in the Era of Large Surveys'.

12/12 University of Sydney, departmental colloquium.
12/12 Australian Astronomical Observatory, colloquium
11/12 CAASTRO Annual Retreat, Cervantes Western Australia, invited talk.
11/12 University of Western Australia, Perth, departmental colloquium.
10/12 Australian National University, Canberra, RSAA, colloquium.
10/8 Monash University, Melbourne, Astronomy seminar.
10/8 Swinburne University of Technology, Melbourne, opening talk 'Nearby Spheroidal Systems'
8/12 IAU General Assembly Beijing, JD 4 'Ultraviolet emission in early-type galaxies' contributed paper.
8/12 IAU General Assembly Beijing, Symp 295 'The intriguing life of massive galaxies', contributed paper.
6/12 Institut d'Astrophysique Paris conference "Stellar populations across cosmic times" invited talk.
5/12 RAS Presidential Address 'Giant Telescopes of the Future'
4/12 "METALS in 3D: New Insights from Integral Field Spectroscopy", invited talk, IAA, Granada, Spain.

11/11 Cavendish Physical Society Lecture, Cambridge.
5/11 RAS Presidential Address 'A new paradigm for early-type galaxies'.
2/11 Institut d'Astrophysique Paris, seminar.
1/11 National Radio Astronomy Observatory, Socorro, New Mexico, seminar.
11/10 Joint ESO - Max Planck Colloquium, Garching, Munich.
10/10 Science with Hubble Space Telescope – III, Venice, Conference Summary, October 2010.
10/10 Space Telescope Science Institute, Baltimore, MD. "IFUs in the Era of JWST", opening talk.
10/10 Yale University, Astronomy seminar.
6/10 Durham University, Astronomy seminar.
6/10 "Galaxy Formation Forum", Yonsei University, Seoul Korea, invited talk.

Public Engagement:

I promote engagement of the public with science through open days, astronomical societies and public lectures (41 talks & events since 2009). In 2006 I initiated the annual series of 'Astronomy for All' lectures at each Spring at Green-Templeton College. Through the winter months I organise a series of visits by teachers, school pupils and other groups to the university's Philip Wetton Telescope (PWT). I work on schools liaison and outreach with a Physics teacher, Charlie Barclay, from Marlborough College. We run the outreach programmes at two telescopes (PWT and Blackett Observatory) co-operatively. Our activities have featured on the BBC's *Stargazing Live* events since in January 2012. Each year we have opened the department to the public on the Saturday following the broadcasts and on each occasion over 1200 people visited the department and participated in *Stargazing Oxford*.