**Richard S Ellis**

**January 2024**



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**URL:** <http://www.homepages.ucl.ac.uk/~ucaprse>

**Date of Birth:** 25th May 1950

**Citizenship:** British

**Status**: Married: Barbara (1972)

Children: Hilary (1976), Tom (1978)

Grandchildren: Fyfe (2009), Ivy (2012), Pimada (2017), Alanna (2021)

**Professional History:**

**September 2015 – present:** University College, London, UK

* Professor of Astrophysics
* *On leave as:*

Senior Scientist, European Southern Observatory, Garching, Germany (Sep 15 – Aug 17)

**December 1999 – August 2015:** California Institute of Technology, Pasadena USA

* Steele Professor of Astronomy (May 02 – Aug 15)
* *On leave as:*

Royal Society Research Professor, Oxford University (Apr 08 – Feb 09)

* Director, Caltech Optical Observatories (Apr 02 - Dec 05)
* Director, Palomar Observatory (Jul 00 - Mar 02)
* Deputy Director, Palomar Observatory (Dec 99 – Jun 00)
* Professor of Astronomy (Dec 99 - Apr 02)

**April 1993 - November 1999:** Institute of Astronomy, University of Cambridge, UK

* Plumian Professor of Astronomy (Oct 93 – Nov 99)
* Director, Institute of Astronomy (Oct 94 - Sep 99)
* SERC Senior Research Fellow (Apr 93 – Sep 94)

**October 1974 - March 1993:** Department of Physics, Durham University, UK

* Professor of Astronomy (Oct 85 – Mar 93)
* SERC Senior Research Fellow (Oct 89 – Mar 93)
* *On leave as:*

Principal Research Fellow, Royal Greenwich Observatory (Oct 83 – Sep 85)

* Lecturer in Astronomy (Oct 81 – Sep 83)
* Postdoctoral Researcher (Oct 77 – Sep 81)
* Senior Demonstrator in Physics (Oct 74 – Sep 77)

**Educational History:**

1971 – 1974 D.Phil. in Astrophysics: *Stellar Abundances and Nucleosynthesis*

Department of Astrophysics, Oxford University

*Prizes:* 1972 - Johnson Memorial Prize

1972 - Graduate Award, Wolfson College

1968 - 1971 B.Sc. First Class Honours in Astronomy

Department of Astronomy, University College London, UK

*Prizes:* 1970 - Huggins Astronomy Prize

1971 - Faculty of Sciences Silver Medal

(awarded for best first class degree)

**Awards, Prizes and Distinctions:**

1993 Professorial Fellow, Magdalene College, Cambridge

1995 Fellow of the Royal Society

1998 Fellow of the Institute of Physics

1998 Bakerian Medal & Lecture, Royal Society

1. Fellow, University College London

1998 Science Magazine: Research ‘Breakthrough of the Year’

(shared with Supernova Cosmology and High Z Supernova Search Team Members)

1. Fellow, American Association for the Advancement of Science

2002 Honorary Doctor of Science, Durham University, UK

2007 Cosmology Prize, Peter & Patricia Gruber Foundation

(shared with Supernova Cosmology and High Z Supernova Search Team Members)

2007 Professorial Fellow, Merton College, Oxford

2008 Commander of the Order of the British Empire (CBE)

(for services to international science)

Royal Astronomical Society Group Award

(shared with members of the 2 degree Field Galaxy Redshift Survey Team)

2011 Gold Medal, Royal Astronomical Society

2014 Breakthrough Prize in Fundamental Physics

(shared with Supernova Cosmology and High Z Supernova Search Team Members)

2017 Carl Sagan Memorial Award (shared with ‘HST & Beyond’ committee members for

recommending what became the James Webb Space Telescope)

2018 Fellow Australian Academy of Sciences (Corresponding Member)

2019 Honorary Doctor of Science, Edinburgh University, UK

2020 Michael Faraday Gold Medal, Institute of Physics

2022 Royal Medal, Royal Society

2023 Cosmology Prize, Peter & Patricia Gruber Foundation (sole recipient)

**Named Lectures:**

1992 Spring Lecturer, Princeton NJ

1992 Jeffrey L Bishop, Princeton NJ

1993 Halley, Oxford, UK

1996 Cormack, Royal Soc. Edinburgh, UK

1997 Norman Lockyer, Royal Astronomical Society, UK

1998 Sackler, Harvard MA

Bakerian, Royal Society, UK

Poynting, Birmingham, UK

1999 Grubb Parsons, Durham, UK

Rosenblum, Jerusalem

2001 Lansdowne, Victoria BC

2004 Allison-Levick, Astronomical Soc. Australia

2006 Guelph-Waterloo Distinguished Series, Canada

John Bahcall Memorial (NASA)

2007 Jeffrey L Bishop, Columbia NY

2008 Elizabeth Spreadbury, UC London, UK

2009 Neils Bohr, Copenhagen

2010 John Schopp Memorial, San Diego CA

Oort, Leiden

2012 Rittenhouse, Philadelphia PA

John Bahcall Memorial, Weizmann Institute, Israel

2013 Distinguished Lecture Series, Warwick University, UK

Earnest Watson Lecture, Caltech, Pasadena CA

Fundación BBVa, Madrid, Spain

2015 Darwin Lecture Series, Cambridge UK

2016 Carnegie Centennial, St Andrew’s UK

Sir Robert Wilson, UC London, UK

2017 John de Laeter, University of Western Australia

2018 Brinson, University of Chicago

2022 Hunstead, University of Sydney

Greenway, Friends of Palomar CA

2023 Gruber Prize Lecture, Marseille

**External Appointments:**

1985 Visiting Professor, Space Telescope Science Institute, Baltimore

1991 Visiting Professor, Anglo-Australian Observatory, Sydney

1991 Visiting Professor, Caltech

1992 Visiting Professor, Princeton University

1997 Visiting Professor, Caltech & Carnegie Observatories

1994- Associate, Canadian Institute for Advanced Research

1994- Visiting Professor, University of Durham

2000 Honorary Professor of Astrophysics, University of Cambridge

2001 Visiting Professor, Japanese Society for the Promotion of Science

2005-15 Visiting Professor, University College London

2006-15 Visiting Professor, Oxford University

2007 Raymond & Beverly Sackler Distinguished Professor, Cambridge

2010 Oort Professor, University of Leiden

2010 Distinguished Visiting Professor, Australian Astronomical Observatory

2011 Visiting Professor, IPMU, University of Tokyo

Distinguished Visitor, NEXSI, University of California, Santa Cruz

2015-18 Carnegie Centennial Professor, University of Edinburgh

2018 Raymond & Beverly Sackler Distinguished Professor, Tel Aviv University

2019 FINCA-ESO Visiting Professor, Finland

2017- Visiting Associate, Caltech

2017- Honorary Professor, University of Edinburgh

2022- Visiting Professor, Institute of Astronomy, Cambridge

2022 Hunstead Visiting Professor, Sydney University

**Publication Boards:**

2000-9 Editorial Board, Cambridge Observational Handbook Series (CUP)

2002-8 Board of Reviewing Editors, Science Magazine

2004-9 Editorial Board, Royal Society Publications (A)

2012- Editorial Board, Contemporary Physics

**Learned Societies:**

1974- Fellow, Royal Astronomical Society

1985- Member, American Astronomical Society

1994- Fellow, Cambridge Philosophical Society

1995- Fellow, Royal Society of London

1998- Fellow, Institute of Physics

2001- Fellow, American Association for the Advancement of Science

2018- Fellow, Australian Academy of Sciences (Corresponding Member)

**Leadership of Major Astronomical Projects:**

1987-1994 Chair, UK Large Telescope Panel (led to UK joining the Gemini Observatory)

1993-2000 Science co-PI: 2 degree Field Galaxy Redshift Survey

2000-2014 Thirty Meter Telescope project: science advocacy, fund-raising, establishing international partnership

2006 -present Science co-PI: Subaru Prime Focus Spectrograph

2015-2017 Chair, ESO’s Future of Multi-Object Spectroscopy panel (leading

(to Wide-Field Spectroscopic Telescope proposal)

**Scientific Publications:**

ORCID: 0000-0001-7782-7071

656 scientific articles: 488 refereed, 155 non-refereed, 6 popular, 7 books

Full publication record is available on <http://www.astro.caltech.edu/~rse/pubs.pdf>

Citations to all articles: ~140,000 (Google Scholar); ~100,000 (ADS)

Hirsch ‘h’ index (see arXiv:physics/0508025) = 174 (Google Scholar), 150 (ADS)

**Membership of Committees:**

1978-79 Panel on Astronomical Image & Data Process (initiated UK STARLINK

computing project)

1979-82 Astronomy II Grants Committee (UK grants for uv,optical & infrared studies)

1979-83 STARLINK Scientific Advisory Group (managing the UK STARLINK project)

1980-83 Panel for Allocation of Telescope Time (UK optical & infrared telescopes)

1981-84 STARLINK Special Interest Group on 2-D Image Processing (Chair)

(coordinating UK software development)

1982-83 ESA/SERC IUE Time Allocation Committee

1982-83 Astronomy, Space & Radio Computer Panel (review of computing facilities)

1984-85 Space Telescope Scientific Working Group: Deep Surveys

(defined HST “Key Projects”)

1984-87 La Palma Telescopes Users Committee (defining & procuring instrumentation)

1985-88 Studentships & Fellowships Panel (interviewing UK 5-year research positions)

1985-89 Astronomy and Planetary Sciences Grants Committee

(UK ground-based science projects)

1988-90 Space Telescope European Coordinating Facility: Users’ Committee (Chair)

(management of archiving & user support)

1986-90 UK Large Telescope Panel (Chair):(Strategy for future large telescopes

leading to UK’s entry in the Gemini Project)

1990-92 Space Telescope Scientific Advisory Committee:

(scientific exploitation of Hubble Space Telescope)

1990-93 GEMINI UK Scientific Advisory Committee (Chair):

(maintaining UK policy & scientific interests)

1990-95 GEMINI International Science Committee (scientific planning)

1991-95 Anglo-Australian Telescope Board of Directors (executive for 3.9m AAT)

1992 Hubble Space Telescope Time Allocation: Galaxies & Clusters Panel (Chair)

1993-95 Optical Infrared mm Strategy Planning Committee

(long term planning of UK ground-based facilities)

1994-99 European Association for Research in Astronomy Board:

(coordinating research amongst Paris, Munich,, Leiden,

Cambridge & Tenerife academic institutions)

1994-95 HST and Beyond Panel : (future NASA/ESA & HST instrumentation leading

to the James Webb Space Telescope)

1994-99 GEMINI UK Steering Committee (Chair 1994-6):

(scientific & financial aspects of UK's involvement )

1994 ASTRON Foreign Evaluation Committee: (Review of Dutch Astronomy)

1995-2000 Space Telescope Institute Council: (oversight of Hubble Space Telescope)

1995-96 Max Planck Institute for Astronomy: (search committee for Director)

1995-2000 IUCAA Science Advisory Committee: (visiting committee for Indian centre)

1995-98 GEMINI Board of Directors: (executive for twin 8-m Telescope Project)

1996-98 Ground Based Facilities Committee: (future planning of UK facilities)

1996-99 UK-Japan N+N Board: (coordination of initiatives between UK & Japan)

1998-99 PPARC Science Committee: (astronomy & particle physics projects)

1999 National Academy of Sciences Astronomy and Astrophysics Survey,

UV, Optical and IR from Space Panel (Decadal Review)

1999-2001 VISTA Executive Board: (management of Wide Field Survey Telescope)

1999-2002 Royal Society Sectional Committee: (selection of new Fellows)

1999-2002 CELT Steering, Science and Instrument Working Groups

(planning of proposed 30-meter optical/infrared telescope)

1999 Canadian Long Range Astronomy Plan (International Advisory Group)

2000-5 Keck Science Steering Committtee (planning & budgetary responsibility

for instrumentation & science program)

2000-5 CARA Board of Directors: (Executive Board for Keck Observatory)

2000-4 AURA Board of Member Representatives: (research in US universities)

2000- AURA Coordinating Committee of Research Directors (Advisory Board

comprised of private US observatory directors)

2000-1 ETH, Zurich: Search Committee for Head of Astrophysics

2001 New Initiatives Office, NOAO, Advisory Committee (future ELT project)

2001 Israeli National Academy of Sciences and Humanities,

Visiting Committee for Astronomy

2001-4 Committee for Astronomy & Astrophysics, US National Academy

2002-11 Fachbeirat:, Max Planck Institute for Extraterrestrial Astronomy

2000 Visiting Committee, Carnegie Observatories

2003-4 Durham University, Search Committee for Professor of Astronomy

2003-14 TMT Board of Directors (management of 30-m telescope)

2003-13 TMT Science Advisory Committee (science planning of above)

2004- 9 Royal Society, Publications Editorial Board (Physical Sciences Section)

2004 University of Copenhagen, Search for Professor of Astronomy

2004-5 NASA/DoE Joint Dark Energy Mission, Science Definition Team

2005 Chinese Academy of Sciences: LAMOST telescope review (co-chair)

2005 UK Infrared Telescope Review Panel (chair)

2005-15 Science Advisory Board, Dark Cosmology Centre, Copenhagen

2007-17 Advisory Committee, Cosmology & Gravity Program, Canadian Institute for

Advanced Research

2008 Spitzer Space Telescope: Cycle 5 Time Allocation (Panel Deputy Chair)

2008 Subaru Telescope Time Allocation Committee (External Advisor)

2008 Yale University, Astronomy Visiting Committee

2008-9 Joint Dark Energy Mission: Science Coordinating Group

2009 Chinese Academy of Science: LAMOST Telescope Review (chair)

2009-13 Keck Observatory, Science Steering Committee (planning budgetary responsibility

for instrumentation & science program)

2009 Chinese Academy of Science: LAMOST Science Evaluation Committee (Chair)

2009-12 Spitzer Science Center Oversight Committee

2011-12 Royal Astronomical Society Awards Committee

2012-17 Scientific Advisory Committee, Munich Institute for Astroparticle Physics

2013- Scientific Advisory Committee, Kavli Institute for Astronomy & Astrophysics, Beijing

2014-15 Scientific Advisory Panel, California Science Center

2014 Space Telescope Science Institute, Hubble Frontier Fields Review

2015-17 Royal Society, Newton Fellowship Selection Panel

2016-20 Royal Society, University Research Fellowships Panel

2017 Dan David Prize Review Committee (Chair)

2017 Blavatnik Fellowships Panel (UK)

2018 ESO Extremely Large Telescope: MOSAIC Review Committee

2019-20 Centre for Astrophysics & Supercomputing Advisory Committee, Swinburne U

2020-22 Royal Society, Leverhulme Trust Senior Research Fellowship Panel

2020-22 Royal Society, Hooke Committee

2020- Science Advisory Committee, ORIGINS Cluster, Munich

2020-21 Selection Committee, Faculty Position in Observational Astrophysics

& Cosmology, Swiss Federal Institute of Technology Lausanne

2021 Royal Society, Foreign Members Scrutiny Group

2022- Royal Society, Research Professorship Panel

2022 International Advisory Committee, Multiplexed Survey Telescope,

Tsinghua University, China

2023 Kavli Institute for Astronomy & Astrophysics, Beijing, Director’s Review

**Grant Awards (as Principal Investigator): total equivalent ~$24.1M**

**Major Awards (2000-present):**

First Light: Early Star-Forming Galaxies & the Reionisation of the Universe (ERC) €2,458,000

Subaru Prime Focus Spectrograph (Kavli IPMU, U. Tokyo): $9,496,243

Fiber Positioner for Subaru Prime Focus Spectrograph (Caltech): $3,000,000

Optical Fiber Positioner for Subaru Prime Focus Spectrograph (NAOJ): $2,579,745

Unraveling the Dark Universe with the Subaru Prime Focus Spectrograph (JPL): $1,043,200

Did Galaxies Reionize the Universe? (NASA): $544,904

Astrophysics of the Most Extreme Galaxies (NSF):  $410,523

A next-generation fiber positioner for multi-object spectroscopy (JPL): $400,000

Conceptual Design Study for Wide Field Multi-Object Spectrometer (AURA): $1,850,000

Understanding the Fundamental Properties of Dark Matter & Dark Energy in Structure

Formation and Cosmology (DOE): $620,000

The Origin of the Hubble Sequence of Galaxies (NSF): $360,000

**Other awards (2000-present):**

The Role of the Environment in the Growth of Compact Red Galaxies: $66,642

The Nature of Star Formation in Two Luminous Galaxies Beyond z=7: $47,220

Towards a Physical Understanding of the Diversity of Type Ia Supernovae: $198,092

The Size-Luminosity Relation of HII Regions in Gravitationally-Lensed Galaxies: $34,211

The Physical Nature of a Unique Giant Lyman Alpha Emitter at z=6.595: $63,077

Verifying the Utility of SNe Ia as Cosmological Probes: $266,510

Characterizing the Sources Responsible for Cosmic Reionization: $172,539

Characterizing the Stellar Populations in Lyα Emitters & Lyman Break Galaxies: $70,003

The Ultimate Gravitational Lensing Survey of Cluster Mass & Substructure: $109,845

The X-Ray Properties of Weak Lensing Selected Galaxy Clusters: $45,794

The Dark Matter Profile and Baryonic Content of Clusters: $48,000

An Unbiased Multi-wavelength Study of Clusters - Gas Cooling & Merging: $44,000

**Invited Talks (2000-):** Conference organizer, summary or sole keynote speaker **in bold font**

2000 • CIAR ‘Gravitation & Cosmology’, Banff, Canada

• ‘Galactic Disks and Disk Galaxies’, Vatican Observatory

• ‘Science with the Large Binocular Telescope’, Ringberg, Germany

• ‘New Cosmological Data & the Fundamental Parameters’, IAU Manchester, UK

• ‘Victoria Computational Cosmology Conference, Victoria, BC Canada

• Keck Annual Science Meeting, Santa Cruz, CA

2001 • 197th American Astronomical Society, San Diego, CA

• Advanced Camera for Surveys High Latitude Workshop, Baltimore, MD

• ‘Galaxy Formation’, Oort Workshop, Leiden, Netherlands

**• ‘The Shapes of Galaxies & their Halos’, Yale University, CT**

• 198th American Astronomical Society, Pasadena, CA

**• ‘Tracing Cosmic Evolution with Galaxy Clusters’, Sesto, Italy**

• ‘Cosmic Shear’, Cambridge, UK

• ‘Wide Field Multiobject Spectroscopy’, Tucson, AZ

• Keck Annual Science Meeting, Pasadena, CA

• `New Trends in Theoretical & Observational Cosmology’, U. Tokyo

2002 • 199th American Astronomical Society, Washington DC

• CIAR ‘Gravitation & Cosmology’, April Point, Canada

• `Making Light of Gravity’, Cambridge, UK

• `Galaxy Evolution’, Kiel, Germany

• `Type Ia Supernovae: Theory meets Observation’, Leiden, Netherlands

• ‘Astronomical Telescopes and Instrumentation’, SPIE Meetings, Kona, HI

• Keck Annual Science Meeting, Berkeley, CA

• `Challenges to the Standard Paradigm’, National Academy, Irvine CA

• `Measuring & Modeling the Universe’, Carnegie Centennial Symposium, Pasadena, CA

• Texas in Tuscany, XXI Symposium on Relativistic Astrophysics, Florence, Italy

• `30-100 metre Telescopes’, Royal Astronomical Soc., London, UK

• `Extending Frontiers in Cosmology’, Oxford, UK

2003 • `The Baryonic Universe’, Aspen, CO

• 202nd American Astronomical Society, Nashville, TN

• `The Provocative Universe’, IUCAA, India

* ‘Clusters of Galaxies’, 25th IAU General Assembly, Sydney, Australia
* **`From First Light to the Milky Way’, Zurich, Switzerland**
* `The CDM Universe and Galaxy Formation’, Tokyo, Japan
* `Redshift Surveys’, Royal Astronomical Society, London

2004 • Zwicky Workshop on Supernovae, Carnegie Observatories, Pasadena CA

• CIAR Annual Gravity & Cosmology Meeting, Banff, AB, Canada

• Mitchell Conference on Observational Cosmology, College Station, TX

• ‘Star Formation and Reionization’, LOxCam Workshop, UC London

• Physics Jubilee, Weizmann Institute, Israel

• `Wide Field Imaging in Space’, LBL, Berkeley CA

• 204th American Astronomical Society, Denver, CO

• `Concordance Cosmology & Beyond’, Cambridge, UK

• Keck Annual Science Meeting, UC Los Angeles

• ‘Galaxy-Intergalactic Medium Interactions’, Kavli Institute, Santa Barbara CA

2005 • **‘Gravitational Lensing: Dark Energy & Dark Matter’, Columbus OH**

• ‘Future of Cosmology with Clusters’, Kona HI

• CIAR05 `Cosmic Quest for Fundamental Physics’, Mont Tremblant, Quebec, Canada

• ‘Current Problems in Relativistic Astrophysics’, Royal Astronomical Soc., London, UK

• ‘First Light and Reionization’, UC Irvine, CA

• ‘Interface between Galaxy Formation & Cosmology’, Cumberland Lodge, London, UK

• **`Cosmic Shear: Testing Evaluation Program’, JPL, Pasadena USA**

• `Open Questions in Cosmology: First Billion Years’, Munich, Germany

• Keck Annual Science Meeting, Caltech

• Thirty Meter Telescope Meeting, Aspen CO

• Canada France Hawaii Supernova Legacy Survey Workshop, Waimea, HI

• `Cosmology 2005’, NORDITA, Copenhagen, Denmark

2006 • CIAR06 `Cosmology and Gravitation’, Banff, Alberta, Canada

• `End of the Dark Ages’, STScI, Baltimore, MD

* **`Making the Most of the Great Observatories’, Pasadena, CA**
* `First Stars and Evolution of the Early Universe’, Seattle, WA
* `Cosmic Frontiers’, Durham, UK
* `Key Approaches to Dark Energy’, Barcelona, Spain
* `The Universe at z>6’, IAU Joint Discussion, Prague
* `New Cosmology Results from Spitzer’, IAU Joint Discussion, Prague
* `Cluster of Galaxies’, Waterloo, ON, Canada
* **`Applications of Gravitational Lensing, Santa Barbara, CA**
* `Massive Galaxies over Cosmic Time, Tucson, AZ
* **`Cosmology with Wide-Field Surveys’, Tokyo, Japan**
* `Dedication of the Large Millimeter Telescope’, Puebla, Mexico

2007 • CIAR07 `Cosmology and Gravitation’, Whistler, BC, Canada

* `Structure Formation in the Universe’, Chamonix, France
* `HI Survival through Cosmic Time’, Spineta, Italy
* `Giant arcs to CMB lensing: 20 years of gravitational distortion’, Paris, France
* `From IRAS to Planck/Herschel’, London, UK
* `Science in the TMT Era’, Irvine, CA
* `Type Ia Supernovae’, Tokyo, Japan
* **`Decrypting the Universe’, Edinburgh, UK**
* `Astrophysics 2020: Future Large Space Missions’, Baltimore, MD
* `**Panoramic Views of Galaxy Formation & Evolution’, Hayama, Japan**

2008 • `The Evolution of Early-Type Galaxies’, Royal Astronomical Soc., London, UK

* **`Cosmology Near & Far: Science with WFMOS, Kona, HI**
* `The Supenova Legacy Survey: Results and Prospects’, Oxford, UK
* `New Vision 400: 400 years after the Invention of Telescope’, Beijing, China
* **`Bernard Pagel’s Universe: Galaxies & Elements’, RAS London**
* `Galaxy Mass Assembly’, Kashiwa, Japan

2009 • CIFAR Annual Cosmology & Gravity Meeting, Mont Tremblant, Quebec, Canada

* **`Galaxy Evolution and Environment’, Kuala Lumpur, Malaysia**
* **`New Eyes on the Universe: 400 Years of Telescopes’, APS Meeting, Denver CO**
* **`FMOS Science Workshop’, Oxford UK**
* **`Dark Matter in Early-Type Galaxies’, IAU General Assembly, Rio de Janeiro**
* **`**The First Galaxies’, IAU General Assembly, Rio de Janeiro
* `Palomar Transient Factory Workshop’, Santa Barbara, CA
* **`UKIRT at 30: A British Success Story’, Edinburgh, UK**
* `Reionization to Exoplanets’: Spitzer’s Growing Legacy, Pasadena, CA
* **`Wide Field Imaging & Spectroscopy of the Distant Universe, Princeton, NJ**
* **`The Origin of Galaxies: Lessons from the Distant Universe’, Obergurgl, Austria**

2010 • **`The High Redshift Universe: A Multi-Wavelength View’, Aspen, CO**

* CIFAR Annual Cosmology & Gravity Meeting, Lake Louise, Alberta, Canada
* `The First Stars and Galaxies’, Austin, TX
* `Galaxy Formation: Simulations versus Observations’, JPL, Pasadena, CA
* `Celebrating the AAO: Past, Present and Future’, Coonabarabran, NSW, Australia

2011 • `TMT Science and Instrumentation’, Victoria BC

• CIFAR Annual Cosmology & Gravity Meeting, Whistler, BC, Canada

• Frontier Science Opportunities with James Webb Space Telescope, Baltimore, MD

• **New Horizons for High Redshift, Cambridge, UK**

**• Feeding the Giants: Surveys in the Era of the ELTs, Ischia, Italy**

2012 **• First Light and the Faintest Dwarfs, Santa Barbara, CA**

• Keck Science Workshop, Swinburne, VIC, Australia

• CIFAR Annual Cosmology & Gravity Meeting, Whistler, BC, Canada

• Science with WFIRST, 220th AAS Meeting, Anchorage, AK

• Stellar Populations Across Cosmic Time, IAP Paris, France

• The First 50 Years of ESO, Garching, Germany

• The Origins of the Expanding Universe, Flagstaff, AZ

• Physics, Energy, Computing and Cites (Steve Koonin @ 61), Brooklyn, NY

2013 **•** 221st American Astronomical Society Meeting, Long Beach, CA

• Physics of the Universe Summit (POTUS13), Los Angeles, CA

* CIFAR Annual Cosmology & Gravity Meeting, Banff, Alberta, Canada
* Keck 20th Anniversary Science Meeting, Kona, HI
* The Origin of the Hubble Sequence, IAP, Paris, France
* Reionization in the Red Center, Uluru NT, Australia
* **Galaxy Evolution over Five Decades, Cambridge UK**
* Frontiers in Astronomy, Joint Royal Society – Norwegian Academy Meeting, London UK

2014 **•** IEEE Annual Aerospace Conference, Big Sky, MT

* **Formation & Growth of Galaxies in the Young Universe, Obergurgl, Austria**
* The physics of first star and galaxy formation, Edinburgh, UK
* The first billion years of galaxies & black holes, Sesto, Italy
* De País En País, Medellín, Colombia
* Astrophysics & Cosmology, 26th Solvay Conference in Physics, Brussels, Belgium
* American Physical Society, Four Corners Meeting, Orem, UT

2015 ** Science with the Frontier Fields, Sesto, Italy**

****MOONS Consortium Science Meeting, Edinburgh, UK

****Celebration of Nick Scoville’s Career, Honolulu, HI****

**** George Efstathiou @ 60: Galaxies to Large Scale Structure and the CMB, Cambridge UK

 Rainbows on the Southern Sky, ESO Garching, Germany****

 Exploring the Universe with JWST, ESTEC, Nordwijk, Netherlands****

 Science & Technology with the E=ELT, Erice, Italy

 **Science Meeting of Excellence Cluster Universe, MPE Garching, Germany**

 Cosmology and First Light, IAP, Paris, France

2016 **** The Growth of Galaxies in the Early Universe - II, Sesto, Italy

****CIFAR Annual Cosmology & Gravity Meeting, Whistler BC, Canada

**High Redshift Galaxies and their Low-Redshift Analogues, RAS, London**

**Scottish Universities Physics Alliance, Annual Gathering, Glasgow**

****Mapping the Cosmic Web, RAS, London

**Astronomical Telescopes & Instrumentation, S.P.I.E., Edinburgh**

****Illuminating the Dark Ages, MPiA, Heidelberg, Germany

****Signals from the Deep Past, Malta

****In Situ View of Galaxy Formation, Ringberg, Germany

**Panoramas of the Evolving Cosmos, 6th Subaru International Conference,**

**Hiroshima, Japan**

2017  Growth of Galaxies in the Early Universe - III, Sesto, Italy

****CIFAR Annual Cosmology & Gravity Meeting, Lake Louise AB, Canada

****Surveying the Cosmos: Science from Massively-Multiplexed Surveys, Sydney Australia

**** Kavli IPMU Tenth Anniversary Symposium, Kashiwa, Japan****

****Characterising Galaxies with Spectroscopy with a view for JWST, Leiden NL****

2018 **Growth of Galaxies in the Early Universe - IV, Sesto, Italy**

**The Interstellar Medium in High Redshift Galaxies, Garching, Germany**

****Science at the Shine Dome, Australian Academy of Science, Canberra, Australia****

**The Laws of Star Formation, Cambridge UK**

**Unsolved Problems in Astrophysics & Cosmology, Budapest, Hungary**

2019  Growth of Galaxies in the Early Universe - V, Sesto, Italy

**Future Spectroscopic Surveys, UCL**

Royal Society Fellows Retreat, Chicheley Hall, UK

From Deep Learning to the Dark Universe, Cumberland Lodge, UK

**Uncovering early galaxy evolution in ALMA & JWST era, Viana do Castelo, Portugal**

XLIII Annual Meeting of the Brazilian Astronomical Soc., São Paulo, Brazil

Cosmology: the end of the beginning, KICC, Cambridge, UK

2020The Growth of Galaxies in the Early Universe - VI, Sesto, Italy

**Celebrating the Legacy of Spitzer, Pasadena, CA**

**ORIGINS Science Meeting, Garching, Germany** (virtual)

2021The Prime Focus Spectrograph, American Astronomical Soc. #237 (virtual)

 Massively Parallel Large Area Spectroscopy from Space (virtual)

2022  The Growth of Galaxies in the Early Universe - VII, Sesto, Italy

 **From the First Stars to Intelligent Life (Avi Loeb@60)** (virtual)

 **From Stars to Galaxies II – Göteborg, Sweden**

 **Reinhard Genzel @ 70 – Ringberg Castle, Germany** (virtual)

 **From Galaxies to Cosmology: Tribute to Olivier LeFèvre, Marseille**

 **Sir Arnold Wolfendale Memorial Meeting (Durham)**

2023First Results from James Webb Space Telescope, ICRR, Tokyo

**A multi-scale view of the Epoch of Reionisation, Cambridge, UK**

 **Science with the future Wide Field Spectroscopic Telescope, Vienna**

 **From Exoplanets to the Birth of Galaxies, Astrophysics Center, Sāo Paulo, Brazil**

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**Colloquia (2000-):**

2000 Caltech, Pasadena CA

Arizona State U, Tempe, AZ

Cornell U, Ithaca, NY

2001 UC Los Angeles, CA

NRAO, Socorro, NM

Caltech, Pasadena CA (Physics Conference Series)

UC Irvine, CA

Gemini Observatory, Hilo, HI

University of Oregon, Eugene, OR

University of Victoria, B.C.

Tohoku University, Sendai, Japan

National Astronomical Observatory, Mitaka, Japan

Department of Astronomy, University of Tokyo, Japan

Institute for Cosmic Ray Research, Kashiwa, Japan

2002 New Mexico State University, Las Cruces, NM

Princeton University, NJ

University of Southern California, Los Angeles, CA

INAOUE, Mexico

UC Santa Cruz, CA

Ohio State University, OH

Observatoire de Paris, Meudon

University of Durham UK

Harvard University

U Wisconsin, Madison WI

Institute for Astronomy, U Hawaii, Manoa HI

Subaru Observatory, Hilo HI

U Washington, Seattle WA

2003 California State University, Long Beach, CA

Michigan State University, MI

Caltech HEP Group, Pasadena CA

U Florida, Gainesville FL

U Toronto, Canada

2004 Institute for Astronomy, U. Hawaii, Manoa HI

Lawrence Berkeley Laboratory, Berkeley CA

Infrared Processor & Analysis Center (IPAC), Pasadena CA

Fermi National Accelerator Laboratory, Chicago IL

Keck Observatory, Waimea HI

University College London

University of Durham UK

Instituto de Astronomia, UNAM, Mexico

Gemini Observatory, Hilo HI

Max Planck Institute for Astronomy, Heidelberg, Germany

Anglo-Australian Observatory, Sydney, Australia

Mt Stromlo Observatory, Canberra, Australia

University of Nottingham, UK

Center for Astrophysics, Cambridge MA

JILA, Colorado University, Boulder CO

University of Chicago, IL

Jet Propulsion Lab, Pasadena, CA

University of Oxford, UK

2005 University of California, Santa Barbara CA

Caltech, Pasadena CA

Subaru HQ, Hilo HI

University College, London, UK

University of Oxford, UK

California State University, Channel Islands

University of California, Los Angeles

National Astronomical Observatory Japan

Max Planck Institute for Astronomy, Heidelberg, Germany

Harvard, Cambridge MA

2006 University of British Columbia, Vancouver, BC

University of Edinburgh, UK

Durham University, UK

University of Toronto, ON

Queen’s University, Kingston, ON

Waterloo, ON

Space Telescope Science Institute, Baltimore, MD

Goddard Space Flight Center, Greenbelt, MD

2007 Oxford University, UK

Swinburne University, Australia

University of California, Santa Barbara, CA

University of Texas, Dallas, TX

Columbia U, NY

Geneva Observatory, Switzerland

University of Tokyo, Japan

University of Kyoto, Japan

Tohoku University, Sendai, Japan

2008 Institute for Astronomy, Honolulu, HI

University of Minnesota, Minneapolis MN

Hertzberg Institute for Astrophysics, Victoria, BC

Dublin City University, Ireland

European Southern Observatory, Garching, Germany

Rutherford Appleton Laboratory, Oxon, UK

University of Birmingham, UK

University of Tokyo, Japan

2009 University of Cardiff, UK

IAG, University of Sao Paulo, Brazil

2010 Stony Brook University, NY

Institute for Advanced Study, Princeton

University of California, Riverside, CA

Durham University, UK

Swinburne University, Melbourne, Australia

Australian Astronomical Observatory, Sydney, Australia

Tufts University, Cambridge MA

Oklahoma University, Norman OK

2011 Imperial College London, UK

Royal Observatory, Edinburgh, UK

Durham University, UK

Bristol University, UK

Institute of Astronomy & Astrophysics, Academica Sinica,Taiwan

Institute for Physics & Mathematics of the Universe, Tokyo, Japan

University of Colorado, Boulder, CO

University of California, Santa Cruz, CA

2012 Massachusetts Institute of Technology, Cambridge, MA

Institute for Astronomy, University of Hawaii, HI

Racah Institute, Hebrew University, Jerusalem, Israel

University of Sussex, Falmer, Sussex, UK

Institute for Astronomy, ETH, Zurich

University of Cardiff, Cardiff, Wales, UK

Institute of Astronomy, Cambridge, UK

University of Texas, Austin, TX

University of Arizona, Tucson, AZ

2013 IPAC, Pasadena, CA

University of California, Riverside, CA

California Institute of Technology, Pasadena, CA

Carnegie Mellon University, Pittsburgh, PA

ITC, Harvard, Cambridge, MA

National Radio Astronomical Observatory, Charlottesville, VA

Institute for Astronomy, ETH, Zurich, Switzerland

Warwick University, UK

Durham University, UK

Oxford University, UK

Institute of Astronomy, Cambridge UK

University of California, Los Angeles

2014 National Astronomical Observatory, Mitaka, Japan

Institute for Physics & Mathematics of the Universe, Kashiwa, Japan

Bryn Mawr College, Philadelphia, PA

Space Telescope Science Institute, Baltimore, MD

University of California, Berkeley, CA

Institute for Advanced Study, Princeton NJ

Durham University, UK

Institute of Astronomy, ETH, Zurich, Switzerland

Department of Astronomy, University of Antioquia, Colombia

KIPAC, Stanford, CA

2015 University of Chicago, IL

Institute for Astronomy, Royal Observatory, Edinburgh UK

ESO/MPE/MPA, Garching, Germany

ESO, Santiago, Chile

2016 Osservatorio Astronomico di Brera, Milan, Italy

Laboratoire D’Astrophysique, Marseille, France

University of Leicester UK

Observatoire de Lyon, France

University of Heidelberg, Germany

Mullard Space Science Laboratory, London

Institute for Advanced Study, Princeton, NJ

Institute of Astronomy, Cambridge

Scuola Normale Superiore, Pisa, Italy

2017 Institute of Aeronautics, Technical University of Munich, Germany

ESO, Vitacura, Santiago de Chile

ICRAR, University of Western Australia

ETH, Zurich, Switzerland

2018 Caltech, Pasadena, CA

Carnegie Observatories, Pasadena, CA

Institute of Astronomy, Cambridge

Max Planck Institute for Extraterrestrial Physics, Garching, Germany

Department of Astrophysics, University of Chicago, IL

Mt Stromlo Observatory, Canberra, Australia

Institute for Astronomy, Royal Observatory, Edinburgh UK

University of Durham, UK

Institute for Cosmology & Gravitation, Portsmouth UK

Leibniz-Institute for Astrophysics, Potsdam, Germany

Liverpool John Moores University UK

Tel Aviv University, Israel

Hebrew University, Jerusalem, Israel

2019 Lancaster University, UK

Bath University, UK

Kapteyn Institute, Groningen, Netherlands

University of Hertfordshire, Hatfield UK

University of Helsinki, Finland

University of Turku, Finland

University of Oulu, Finland

National Taiwan University, Taiwan

Institute of Astronomy & Astrophysics, Academic Sinica, Taiwan

2020 Universidade Cidade de São Paulo(virtual)

2022 Canadian Institute for Theoretical Astrophysics, Toronto (virtual)

Mullard Space Science Laboratory, London (virtual)

Mt Stromlo Observatory, Canberra, Australia

Sydney University, Australia

Anton Pannekoek Institute, Amsterdam, Netherlands

**Extended Visits & Lecture Series**

1985: Space Telescope Science Institute, Baltimore, USA (extended visit)

1989: Beijing Observatory, China (lecture series)

1990: Toulouse Observatory, France (extended visit)

1991: Anglo-Australian Observatory, Sydney, Australia (extended visit)

Caltech, Pasadena, USA (extended visit)

1992: Princeton University, Princeton, USA (Spring Lecture series)

1995: Astronomical Society of Australia (public lecture tour of major cities)

1997: Carnegie Observatories/Caltech (extended visit)

1999: Arcetri Observatory, Florence, Italy (lecture series)

Italian National Graduate School, Elba (lecture series)

XIth Canary Islands Winter School, Tenerife (lecture series)

2001: VIth National Lecture Series, Rio de Janeiro, Brazil (lecture series)

Lansdowne Lectures, University of Victoria (lecture series)

Japanese Society for Promotion of Science, Japan (invited lectures)

2004 Instituto de Astronomia, UNAM, Mexico (lecture series)

2006 ‘Frontiers of Astronomy’, Biblioteca Alexandrina, Alexandria, Egypt (lecture series)

‘First Light in the Universe’, Saas-Fee, Swiss Society of Astrophysics & Astronomy (lecture series)

University of Toronto (extended visit)

Space Telescope Science Institute (John Bahcall Distinguished Professor)

2007 ‘Multiwavelength Analyses of Galaxy Populations’, European Research Training

Summer School, Seeon, Germany (lecture series)

2010 Sterrewacht Leiden, Netherlands (Oort lecture series)

Australian Astronomical Observatory (extended visit)

2011 Institute for Physics and Mathematics of the Universe, Tokyo (lecture series)

Next Generation Telescopes Science Institute, University of California, Santa Cruz

(Distinguished Visitor Program)

2018 Raymond & Beverly Sackler Distinguished Professor, University of Tel Aviv, Israel

(lecture series)

2019 FINCA-ESO Visiting Professor, Finland (lecture series)

2022 Hunstead Visiting Professor, Australia (colloquia across Australia & workshops)

**Teaching Experience:**

***University of Durham (1974-1993)***

1974-77: Practical Optics and Astrophysics (Undergraduate year 3, weekly)

1981-83: Atmospheric Physics (Undergraduate year 1, 12 lectures, enrolment 80)

1981-83: Electricity & Magnetism (Undergraduate year 1, 36 lectures, enrolment 100)

1981-83: Practical Physics (Undergraduate year 2, weekly)

1985-88: Astrophysics (Undergraduate year 3, 36 lectures, enrolment 80)

1985-88: Practical Physics (Undergraduate year 1, weekly)

1974-93: Numerous postgraduate courses in astronomy, statistics and instrumentation

***University of Cambridge (1995-1999)***

1994: Galaxy Evolution (Postgraduate, 8 lectures, enrolment 20)

1995: Gravitational Lensing (Postgraduate, 8 lectures, enrolment 20)

1995-99 : Physical Cosmology (Undergraduate year 3, 24 lectures, enrolment 15)

1998-99: Astrophysics Projects (supervision of year 3 and 4 physics students

undertaking extended research projects)

***California Institute of Technology (2000-2015)***

2000-4,2010- Structure and Dynamics of Galaxies (20 lectures, enrolment 15)

2000-2 Research Conference in Astronomy (journal club, enrolment 20)

2005- Laboratory Astrophysics (8 practical classes, enrolment 9)

2005- Research Topics in Extragalactic Astronomy (4 lectures, enrolment 5)

2007- Stellar Structure and Stellar Evolution (16 lectures, enrolment 12)

2008- Research Topics in Extragalactic Astronomy (4 lectures, enrolment 10)

***University College London (2017-)***

2017-21 Stellar Structure & Evolution (6 lectures, enrolment 20)

2018- Astrophysics Group Observational Project (10 sessions, enrolment 20)

2019- Modern Physics, Astronomy & Cosmology (10 lectures, enrolment 70)

### External Undergraduate Examining

1986-88: Department of Astronomy, University of Edinburgh

1987-88: Department of Physics, Queen’s University, Belfast

1990-93: Department of Astronomy, University of St Andrews

1992-93: Department of Physics, Queen Mary and Westfield College, London

### External Postgraduate Examining

1978- present: Examined 54 Ph.D. and Master’s theses at the Universities of London; Oxford;

Cambridge; Durham; Edinburgh; St. Andrews; Cardiff; Groningen; Leiden; Victoria BC; Paris; Toulouse; Pisa; Australian National University; INAOUE, Mexico; Caltech; ETH Zürich

## Ph.D STUDENTS

**Ph.D. Students (34 completed theses, all but 4 still in academia/research, 17 full professors)**

Student Dates Thesis title Current position

David Axon\*  1970-1974 Optical Polarization of M82 and the Local Spiral Arm Head of School, Math & Physical Sci, U Sussex (deceased)

Steven Phillipps 1975-1979 Correlation Analysis of Deep Galaxy Samples Emeritus Professor of Astrophysics, Bristol University

Iain Inglis 1979-1986 Spectroscopic Studies of Supergiant Elliptical Galaxies Associate, Plum Consulting

Bahram Mobasher 1982-1986 An Infrared Study of a Sample of Optically Selected Galaxies Professor of Astronomy, UC Riverside

Iain MacLaren 1983-1987 Studies of Distant Clusters of Galaxies Director, Centre for Excellence in Learning & Teaching,

National University of Ireland at Galway

Tom Broadhurst 1984-1989 A Faint Galaxy Redshift Survey and Implications Research Professor, University of Basque Country

for Cosmology

Richard Bower\*  1986-1990 The Stellar Populations of Early-type Galaxies in Groups Professor of Astronomy, Durham University (deceased)

and Clusters

Alfonso Aragòn-

Salamanca 1988-1991 Optical and Infrared Studies of Distant Galaxies Professor of Astronomy, Nottingham University

Ian Smail 1989-1993 Gravitational Lensing by Rich clusters of Galaxies Emeritus Professor of Astronomy, Durham University

Jeremy Heyl 1992-1994 Galaxy Evolution: Observations, Analysis and Theory Professor & Canada Research Chair, U British Columbia

Francisco Castander 1993-1996 X-ray studies of High Redshift Galaxies Scientific Investigator, IEEC, Barcelona

Amy Barger 1993-1996 The Morphological Evolution of Galaxies in Distant Clusters Henrietta Leavitt Professor of Astronomy, U Wisconsin

Tim Ebbels*\** 1994-1998 Galaxy Evolution from Gravitational Lensing Studies with Professor, Faculty of Medicine, Imperial College

the Hubble Space Telescope London

Jarle Brinchmann*\** 1995-1999 The Physical Evolution of Field Galaxies Director, Institute for Astrophysics & Space Science, Porto

Felipe Menanteau*\** 1996-2000 The Evolutionary History of Field Ellipticals Research Associate Professor, NCSA, U Illinois

Meghan Gray*\** 1997-2001 Wide-Field Optical and Infrared Observations Professor of Astronomy, Nottingham University

of Weak Gravitational Lensing

Mark Sullivan 1998-2001 Astrophysical Tracers of the Cosmic Star Formation History Professor of Astrophysics, Southampton University

David Bacon*\** 1998-2002 The Detection and Measurement of Cosmic Shear Professor of Cosmology, University of Portsmouth

Andrew Firth\* 1998-2002 Galaxy Evolution from Multi-Colour Surveys Professor, Department of Pathology, Cambridge U

Richard Massey\* 2000-2004 Gravitational Lensing with High Resolution Imaging Professor of Physics, Durham U

Mike Santos\* 2000-2003 Galaxy Formation at the Time of Reionization Vice-President for Science, Foundation for NIH

David Sand\* 2001-2005 On the Distribution of Dark Matter in Clusters of Galaxies Associate Professor, University of Arizona

Kevin Bundy\* 2002- 2006 The Mass Assembly History of Galaxies Assistant Professor, UC Santa Cruz

Sean Moran\* 2003- 2007 Understanding the Physical Processes Driving Galaxy Staff Scientist, Smithsonian Astrophysical Observatory

Evolution in Clusters

Daniel Stark 2004 -2008 Observing Galaxy Formation During the First 2 Billion Years Professor, University of Arizona

Tucker Jones 2007- 2012 Detailed Studies of High Redshift Galaxies Associate Professor, UC Davis

Sarah Miller\* 2008 -2012 The Assembly History of Disk Galaxies US Government

Andrew Newman 2007- 2013 Dark Matter and the Assembly History of Staff Member, Carnegie Observatories

Massive Galaxies and Clusters

Matt Schenker 2009- 2014 How Did Galaxies Reionize the Universe? Quantitative Researcher, Process Driven Training, New York

Sirio Belli 2010- 2015 Deep Near-Infrared Spectroscopy of High Redshift Galaxies: Assistant Professor, University of Bologna

The Physical Growth of Passive Systems

Nicha Leethochawalit\* 2013-2019 Spectroscopy of Galaxies: Evolution of Escape Fractions, Research Astronomer,

Metallicity Gradients and Stellar Metallicity National Astronomical Research Institute of Thailand

Guido Roberts-Borsani\* 2015-2019 Galactic-Scale Outflows in Galaxies of the Local Universe SNSF Postdoctoral Fellow, University of Geneva, Switzerland

Tom Fletcher\* 2016-2020 The Ionising Output and Gas Content of Galaxies Research Associate, King’s College London

Romain Meyer\* 2017-2020 The Role of Galaxies and Quasars in Reionising Postdoctoral Scholar, University of Geneva, Switzerland

the High Redshift Intergalactic Medium

* *Jointly supervised with (in order of appearance) Michael Scarrott, Carlos Frenk, Jean-Paul Kneib, Roberto Abraham(2), Alexandre Refregier(2), Ofer Lahav, Alexandre Refregier, Marc Kamionkowski, Tommaso Treu, Chris Conselice, Tommaso Treu, Mark Sullivan, Evan Kirby, Amelie Saintonge(2), Andrew Pontzen.*

**Postdoctoral Research Assistants\* (31, all but one remain in academia/research)**

**Postdoc Dates Institution Current Position**

Ray M Sharples 1981-84 Durham Emeritus Professor, Durham U

Warrick J Couch 1982-85 Durham Emeritus Director, Australian

Astronomical Observatory

Matthew Colless 1986-89 Durham Emeritus Director, Mt Stromlo

Observatory, ANU

Karl Glazebrook 1991-95 Durham/ Distinguished Professor, CAS,

/Cambridge Swinburne U

Alfonso

Aragòn-Salamanca 1991-94 Durham/ Professor, Nottingham U

Cambridge

Jean-Paul Kneib 1994-97 Cambridge Professor, EPFL, Lausanne

Marie Treyer 1994-97 Cambridge CNRS Scientist, LAM

Laurence Tresse 1995-97 Cambridge Professor, LAM

Roberto Abraham 1994-98 Cambridge Professor, U. Toronto

Alexandre Refregier 1998-99 Cambridge Professor, ETH, Zürich

Tommaso Treu 2000-03 Caltech Professor, UCLA

Chris Conselice 2001-02 Caltech Professor, Manchester U

Graham Smith 2002-05 Caltech Professor, Birmingham U

Jason Rhodes 2003-04 Caltech Senior Research Scientist, JPL

James Taylor 2004-06 Caltech Associate Professor,

Waterloo U

Richard Massey 2004-08 Caltech Professor, Durham U

Johan Richard 2005-08 Caltech Assistant Astronomer, Lyon

Lauren MacArthur 2005-08 Caltech Postdoctoral Assistant,

Princeton U

Tom Targett 2007 Caltech Associate Professor

Sonoma State U

Kuenley Chiu 2008-09 Caltech C3 Internet of Things

Jeff Cooke 2009-10 Caltech Professor, Swinburne U

Carrie Bridge 2009-15 Caltech Science Ops Coordinator, Mars

Rover Laboratory, JPL

Alessandro Rettura 2012-13 Caltech Payload/Science Engineer, JPL

Nicolas Laporte 2016-19 UCL Assistant Astronomer, LAM

Kimihiko Nakajima 2016-18 ESO Assistant Professor, NAOJ

Koki Kakiichi 2016-19 UCL Assistant Professor, DAWN

Sarah Bosman 2017-20 UCL Research Fellow, Institute for

Theoretical Physics, Heidelberg

Guido Roberts-Borsani 2019 UCL SNSF Fellow, Geneva

Yuichi Harikane 2019-20 UCL Assistant Professor, Tokyo

Aayush Saxena 2020-22 UCL Postdoctoral Assistant, Oxford

Mengtao Tang 2020-22 UCL Postdoctoral Assistant, Arizona

\*Close collaborators funded from personal or institutional grants

**Observing Experience (present at telescope or remote observing facility):**

10.0 metre Keck II Telescope 148 nights (total awarded as PI 163)

10.0 metre Keck I Telescope 142 nights (total awarded as PI 132)

8.3 metre Subaru Telescope 8 nights

8.2 metre ESO VLT (Visitor Mode) 4 nights

8.2 metre ESO VLT (Service Mode) 70.6 hours

5.0 metre Palomar Telescope: 25 nights

4.2 metre William Herschel Telescope: 87 nights

4.0 metre Cerro Tololo Telescope: 4 nights

3.9 metre Anglo Australian Telescope: 135 nights

3.8 metre UK Infrared Telescope: 71 nights

3.6 metre European Southern Obs: 5 nights

3.6 metre Canada France Hawaii: 8 nights

3.5 metre New Technology Telescope: 5 nights

2.5 metre Isaac Newton Telescope: 53 nights

2.5 metre Du Pont Telescope 5 nights

1.5 metre ESO/Danish Telescope: 7 nights

1.2 metre UK Schmidt Telescope: 7 nights

1.0 metre Lick Observatory: 8 nights

1.0 metre Wise Observatory: 7 nights

1.0 metre Australian National Obs.: 6 nights

IUE Satellite: 13 shifts

**Total equivalent 753 nights**