



## Thesis Prize Winners

*The Michael Penston and Keith Runcorn (formerly the Blackwell) Thesis Prizes are awarded for the best doctoral thesis in astronomy or geophysics respectively.*

<b>Year</b>	<b>Michael Penston Thesis Prize (Astronomy)</b>	<b>Keith Runcorn Thesis Prize (Geophysics)</b>
2017		
2016	<p>Dr Justin Alsing (Imperial) <i>Bayesian analysis of weak lensing</i></p> <p>Runners up: Dr Antonia Bevan (UCL) <i>Dust-Affected Models of Characteristic Line Emission in Supernovae</i> Dr Tom Loudon (Warwick) <i>The composition and dynamics of exoplanet atmospheres</i></p>	<p>Dr Rishy Mistry (Imperial) <i>Magnetic reconnection exhausts in the solar wind.</i></p> <p>Runner up: Dr Robert Green (Cambridge) <i>The structure and seismicity of Icelandic rifts</i></p>
2015	<p>Dr Matt Nicholl (Queen's University Belfast) <i>Observations and modelling of super-luminous supernovae</i></p> <p>Runner up: Dr Alexandre Barreira (Durham University) <i>Structure formation in modified gravity cosmologies</i></p>	<p>Dr Matteo Ravasi (University of Edinburgh) <i>Reciprocity-based imaging using multiply scattered waves</i></p> <p>Runner up: Dr Callum Shakespeare (University of Cambridge – now Australian National University) <i>On the generation of waves during frontogenesis</i></p>
2014	<p>Dr Guido Pettinari (University of Sussex) <i>The intrinsic bispectrum of the Cosmic Microwave Background</i></p> <p>Joint runners up: Dr David Harvey (University of Edinburgh - now at Ecole Polytechnique Federal de Lausanne) and Dr Boris Leistedt (University College London) <i>Measuring the self-interaction cross-section of dark matter with astronomical particle colliders</i>"; &amp; "Accurate Cosmology with Galaxy and Quasar Surveys"</p>	<p>Dr Hannah Christensen (née Arnold) (University of Oxford) <i>Stochastic Parametrisation and Model Uncertainty</i></p> <p>Runner up: Dr Grace Nield (Newcastle University) <i>The Effect of Late Holocene Ice-Mass Changes on Glacial Isostatic Adjustment in West Antarctica</i></p>

- 2013 Dr Joseph Elliston (University of Sussex)  
*Observable predictions of generalised inflationary scenarios*
- Runner up: Dr Emma Chapman (University College London)  
*The Epoch of Reionization (EoR)*
- 2012 Dr Adam Ingram (University of Durham)  
*A physical model for the variability properties of X-ray binaries*
- Runner up: Dr Stephen Feeney (University College London)  
*Novel Algorithms for Early Universe Cosmology*
- 2011 Dr Ryan Cooke (University of Cambridge)  
*Finding the First Metals*
- Runners up: Dr Adrian Barker (University of Cambridge)  
*Tidal Interactions between Planets and Stars*
- and
- Dr David Sobral (University of Edinburgh)  
*The Star-Formation History of the Universe*
- 2010 Dr Duncan Forgan (University of Edinburgh)  
*Probing Self-Gravitating Discs Using Smoothed Particle Hydrodynamics with Radiative Transfer*
- Runner up: Dr Andrew Eyre (University of Oxford)  
*On the Dynamics of Tidal Streams in the Milky Way Galaxy*
- 2009 Dr Baojiu Li (University of Cambridge)  
*Physical and Cosmological Implications of Modified Gravity Theories*
- Dr Richard Walters (University of Leeds)  
*Geodetic observation and modelling of continental deformation in Iran and Turkey*
- Runner up: Dr Alex Chartier (University of Bath)  
*Ionospheric Specification and Forecasting*
- Dr Sudipta Sarkar (University of Southampton)  
*Glacial stratigraphy, gas-escape features and ocean fine-structures from multichannel high resolution reflection seismic data offshore West Svalbard*
- Runner up: Dr Nicholas Johnson (University of Edinburgh)  
*Magnetotelluric studies of the crust and upper mantle in a zone of active continental breakup, Afar, Ethiopia*
- Dr David Kipping (University College London)  
*The Transits of Extrasolar Planets with Moons*
- Runner up: Dr David Andrews (University of Leicester)  
*Planetary-Period Oscillations in Saturn's Magnetosphere*
- Dr James Verdon (University of Bristol)  
*Microseismic monitoring and geomechanical modelling of CO<sub>2</sub> storage in subsurface reservoirs*
- Runner up: Dr Richard Morton (University of Sheffield)  
*Magneto-seismology: The influence of the properties of solar waveguides on MHD wave propagation*
- Dr David Halliday (University of Edinburgh)  
*Surface Wave Interferometry*

- Runner up: Dr Emily Curtis  
(University of Cambridge)  
*A Submillimetre Survey of Clustered Low-Mass Star Formation*
- Runner up: Dr Lasse B. N. Clausen  
(University of Leicester)  
*Ultra-low frequency waves in the magnetosphere*
- 2008 Dr Kevin Schawinski (University of Oxford)  
*The Star Formation History of Early-type Galaxies*
- Dr David Jess  
(Queen's University Belfast)  
*High-cadence observations of the solar atmosphere*
- Runner up: Dr Rita Tojeiro  
(University of Edinburgh)  
*Analysing observables in structure formation theories*
- Runner up: Dr Remco de Kok  
(University of Oxford)  
*Oxygen compounds, aerosols and condensate clouds in Titan's stratosphere*
- 2007 Dr Joern Geisbuesch  
(University of Cambridge)  
*Cosmology with Sunyaev-Zel'dovich Cluster Surveys*
- Dr Leigh Fletcher (University of Oxford)  
*Saturn's Atmosphere: Structure and Composition from Cassini/CIRS*
- Runner up: Dr Joseph Zuntz  
(Imperial College London)  
*Cosmic Microwave Background Power Spectrum Estimation and Prediction with Curious Methods and Theories*
- Runner up: Dr Dirk-Jan van Manen  
(University of Edinburgh)  
*Time-reversal and Interferometry with applications to forward modeling of wave propagation and a chapter on receiver functions*
- 2006 Kate Land (Imperial College, London)  
*Exploring anomalies in the Cosmic Microwave Background*
- Dr Sophie Bassett (University of Durham)  
*Modelling sea-level observations to investigate the source and magnitude of major meltwater pulses during termination I*
- Runners up: Dr James Bolton  
(University of Cambridge)  
*Exploring the ionisation state of the intergalactic medium with Lyman-alpha absorption*
- Runner up: Dr James While  
(University of Leeds)
- and
- Dr Adam Moss (University of Manchester)
- 2005 Dr Haley Gomez (nee Morgan)  
(Cardiff University)  
*The Origin and Evolution of Dust*
- Dr Phillip Livermore (University of Leeds)  
*Magnetic stability analysis for the geodynamo*
- Runners up: Dr Jeanne Wilson  
(University of Oxford)
- Runner up: Dr Trudi Hoogenboom  
(University of Leeds)

*A Measurement of the 8B Solar Neutrino Energy Spectrum at the Sudbury Neutrino Observatory*

and

Dr Carrie Trundle

2004 Dr Clive Dickinson  
(University of Manchester)  
*Diffuse Galactic Radiation and its Application To CMB Observations*

*Gravity and Topography Signatures of Venusian Coronae*

Dr Paul Williams (University of Oxford)  
*Nonlinear interactions of fast and slow modes in rotating, stratified fluid flows*

Runner up: Dr James Wookey  
(University of Leeds)  
*Modelling and interpreting seismograms for 3D Earth structure: A study of mid-mantle anisotropy*

2003 Dr Samuel Leach (University of Sussex)  
*Precision inflationary perturbations and cosmic microwave background anisotropies*

Dr Clare Watt (British Antarctic Survey)  
*Wave-particle interactions and anomalous resistivity in collisionless space plasmas*

Runners up: Dr Chris Blake (University of Oxford)  
*Large-scale structure via wide-area radio surveys*

and

Dr Darren Madgwick (University of Cambridge)  
*2dF Galaxy Redshift Survey: Galaxy Spectra and Cosmology*

2002 Dr Mark Wright (University of Bristol)  
*Probing the star-forming region W3(OH) with ground-state hydroxyl masers*

Dr Emma Bunce (University of Leicester)  
*Large-scale current systems in the jovian magnetosphere*

Runners up: Dr Loretta Dunne  
(Cardiff University)  
*The First Statistical Survey of the Submillimetre Properties of Local Galaxies*

Runners up: Dr Kathryn Hardacre  
(University of Edinburgh)  
*Controls on Fault Network Evolution and Population Statistics – Insights from Field Studies and Numerical Modelling*

and

Dr Ole Moeller (University of Cambridge)  
*Numerical Methods for Gravitational Lensing*

and

Dr Claire Newman (University of Oxford)  
*Modelling the dust cycle in the Martian atmosphere*

- 2000 Dr Andrew Benson (University of Durham)  
*Galaxy formation and clustering in a hierarchical universe*
- Runners up: Dr Sara Ellison  
(University of Cambridge)
- and
- Dr Rob Hynes (University of Sussex)  
*Observations of Low Mass X-ray Transients in Outburst*
- Dr Dave Skeet (University of Oxford)  
Equatorial and midlatitude circulation of Jupiter's atmosphere
- Runners up: Dr Mimi Hill  
(University of Liverpool)  
*The Microwave Paleointensity Technique and its Application to Lava*
- and
- Dr Dan Raymer (University of Leeds)  
*The significance of salt anisotropy in seismic exploration*
- 1999 Dr Anthony Challinor  
(University of Cambridge)  
*Applications of Geometric Algebra in Physics and Cosmology*
- Runners up: Dr Eric Bell  
(University of Durham)  
*Exploring the star formation histories of galaxies*
- and
- Dr Harald Kuntschner  
(University of Durham)  
*The star formation history of early-type galaxies in the fornax cluster*
- Dr Marcus Brüggén  
(University of Cambridge)  
*Physics of the Sun*
- Runners up: Dr Claire Price  
(Imperial College London)
- and
- Dr Anna Vickery  
(University of Edinburgh)
- 1998 Dr Steven Rogers  
*The Nature of Cometary and Interstellar Ices*
- Runners up: Dr Simon Dicker  
(University of Manchester)
- and
- Dr Tiziana Di Matteo  
(University of Cambridge)
- and
- Dr David Strickland
- Dr Mark Muller (University of Cambridge)  
*Crustal Structure of the Southwest Indian Ridge*
- 1997 Dr Richard Townsend
- Dr Cathryn Mitchell

(University College London)  
*Non-Radial Pulsation in Early-Type Stars*

(University of Wales at Aberystwyth)  
*Tomography of Spatial Structures in Ionospheric Plasmas*

Runner up: Dr Coryn Bailer-Jones  
(University of Cambridge)  
*Neural Network Classification of Stellar Spectra*

Runner up: Dr Stephen Bourne  
(University of Oxford)

1996 Dr John Sleath (University of Cambridge)  
*A new model of spiral galaxies based on propagating star formation*

Dr Tim Horbury  
(Imperial College London)  
*Ulysses observations of magnetic field fluctuations in the heliosphere*

Runners up: Dr Robert Fender  
(Open University)  
*Multiwavelength behaviour of Cygnus X-3 and related objects*

and

Dr Carole Mundell  
(University of Manchester)  
*The Distribution and Kinematics of Neutral and Ionised gas in Seyfert Galaxies*

and

Dr Steven Tobias

1995 Dr Stephen Hancock  
(University of Cambridge)  
*Detections of structure in the Cosmic Microwave Background*

1994

Dr Tim Henstock (Cambridge)  
*The Structure of Oceanic Crust*

1993

Dr Sara Russell (Open University)  
*Diamonds and Silicon Carbide in Chondritic Meteorites*

1992

Dr Douglas Stewart (University of Leeds)  
*Geomagnetic Impulses and the Electrical Conductivity of the Lower Mantle*