

### 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.

Year	Michael Penston Thesis Prize (Astronomy)	Keith Runcorn Thesis Prize (Geophysics)
2019	<p>Dr Luke Pratley (UCL) 'Radio Astronomy Image Reconstruction in the Big Data Era'</p> <p>Runners up: Dr Cleo Loi (Cambridge) 'Magnetic Fields and Stellar Oscillations' and Dr Oliver Tattersall (Oxford) 'Testing Gravity with Black Holes'</p>	<p>Dr Muhammad Atif Nawaz (Edinburgh) 'Efficient Probabilistic Inversion of Geophysical Data'</p> <p>Runner up: Dr Hayley Allison (Cambridge) 'Understanding how low energy electrons control the variability of the Earth's electron radiation belts'</p>
2018	<p>Dr Alexandra Amon (Edinburgh) 'Cosmology with the Kilo-Degree Lensing Survey.'</p> <p>Runner up: Dr Antonella Palmase (UCL) 'Unveiling the unseen with the Dark Energy Survey: gravitational waves and dark matter'</p>	<p>Dr Ophelia Crawford (Cambridge) 'On the Viscoelastic Deformation of the Earth'.</p> <p>Runner up: Dr Fred Richards (Cambridge) 'Global Analysis of Predicted and Observed Dynamic Topography'</p>
2017	<p>Dr Sownak Bose (Durham) BEYOND LCDM: Exploring alternatives to the standard cosmological paradigm</p> <p>Runner up: Dr Ivan Cabrera-Ziri (LJMU) Constraining the Origin of Multiple Stellar Populations within Stellar Clusters</p>	<p>Dr Jenny Jenkins (Cambridge) The seismic signature of the Iceland mantle plume from crust to mid-mantle wind.</p> <p>Runners up: Dr Rohini Giles (Oxford) Jupiter's tropospheric composition and cloud structure from 5-<math>\mu</math>m spectroscopy Dr Nadine Kalmoni (UCL) - The role of magnetospheric plasma instabilities in auroral and substorm dynamics</p>
2016	<p>Dr Justin Alsing (Imperial) Bayesian analysis of weak lensing</p> <p>Runners up: Dr Antonia Bevan (UCL) Dust-Affected Models of Characteristic Line Emission in Supernovae Dr Tom Loudon (Warwick) The composition and dynamics of exoplanet atmospheres</p>	<p>Dr Rishy Mistry (Imperial) Magnetic reconnection exhausts in the solar wind.</p> <p>Runner up: Dr Robert Green (Cambridge) The structure and seismicity of Icelandic rifts</p>
2015	<p>Dr Matt Nicholl (Queen's University Belfast) Observations and modelling of super-luminous supernovae</p>	<p>Dr Matteo Ravasi (University of Edinburgh) Reciprocity-based imaging using multiply scattered waves</p>

	Runner up: Dr Alexandre Barreira (Durham University) Structure formation in modified gravity cosmologies	Runner up: Dr Callum Shakespeare (University of Cambridge) On the generation of waves during frontogenesis
2014	Dr Guido Pettinari (University of Sussex) The intrinsic bispectrum of the Cosmic Microwave Background	Dr Hannah Christensen (née Arnold) (University of Oxford) Stochastic Parametrisation and Model Uncertainty
	Joint runners up: Dr David Harvey (University of Edinburgh - now at Ecole Polytechnique Federal de Lausanne) and Dr Boris Leistedt (University College London) Measuring the self-interaction cross-section of dark matter with astronomical particle colliders"; & "Accurate Cosmology with Galaxy and Quasar Surveys"	Runner up: Dr Grace Nield (Newcastle University) The Effect of Late Holocene Ice-Mass Changes on Glacial Isostatic Adjustment in West Antarctica
2013	Dr Joseph Elliston (University of Sussex) Observable predictions of generalised inflationary scenarios	Dr Richard Walters (University of Leeds) Geodetic observation and modelling of continental deformation in Iran and Turkey
	Runner up: Dr Emma Chapman (University College London) The Epoch of Reionization (EoR)	Runner up: Dr Alex Chartier (University of Bath) Ionospheric Specification and Forecasting
2012	Dr Adam Ingram (University of Durham) A physical model for the variability properties of X-ray binaries	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 Stephen Feeney (University College London) Novel Algorithms for Early Universe Cosmology	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
2011	Dr Ryan Cooke (University of Cambridge) Finding the First Metals	Dr David Kipping (University College London) The Transits of Extrasolar Planets with Moons
	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	Runner up: Dr David Andrews (University of Leicester) Planetary-Period Oscillations in Saturn's Magnetosphere
2010	Dr Duncan Forgan (University of Edinburgh) Probing Self-Gravitating Discs Using Smoothed Particle Hydrodynamics with Radiative Transfer	Dr James Verdon (University of Bristol) Microseismic monitoring and geomechanical modelling of CO <sub>2</sub> storage in subsurface reservoirs
	Runner up: Dr Andrew Eyre (University of Oxford) On the Dynamics of Tidal Streams	Runner up: Dr Richard Morton (University of Sheffield) Magneto-seismology: The

	in the Milky Way Galaxy	influence of the properties of solar waveguides on MHD wave propagation
2009	Dr Baojiu Li (University of Cambridge) Physical and Cosmological Implications of Modified Gravity Theories	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 1
	Runners up: Dr James Bolton (University of Cambridge) Exploring the ionisation state of the intergalactic medium with Lyman-alpha absorption and Dr Adam Moss (University of Manchester)	Runner up: Dr James While (University of Leeds)
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) A Measurement of the 8B Solar Neutrino Energy Spectrum at the Sudbury Neutrino Observatory and Dr Carrie Trundle	Runner up: Dr Trudi Hoogenboom (University of Leeds) Gravity and Topography Signatures of Venusian Coronae
2004	Dr Clive Dickinson (University of Manchester) Diffuse Galactic Radiation and its Application To CMB Observations	Dr Paul Williams (University of Oxford)

- Runner up: Dr James Wookey 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 and Dr Ole Moeller (University of Cambridge) Numerical Methods for Gravitational Lensing
- 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 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
- Dr Dave Skeet (University of Oxford) Equatorial and midlatitude circulation of Jupiter's atmosphere
- Runners up: Dr Sara Ellison (University of Cambridge) and Dr Rob Hynes (University of Sussex) Observations of Low Mass X-ray Transients in Outburst
- 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