

AGP 2018 - This list details the projects that were successful in the 2018 Grant Round and is shown in Top, Middle and Bottom Terciles (Institution order). Where several proposals were submitted by different departments within an Institution, this is identified by a Grant number.

Institution	Project Title
Birmingham	Characterising the properties of black hole/neutron star binaries through GW observations
British Antarctic Survey	Testing the wave theory of electron acceleration at Jupiter and Saturn
Cambridge	Streams and SubHalos in the Gaia Era
Cambridge	Debris Disks: Probing the Outcome of Protoplanetary Disk Evolution
Cambridge	Harvesting the science from ALMA imaging of planet forming discs: the power of GALARIO
Cambridge	Fundamental Cosmology from CMB Lensing with Simons Observatory
Cardiff	PEBBLeS in Planet-Forming Systems
Imperial College London 3	Accurate New Atomic Data for Astrophysics
Imperial College London 3	A Bayesian Hierarchical Model for Weak Lensing
Imperial College London 3	Stellar Microvariability
King's College London	New analytical tools to constrain fundamental physics with astrophysics
Leicester 1	Outer Planet Magnetospheres
Leicester 1	Magnetospheric plasma distribution and wave particle interactions in the radiation belts
Leicester 1	Electrodynamics of solar wind-magnetosphere-ionosphere-atmosphere system
Leicester 2	Galactic Seismology with Gaia Data
MSSL 1	A direct diagnosis of the substorm onset instability
MSSL 1	On the location & drivers of plasma release to the solar wind
MSSL 2	Dust emission from star formation and accretion across cosmic history
Newcastle	Internal gravity waves in evolved, intermediate-mass stars
Oxford 1	Clouds in the Giant Planet Atmosphere
Oxford 1	Using OSIRIS-Rex Observations to Place Bennu in its Solar System Context
Oxford 2	From Gas to Galaxies with the MIGHTEE survey
Portsmouth 1	Preparing for the First Neutron Star-Black Hole Detection with LIGO
Portsmouth 1	Primordial Perturbations from Inflation
St Andrews	Global Magnetic Fields
St Andrews	Coronal Heating
Bath	Elimination of H $\alpha$ Systematics with Novel Analysis Techniques
Birmingham	Cosmology and astrophysics of clusters outskirts
Cambridge	Shining light on the Local Group
Cambridge	Towards the SKA: Probing reionization with radiative transfer simulations carefully calibrated with observations of Ly $\alpha$ absorption and emission
Cardiff	PPMAP confronts the formation and fragmentation of filaments and cores
Cardiff	Simons Observatory data analysis preparation
Dundee	Emission Line Tomography of Young Stars
Dundee/Durham	Assessing the contribution of interchange reconnection to the slow solar wind
Imperial College London 1	Astrobiology of the Icy Moons
Imperial College London 2	Solar wind reconnection
Imperial College London 2	Separating the interior and exterior magnetic fields of Saturn
Leeds 1	Magnetic and Thermal Evolution in Magnetars
Leicester 1	X-ray Microanalysis of Martian Meteorites: Differentiation of the Martian Crust
Leicester 1	Solar cycle and dual-spacecraft observations of the Martian ionosphere
Leicester 2	Transient and Multi-Messenger Astrophysics

MSSL 1	How important is kinetic physics in thr solar wind?
MSSL 1	Plasma & radiation interactions with Saturn's moons & rings
MSSL 1	Linking the evolution of elemental composition & magnetic fields on the Sun & other stars
Oxford 1	Turbulence, waves and jets in the atmospheres of Jupiter and Saturn:
Oxford 2	A Census of Radio Pulsars using MeerKAT
Oxford 2	Core support for the WEAVE survey programmes
Oxford 2	Star Formation, Gas and Metals: Constraints on Galaxy Evolution
Portsmouth 1	Supernova Cosmology with DES, LSST and 4MOST
Portsmouth 1	Outreach: Deeper Engagement of Citizen Scientists with Zooniverse
Portsmouth 1	Non-linear Einstein-Boltzmann Cosmology
Warwick	Surveying the atmospheres of TESS planets at high spectral resolution
Aberystwyth	Time-normalized-optical-flow: a new tool for solar data analysis and to understand the nature and drivers of coronal propagating disturbances
Birmingham	Optimal inertial isolation for GW instruments
Cambridge	Ultra-compact binaries in Gaia sky
Cambridge	The Physics of optical and UV emission from quasars and AGN
Cardiff	Galactic centres at the parsec scale: black hole masses, molecular clouds and AGN fuelling across the Hubble Sequence
Cardiff	The Big Neighbour Up Close
Cardiff	Superconducting Detector Technology
Cardiff	On the energy balance, collapse, and mass growth of star-forming clouds
Dundee/Durham	The coronal magnetic memory
Imperial College London 1	Crater scaling and inner solar system bombardment
Imperial College London 2	Physics of the inner heliosphere
Kent	Cometary insights from Stardust foils
Kent	Impact shock synthesis of prebiotic molecules
Leeds 1	Tides in Eccentric and Magnetised Stars and Planets
Leeds 2	Giant Planet Dynamos After Juno and Cassini
Leicester 2	Sgr A*, A Unique Laboratory for Super-massive Black Hole Growth, Feedback and AGN-induced Star Formation
MSSL 1	Unravelling the physics of X-ray aurorae at the giant planets
MSSL 1	Modelling the fields & particles of giant planet magnetospheresGrant
MSSL 2	Euclid Weak Lensing Science Support
Oxford 2	Constraining the composition of small transiting planets
Oxford 2	History and dynamics of our Galaxy
Portsmouth 1	Testing Gravity with Non-linear Structure
Portsmouth 1	3D Mapping of Stellar Populations in Galaxies
Portsmouth 2	The Secular Evolution of Martian Magmatism
QMUL	Neutral Hydrogen intensity mapping with MeerKAT