



2019 Sir Arthur



Clarke Awards

Finalists Announced

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20 November 2019

The Arthur C. Clarke Foundation is pleased to announce the Winners of **the 2019 Sir Arthur Clarke Awards** which recognise and reward those individuals and teams that have made notable or outstanding achievements in, or contributions to, all space activities in the past year, 2018/19. Better known as 'The Arthurs', the Awards have been presented annually since 2005.

Selected once again as the organiser of the awards by the Foundation, The British Interplanetary Society invited nominations from the general public and a nominations panel of senior representatives from all areas of the space sector on Monday 6 May, and extended the Deadline for Nominations to Monday 29 July, three weeks later than planned.

Chosen by a large panel of judges from all parts of the Space community, chaired by Mrs Angie Edwards, niece of Sir Arthur, the three Finalists in each of the nine Award Categories were invited to the Award Ceremony at the British Interplanetary Society's Reinventing Space Conference Gala Dinner **in the International Convention Centre Belfast**, on **Thursday 14 November**, where the winners of the nine Awards and one Special Award were announced.

The 2019 Sir Arthur Clarke Awards Winners

1. Space Achievement - Industry/Project Team

RemoveDEBRIS (Simon Fellowes & Prof. G. Aglietti, University of Surrey)- For Mission success for 4 innovative space debris removal technologies on the RemoveDEBRIS satellite

2. Space Achievement - Industry/Project Individual

Dr Jonathan McDowell - As author of Jonathan's Space Report he has created one of the most authoritative non-governmental sources of information on manufactured space objects.

3. Space Achievement - Academic Study/Research

The Queen's University Belfast 'Oumuamua' Team (Prof Alan Fitzsimmons) - For their investigation of 1I/Oumuamua, the first Interstellar object to be discovered in our Solar System.

4a. Space Achievement - Education and Outreach Team

Space Rocks (Alexander Milas, Twin V and Mark McCaughrean, ESA) - For its continued celebration of space exploration and the art, science-fiction, music, and culture it inspires.

4b. Space Achievement - Education and Outreach Individual

Helen Schell - For her work as a visual artist and a STEM/ESERO-UK Space Ambassador, presenting specialist Moon themed STEAM projects nationwide.

5. Space Achievement - Student

Heidi Thiemann - For her leadership of SpaceCareers.uk, making it the 'go-to' resource for the Space industry, for her careers advice and for her continued support of UKSEDS and its Student Space Conference.

6. Space Achievement - Media, broadcast and written

Sue Nelson – For showcasing the Mercury 13 and the history of women in space through her inspiring book 'Wally Funk's Race For Space' - a lesson on determination, hope and overcoming sexism.

7. Lifetime Achievement

Professor Ken Pounds, University of Leicester- For a 60-year contribution to, and the leadership of, space research in the UK, spanning the Space age, from the first British sub-orbital rocket to the major X-ray observatories.

8. International Achievement

Dr. Alan Stern and the NASA New Horizons team - For not only taking us, as Principal Investigator on the New Horizons mission, to Pluto and the Kuiper Belt, but also for the 29 other sub-orbital and planetary Space missions in which he has been involved.

10. Special Award

Robert Hill, Northern Ireland Space Office and Kx Space Advisor - For his outstanding contribution to and promotion of all Space activities in Northern Ireland and, in particular, for his support for the Reinventing Space Conference 2019.

The 2019 Sir Arthur Clarke Awards Finalists

1. Space Achievement - Industry/Project Team

- **Teledyne-e2v Space Imaging (Dr. Paul Jerram)** - For the critical role it plays in monitoring the health of our planet by providing specialised imagers for each mission.
- **The SSTL GNSS team (Dr. Martin Unwin)**—For the Development of the GNSS Reflectometry Instrument flown on TechDemoSat-1 and the NASA CYGNSS mission.
- **RemoveDEBRIS (Simon Fellowes & Prof. G. Aglietti, University of Surrey)**- For Mission success for 4 innovative space debris removal technologies on the RemoveDEBRIS satellite

2. Space Achievement - Industry/Project Individual

- **Dr Jonathan McDowell** - As author of Jonathan's Space Report he has created one of the most authoritative non-governmental sources of information on manufactured space objects.
- **Elizabeth Seward** - For her many roles promoting the UK space industry and running the UK's Women in Aerospace Network as well her day job.
- **Joanne Wheeler** - For being the driving force behind the Satellite Finance Network, which has held 74 company surgeries, provided 11 years of finance, regulatory and business assistance to over 100 companies, attracted finance companies to the UK and encouraged more UK finance into space.

3. Space Achievement - Academic Study/Research

- **The Queen's University Belfast 'Oumuamua' Team (Prof Alan Fitzsimmons)** - For their investigation of 1I/'Oumuamua, the first Interstellar object to be discovered in our Solar System.
- **Professor Don Pollacco, University of Warwick**- For the creation of the SuperWASP transit telescope and GNOSIS space situation awareness information exchange networks and his role in the PLATO satellite programme.
- **Professor Ian Crawford, Birkbeck, University of London**— For supporting and promoting the scientific and societal reasons for human spaceflight and lunar exploration.

4a. Space Achievement - Education and Outreach Team

- **Space Rocks (Alexander Milas, Twin V and Mark McCaughrean, ESA)** - For its continued celebration of space exploration and the art, science-fiction, music, and culture it inspires.
- **The Ogden Trust Primary Team** - For continuing to develop and support the biggest structured plan to enhance space education in primary schools by upskilling and inspiring teachers to use Space as a context.
- **Curved House Kids and Lucy Hawking** - For the Mars Diary primary education programme, continuing the education impact of Tim Peake's mission and combining STEM with arts based learning.

4b. Space Achievement - Education and Outreach Individual

- **Helen Schell** - For her work as a visual artist and a STEM/ESERO-UK Space Ambassador, presenting specialist Moon themed STEAM projects nationwide.
- **Amelia Piper, MajorTim.space** - For outstanding dedication to voluntary Space/STEM outreach for young people and adults, launching MajorTim.space's Polymath Cerebration Podcast and running the annual 'Space is the Place' event for children, whilst also studying for her exams.
- **Dr Suzie Imber** - For enthusiastically throwing herself into the role as an ambassador for space since her win on the BBC2 'Astronauts – Have you got what it takes?' series whilst still working on her research at Leicester University.

5. Space Achievement - Student

- **Sophia Lee Roberts**- For her enthusiasm in participating in space initiatives like the Space Elevator, in running the King's College London Space Society and her dedication to STEM outreach, particularly the Space Settlement Design Competition and the Galactic Challenge.
- **Heidi Thiemann** - For her leadership of SpaceCareers.uk, making it the 'go-to' resource for the Space industry, for her careers advice and for her continued support of UKSEDS and its Student Space Conference.

6. Space Achievement - Media, broadcast and written

- **B7 Media/Boffin Media (Andrew Mark Sewell, B7 Media and Richard Hollingham/Sue Nelson, Boffin Media)** - For Audible's landmark 10-episode audio docudrama "The Space Race", combining extensive worldwide interviews with dramatic reconstructions, soundscapes and archive, presented by actress Kate Mulgrew.
- **Dr. Kevin Fong, University College London** - For hosting the BBC's comprehensive and informative podcast series "13 Minutes to the Moon", covering the Apollo programme by telling the story of the scientists, engineers, programmers and astronauts through to the final 13 minute descent of the Apollo 11 Lander.
- **Sue Nelson** – For showcasing the Mercury 13 and the history of women in space through her inspiring book 'Wally Funk's Race For Space' - a lesson on determination, hope and overcoming sexism.

7. Lifetime Achievement

- **James Burke-** For a lifetime of service to space broadcasting and science outreach, brought to the fore this year by the Apollo 50 celebrations.
- **Professor Ken Pounds, University of Leicester-** For a 60-year contribution to, and the leadership of, space research in the UK, spanning the Space age, from the first British sub-orbital rocket to the major X-ray observatories.
- **Alan Brunstrom, ESA (retired) -** For his unswerving promotion of the UK Space sector within ESA, his many years of involvement in the Space Innovation Growth Strategy (IGS) and his promotion of the Harwell Space Cluster - a UK showcase.

8. International Achievement

- **Dr. Alan Stern and the NASA New Horizons team -** For not only taking us, as Principal Investigator on the New Horizons mission, to Pluto and the Kuiper Belt, but also for the 29 other sub-orbital and planetary Space missions in which he has been involved.
- **Dr. Matt Mountain, President of the Association of Universities for Research in Astronomy-** For exemplary leadership of Hubble, JWST development and continued high-level advocacy of future flagship space missions.
- **The Event Horizon Telescope Project Team-** For the creation an image of the black hole at the centre of Messier 87, a massive galaxy in the nearby Virgo galaxy cluster 55 million light-years from Earth.

The Reinventing Space Gala Dinner and Awards Ceremony, ICC, Belfast, 14 Nov 2019,

The Dinner and Awards Ceremony in the International Convention Centre (ICC) Belfast marked the end of a very successful 17th Reinventing Space Conference. Though the number of delegates and exhibition stands were slightly lower than expected, the number and quality of the papers and the keynote speeches were well up on previous years.

The ICC Waterfront Belfast put on a fantastic dinner for some 25 Sir Arthur Clarke Award Finalists and 47 delegates and their guests. The evening began with a drinks reception sponsored by the Northern Ireland Space Office and accompanied by an excellent local 3-girl band, 'Jackie Rainey and the Sweet Beats'. Dinner was followed by the Sir Arthur Clarke Awards announced and presented by Alistair Scott who by thanking Dave and Lesley Wright for, back in 2005, coming up with the idea of the Awards to be presented annually at the British Rocketry Oral History Project Dinner at Charterhouse School and for attending the conference and the dinner. Sadly Jerry Stone who designed the Awards and cleared their name with Sir Arthur could not come to Belfast.

The first award, the International Space Achievement Award, was presented to Dr Alan Stern and NASA's New Horizons Team for their exploration of Pluto with Dr Stern accepting the Award in a Skype call from the USA. Then the Lifetime Award, presented to Professor Ken Pounds for his outstanding 60 year contribution to Space, was collected by his representative Ross Burgon from Leicester University. The Industry Individual Award was won by Jonathan McDowell for his highly informative 'Jonathan's Space Report'. He surprised everyone by flying in from the USA to collect the award.

Professor Guglielmo Aglietti of Surrey University accepted the Industry/Project Team Award on behalf of the Surrey University/SSTL Remove DEBRIS Team, again by Skype, but this time from New Zealand, and the award was collected by Martin Unwin of SSTL. Professor Alan Fitzsimmons and Michele Bannister collected the Academic Award for the Queen's University Belfast 'Oumuamua' Team for their study of the first ever recorded interstellar object.

Unfortunately Helen Schell was unable to attend, so Gill Norman collected her Outreach Individual Award for her work as a visual artist and a STEM/ESERO-UK Space Ambassador for her.

The Student Award, won for her leadership of the 'go-to' Space Careers UK Website was graciously accepted by Heidi Thiemann and Sue Nelson who won the Media Award spoke eloquently about her book 'Wally Funk's Race For Space'.

The British Interplanetary Society proposed a Special Award for an individual who has made a unique contribution to the UK space endeavour. They nominated Robert Hill, Director of the Northern Ireland Space Office, Chair of the Northern Ireland Space Special Interest Group and Kx Space Advisor for his outstanding contribution to and promotion of all space activities in Northern Ireland and, in particular, for his support for the Reinventing Space Conference 2019. The space industry of Northern Ireland has been an incredible success story. Launched in November 2019, the Northern Ireland Space Directory lists 54 space-related companies in the province, including major facilities from Bombardier and Thales UK Ltd. Much of this success is down to Robert's tireless efforts on behalf of his local industry.

Finally Alex Milas of TwinV and Mark McCaughrean were invited to the stage to accept the Outreach Team Award for the Space Rocks Team's continued promotion of Space exploration and its links to the arts, music, culture and science. Anna Phoebe (violin) and Anil Sebastian (voice), who recently performed in the Space Rocks extravaganza at the O2 Millennium Dome, then took to the stage to end the evening with the most amazing and emotional mix of music and video - a tremendous finale to a great evening!

NOTES FOR EDITORS

The Sir Arthur Clarke Award 2019 Categories

Though primarily designed to reward UK teams and individuals for their achievements over the past year, the Awards will, once again, include International and Lifetime Achievement categories open to all.

The 2019 categories are:

1. Space Achievement - Industry/Project Team

This award is made for significant or outstanding achievements by a team, in **space projects**. This includes any activity by a commercial or government organisation that designs, manufactures, supplies or operates space systems, equipment or hardware, or supports and promotes the space industry.

2. Space Achievement - Industry/Project Individual

This award is made for significant or outstanding achievements by an individual, in all space activities. This includes any activity by a commercial or government organisation that designs, manufactures, supplies or operates space systems, equipment or hardware, or supports and promotes the space industry.

3. Space Achievement - Academic Study/Research

This award is made for significant or outstanding achievements in space research by a team or individual employed by an academic organisation. This includes research carried out in any subject related to space, whether in science, engineering, medicine, humanities, art or design.

4a. Space Achievement - Education and Outreach (Team)

This award is made for significant or outstanding achievements in space education and outreach by a team. This includes: formal education at all levels, informal education, education about space, education for the space community (e.g. workforce development), education using space assets/resources, and outreach to the general public or specific target groups.

4b. Space Achievement - Education and Outreach (Individual)

This award is made for significant or outstanding achievements in space education and outreach by an individual. This includes: formal education at all levels, informal education, education about space, education for the space community (e.g. workforce development), education using space assets/resources, and outreach to the general public or specific target groups.

5. Space Achievement - Student

This award is made for significant or outstanding achievements by a school, undergraduate or postgraduate student team or individual, for any space-related activity, from basic research to awards and outreach. Nominees must be no more than 28 years of age on 25 July 2018.

6. Space Achievement - Media, broadcast and written

This award is made for significant or outstanding achievements in space media. This includes any media, related to space, such as journalism, documentary, drama or other entertainment or scholarly record in any form, including written, filmed, broadcast, web/internet-based or staged.

7. Lifetime Space Achievement

This award is made for exceptional achievement in an area of space activity. Examples of this might include lifetime achievement, breakthroughs in space science/technology, space undertakings of global impact/significance, etc.

8. International Space Achievement

This award is made for significant or outstanding achievements which either feature or further an important international aspect in an area of space activity. Selection and judging of this award is carried out by the Arthur C. Clarke Foundation.

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