

15th Appleton Space Conference
Thursday 5th December 2019

08.45 – 09.25 **Registration and Refreshments – R22 Lecture Theatre Foyer**

Session 1: Chair - Prof Chris Mutlow, Director, STFC RAL Space

09.30 – 09.40

Welcome
Prof Chris Mutlow

09.40 – 10.00

Leading the New Space Age
Dr Graham Turnock, Chief Executive, UK Space Agency

10.00 – 10.20

Update from the European Space Agency
Dr Dave Parker, Director of Human Spaceflight and Robotic Exploration, ESA

10.20 – 10.40

Transforming our View of the Sun: A New Era of Ground and Space-based Observations
Prof Sarah Matthews, Professor of Solar Physics, University College London

10.40 – 11.00

A New Space Approach to Greenhouse Gas Monitoring
Adina Gillespie, Director of Business Development, Europe GHGSat Inc

11.05 – 11.25

Refreshments Break – R22 Lecture Theatre Foyer

11.30 – 11.50

The Square Kilometre Array: Studying the Universe from the Cosmic Dawn to the Dawn of Life
Prof Phil Diamond, Director General, Square Kilometre Array

11.50 – 12.10

Innovation and Investment Trends in New Space
James Bruegger, Managing Partner, Seraphim Capital

12.10 – 12.30

One Million Interactions
Alison Stephens, ESERO-UK Project Officer, STEM Learning Centre and Network

12.30 – 12.40

Highlight: Women in Aerospace Europe
Liz Seward, Women in Aerospace Europe, Board Secretary & UK Local Group Leader

12.45 – 13.45

Buffet Lunch – R22 Lecture Theatre Foyer

Session 2: Chair – Dr Gillian Wright, Director, STFC UK Astronomy Technology Centre

13.50 – 14.10

Europe to the Moon – A Case for Private Space Exploration Out of Europe
Robert Boehme, Founder, Planetary Transportation Systems GmbH



- 14.10 – 14.30 **The Ice Age of the JWST Era: Mapping the Frozen Voids of the Galaxy**
Dr Helen Fraser, Senior Lecturer, Faculty of Science Technology, Engineering and Mathematics, Open University
- 14.30 – 14.50 **Comet Interceptor: A New ESA Mission to an Ancient World**
Prof Geraint Jones, Professor of Planetary Science, University College London
- 14.50 – 15.10 **Small Wave Big Impact: Sensing Millimetre-Waves from Space**
Dr Manju Henry, Millimetre Wave Technology Group Senior Scientist, STFC RAL Space
- 15.15 – 15.40 Afternoon Tea: 15th Appleton Space Conference Celebration - R22 Lecture Theatre Foyer

Session 3: Chair – Dr Joanna Hart, Harwell Space Cluster Development Manager, STFC

- 15.45 – 16.05 **AWS Ground Station as a Service – The Democratisation of Space**
Phil Cooper, Account Lead Amazon Ground Station EMEA, Amazon Web Services
- 16.05 – 16.25 **QKD Qubesat**
Mamatha Maheshwarappa, Senior Space Systems Engineer, STFC RAL Space
- 16.25 – 16.45 **Next Generation Microwave Imaging of the Polar Regions: The Copernicus Imaging Microwave Radiometer (CIMR)**
Dr Craig Donlon, Principal Scientist for Oceans and Ice, ESA, ESTEC
- 16.45 – 17.05 **Developing Lightweight Deployable Structures for the New Space Age**
Shefali Sharma, Senior Commercial Strategist, Oxford Space Systems
- 17.10 – 17.20 Short Break – R22 Lecture Theatre Foyer

Session 4: 15th Appleton Keynote Lecture; Chair – Prof Chris Mutlow, Director, STFC RAL Space

- 17.25 – 18.15 **The Ethical Robotist: From Robot Ethics to Ethical Robots**
Prof Alan Winfield, Bristol Robotics Laboratory
- 18.20 – 18.30 **Presentation and Conclusion**
Prof Chris Mutlow
- 18.30 – 19.15 Reception for all participants – R22 Lecture Theatre Foyer