

SPACE DOMAIN



Space at UCL

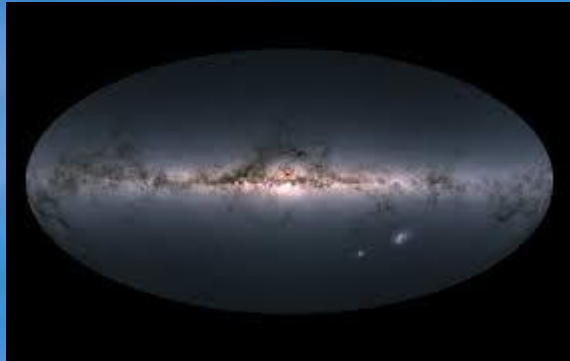
A horizontal banner with a dark, starry space background. The text 'Space at UCL' is written in a bright yellow, bold, sans-serif font.

Professor Alan Smith
Director, UCL Space Domain



The Big Picture

- Space Science



- Safe and Secure Space



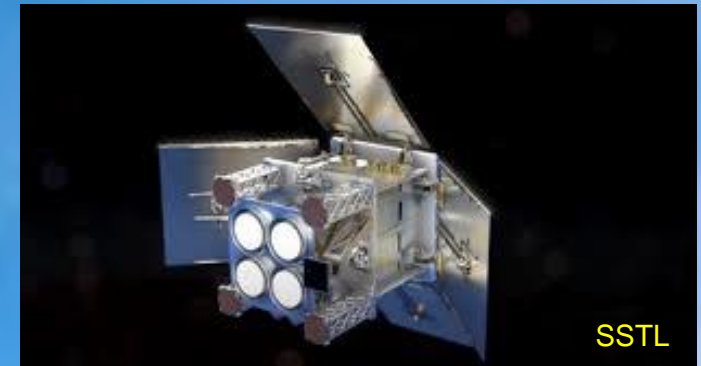
- The Earth from Space



- Our feelings about Space



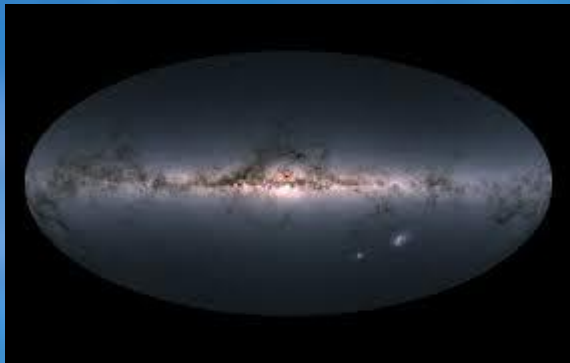
- Commercial Space & Enablers



- Living in Space and Off-World



Space Science



- UCL's track record in space science is spectacular and formative.
- A legacy of the great Harrie Massie
- This week we'll be describing many (7) of the future space science mission in which we have played a leading role and some of the most recently flown (2).

- Mullard Space Science Laboratory
- Department of Physics and Astronomy
- UCL/Birkbeck Centre for Planetary Science

- UCL entities: Anthropology; The Bartlett; Centre for Space Exochemistry Data; Chemical Engineering; Civil, Environ and Geomatic Eng.; Earth Sciences; Electrical and Electronic Eng.; Innovation and Public Policy; Material Discovery; Medical School; Risk and Disaster Reduction; Space Medicine; Space Society; UCLQ...

This week:

Monday

Solar-C
Euclid
Gaia
Solar Orbiter
SMILE

Tuesday

The robotic exploration
of the Solar System
ExoMars
Comet Interceptor

Thursday

PLATO
Ariel

The Earth from Space



- UCL has particular strengths in cryosphere research including Cryosat, and the Centre for Polar Observation and Modeling (CPOM)

This week:

Thursday:

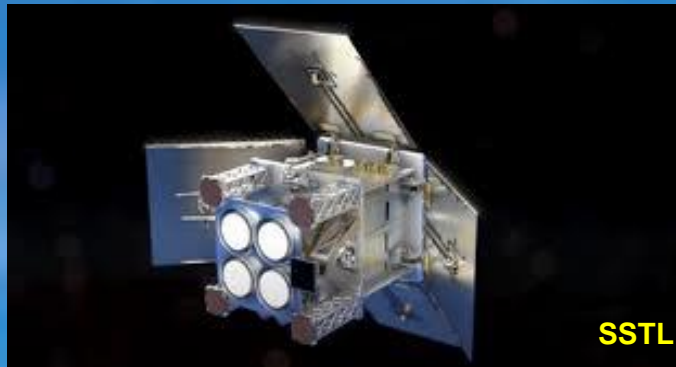
ESA_Lab

Earth Observation

UCL-France Conference
Debat:

Space and Climate

Commercial Space and Enablers



- UCL has a growing interest in the commercial opportunities related to Space
- We've developed excellent relations with the Satellite Applications Catapult with a second collaborative funding call in process.
- There's also a growing community of student space-entrapreneurs.
- MSSL continues to provide services to industry including facility hire and training

This week:

Monday:

IAF
 ESA
 UK Space Agency
 Sat. App. Catapult
 Policy
 UCL space society
 UCL space domain

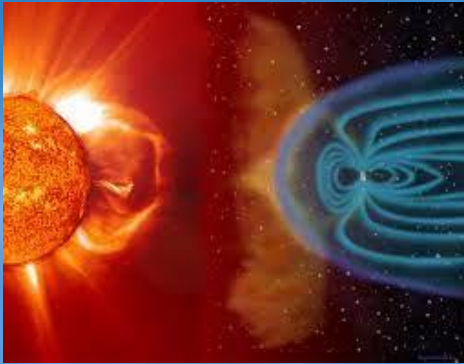
Wednesday:

Space Policy Workshop

Thursday:

ESA_Labs
 Artificial Intelligence
 Satellite comms
 Materials
 Project Management
 & Systems Engineering

Safe and Secure Space



- Free from collisions
- Robust to solar activity

This week:

Thursday:

ESA_Lab

Orbital Dynamics

Space Weather

Our Feelings about Space



- The anthropological view
- How do we relate to space?
- How have we been changed by space and the experiences of astronauts?

This week:

Monday:

COSS

The Artistry of Dan Curry

Tuesday:

The overview effect on missions to Mars

Living in Space and Off-World



- Visiting – Apollo and Artemis
- Working – Science, support, commerce
- Living – indefinite, inhabit, home

This week:

Tuesday:

Humans in Space

Moon and Mars

OWLI

Psychology

Physiology

Risk

Friday:

Debate: “Settling on Mars is essential for the future of humanity”

Looking ahead

- Space is an essential element of our modern world and will play a part in addressing its challenges
- The Space sector is becoming increasingly integrated into almost every aspect of our lives. Its connectivity and interdependence cannot be ignored
- The Space sector is changing, the role of space agencies is evolving, commercial space is growing
- UCL will play its role, enhancing, enabling and influencing the evolving Space sector and using the capabilities that Space offers for the greater good.