



Space Academy

Careersfest 2009

Post-16 Careers Event

Monday 9th November 2009

National Space Centre, Leicester

9.20am – 3.25pm



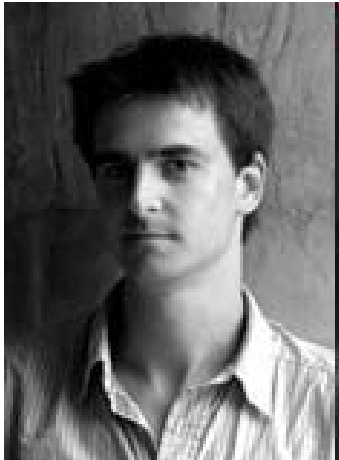
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Keynote Talk

“Astrobiology – the search for Alien life”

Dr. Lewis Dartnell (UCL)



'Astrobiology' is a brand new field of science, encompassing research into the origins and limits of life on our own planet, and where life might exist beyond the Earth. But what actually is 'life' and how did it emerge on our own world? What are the most extreme conditions terrestrial life can tolerate? And what would an alien actually look like - how realistic are the life-forms envisaged by science fiction novels and films over the years? Join Dr. Lewis Dartnell on a tour of the other planets and moons in our solar system which may harbour life, and even further afield to alien worlds orbiting distant stars, to explore one of the greatest questions ever asked: are we alone...?

Dr. Dartnell is a researcher based at University College London, studying how life, and signs of its existence, might survive the intense cosmic radiation on the surface of Mars. Alongside his research he writes regular science articles in newspapers and magazines, and in 2007 published a popular science book introducing astrobiology, “Life in the Universe: A Beginner’s Guide”.

Timetable

Time	Shuttle Suites				JES/Challenger
	Columbia	Atlantis	Discovery	Endeavour	
09:30 ~ 09:40	Welcome and briefing in the Space Theatre/JES				
09:45 ~ 10:10	RAF Fylingdales	Infoterra	University of Leicester	Rolls-Royce	Magna Parva
10:15 ~ 10:40	RAF Fylingdales	Infoterra	University of Leicester	Rolls-Royce	Magna Parva
10:45 ~ 11:10	RAF Fylingdales	Infoterra	University of Leicester	Rolls-Royce	Magna Parva
11:10 ~ 11:25	Break				
11:25 ~ 11:50	PSSRI	EADS Astrium	MSSL	EOS/IESSG	Institute of Astronomy
11:55 ~ 12:20	PSSRI	EADS Astrium	MSSL	EOS/IESSG	Institute of Astronomy
12:25 ~ 12:50	PSSRI	EADS Astrium	MSSL	EOS/IESSG	Institute of Astronomy
12:50 ~ 13:45	Lunch				
13:50 ~ 14:35	Shuttle Suites: Keynote Talk - Dr Lewis Dartnell				Space Theatre: European Space Camp Competition and We Are Astronomers
14:40 ~ 15:25	Shuttle Suites: Keynote Talk - Dr Lewis Dartnell				Space Theatre: European Space Camp Competition and We Are Astronomers

Company Profiles

EADS Astrium

www.astrium.eads.net

EADS Astrium is a world leader in the design and manufacture of satellite systems. Business activities include civil and military telecommunications, Earth observation, science and navigation programmes as well as a complete range of associated ground infrastructure and space equipment

Infoterra

www.infoterra-global.com

Infoterra collects and processes satellite imagery, aerial data and also develops software and host information to provide a total geospatial solution. Its products are used by various industries including agriculture, communications, oil exploration and utilities.

University of Cambridge Institute of Astronomy

www.ast.cam.ac.uk

The University of Cambridge is one of the world's leading astronomical centres, with scientists doing observational and theoretical research into the whole range of hot topics in astrophysics - from the history of the early universe and the formation and evolution of stars and galaxies, to the behaviour of black holes and exotic high-energy phenomena.

RAF Fylingdales

www.raf.mod.uk/raffylingdales

The primary role of the RAF is defence of British and European airspace with additional roles of search and rescue and disaster relief. RAF Fylingdales is one of three radar sites in the Ballistic Missile Early Warning System (BMEWS) and contributes to the global Space Surveillance Network. This tracks man-made objects in Low Earth orbit, giving warning of potential collision events (conjunctions), and re-entry of objects into the earths' atmosphere

MSSL

<http://www.mssl.ucl.ac.uk>

UCL's Mullard Space Science Laboratory carries out research into a wide range of physical phenomena, from the extremes of Earth's climate and the near-Earth space environment to the planets, Sun and astronomical phenomena such as gamma-ray bursts, binary star and quasars. They are also actively involved in the development, construction and exploitation of high precision instrumentation for use on satellites and in the wider world

Company Profiles

**Earth Observation Science (EOS) and
Institute of Engineering Surveying
and Space Geodesy (IESSG)**

www.leos.le.ac.uk

www.nottingham.ac.uk/iessg

The EOS group, based in the Space Research Centre at the University of Leicester is an internationally-recognised multi-disciplinary team researching many aspects of climate, atmospheric and Earth surface science using satellite observations and ground-based sensors. The IESSG is based at the University of Nottingham. It is one of Europe's leading centres developing applications for satellite navigation and positioning systems, as well as conducting research in fields such as photogrammetry, remote sensing, sensor integration and geographical information systems.

The University of Leicester

www.le.ac.uk

The University of Leicester has been involved in space research since 1957 and provides some of the best Space Science based courses in the country.

Rolls-Royce

www.rolls-royce.com

Rolls-Royce is a global engineering company and a world-leader in aerospace engineering, power systems and services for use on land, sea and air.

Magnaparva

www.magnaparva.com

Magnaparva is a young growing company successfully involved in the design and development of specialised instrumentation for the high performance sectors of space, motorsport and automotive industries.

PSSRI

www.open.ac.uk/science/pssri/home.php

The Planetary and Space Sciences Research Institute (PSSRI) at The Open University is involved in designing experiments and building instrumentation for planetary and space missions. Notable mission involvement includes; the Rosetta Mission, Stardust, the Huygens mission to land on Saturn's moon Titan and Beagle 2 – the UK led Mars Lander.