

U3A Explores Science at the Ri

DESCRIPTION

Programme

1.15pm

Audience arrives

1.45pm

Introduction by Martin Davies, Public Programme Manager, Royal Institution.

Ian Crawford – Where are the Aliens?

What can modern results in astrobiology tell us about the prospects for finding intelligent life elsewhere in the Universe? The famous ‘Drake Equation’, which provides a rough estimate of the number of civilisations in our galaxy, predicts that space should be teeming with aliens. So where are they and why have we not found them yet?

2.20pm

Question and answer session (15 minutes)

2.35pm

Michael de Podesta – How do we know anything? And how can we know things better?

Measurement is at the heart of all scientific endeavours. And underpinning every measurement is the International System of Units – ‘The SI’. In 2019 the world will change its definition of four key SI units, including the unit of mass (the kilogram) and temperature (the kelvin and the degree Celsius). Instead of defining these units in terms of arbitrary standards, we will switch to making measurements based on the natural constants of the world around us. In this talk Michael will explain why you should care about this, even though you won’t notice a thing.

3.10pm

Question and answer session (15 minutes)

3.25pm

Tea and coffee (30 minutes)

3.55pm

Catie Williams – Wild at heart but captive in gut: Exploring the effects of life in captivity on the gut microbiomes of rereleased chimpanzees

Life in captivity is known to alter the gut microbiome of primates, where diet, habitat and sociality all change, but what happens when the animals are reintroduced back into the wild? Catie will be speaking about the gut bacteria of captive, wild and rereleased chimpanzees.

4.30pm

Question and answer session (15 minutes)

4.45pm

Close of meeting

About the speakers

Ian Crawford

Ian Andrew Crawford is professor of planetary science and astrobiology at Birkbeck, University of London. Crawford is a specialist in the science and exploration of the Moon and in the search for life in the Universe. Before switching his research interests to planetary science in 2003, Crawford had a 15-year career at University College London as an observational astronomer specializing in studies of the interstellar medium. He is the author of over 130 peer-reviewed research papers in the fields of astronomy, planetary science, astrobiology and space exploration. Crawford is a Fellow, and currently Vice President, of the Royal Astronomical Society, and a former member of the European Space Sciences Committee (ESSC) of the European Science Foundation. In 2014 he was appointed to the European Space Agency's Human Spaceflight and Exploration Science Advisory Committee (HESAC).

Michael de Podesta

Michael de Podesta's is a scientist at the UK's National Physical Laboratory (NPL). His wide-ranging research interests concern all aspects of temperature measurement: from building the most accurate thermometer ever made; to developing industrial sensors capable of surviving harsh conditions; to measuring the temperature underneath the wheel of a train travelling at over one hundred miles per hour; to representing NPL on the steering committee of the International Surface Temperature Initiative.

Catie Williams

Catie Williams is a PhD student at UCL studying the evolution of the primate gut microbiome. Her research asks questions such as whether different primate species have different gut bacteria, how diet plays a role, and what happens to the gut microbiome in captivity.