

Norah Boyce Science Lectures – Autumn term 2023

These lectures will take place by Zoom on Tuesdays at 4.30 pm.

These are open to members only. The link for each lecture is on the Norah Boyce Lectures page of the website (you will need to log in to access this) and will be included in the weekly Bulletin the week prior to the lecture and also emailed to Bulletin recipients in the morning of the Lecture.

Any last-minute changes to the programme will be publicised in the weekly Bulletin.

“Science for Everyone”

24 October The treeline: the last forest and the future of life on Earth

Speaker Ben Rawlence, Award winning writer and Director of the Black Mountains College, Wales

For the last fifty years, the trees of the boreal forest have been moving north. Ben Rawlence will take us along this critical frontier of our warming planet to meet the scientists, residents and trees confronting huge geological changes. It is a journey of wonder and awe at the incredible creativity and resilience of these species and the mysterious workings of the forest upon which we rely for the air we breathe.

7 November The World in 2050 and beyond

Speaker Professor Martin Rees, Lord Rees of Ludlow OM FRS, Patron of U3AC, Astronomer Royal, Past President of the Royal Society

We can venture two fairly firm predictions about the next few decades; the world will get hotter, and global populations will rise. But we can't predict the changing political backdrop, nor the speed and direction of technological advance (in biological sciences, artificial Intelligence and in space). There are reasons for great hopes, but also great fears.

21 November Life after death: how behaviour influences evolution in the burying beetle

Speaker Professor Rebecca Kilner FRS, Head of Department of Zoology & Director of the Cambridge University Museum of Zoology

How does behaviour evolve and how does it then determine subsequent evolution? Our research focuses on the burying beetle (or sexton beetle). The natural history of these animals, and their capacity to undergo experimental evolution in the lab, lets us test directly how behaviour influences evolution.

5 December Design Engineering for Artificial Intelligence Engineering

Speaker Professor Per Ola Kristensson, Co Director of the Centre for Human-Inspired Artificial Intelligence, University of Cambridge

Professor Kristensson will lecture on the use of techniques from systems engineering to build effective, efficient and safe Artificial Intelligence systems that work for people including systems that allow users to type with their eyes and to use virtual tools through augmented reality glasses.

12 December Some progress in understanding the nausea and vomiting of human pregnancy

Speaker Professor Sir Stephen O'Rahilly MD FRS FMedSci, Professor of Clinical Biochemistry and Medicine & Director, Medical Research Council Metabolic Diseases Unit

Most pregnant women experience some nausea and/or vomiting particularly in early pregnancy. In many, these symptoms are sufficiently severe to interfere with working, family and social life. In ~1% of pregnancies the symptoms are extremely severe (hyperemesis gravidarum) and can threaten the life and health of the mother and offspring. In collaboration with colleagues in California, Scotland and Cambridge, we have recently identified the mechanisms responsible for these symptoms. This should lead to effective and safe means of treatment and prevention.