Birmingham Institute of Physics (IOP) Evening Lectures

IOP Institute of Physics

Times and Dates

The lectures start at 7:30 pm and last roughly an hour.

- Tuesday 2nd Nov - Professor David Evans, Recreating the Primordial Soup – the Quark-Gluon Plasma – in ALICE at the CERN LHC
- Tuesday 30th Nov - Professor Mark Dennis, The wonderful world of Topological Design
- Tuesday 1st Feb - Professor Martin Freer, Title - tbc on the topic of nuclear energy
- Tuesday 1st March - Dr Martin Widman, Title - tbc on the topic of the physics of global warming
- Tuesday 29th March – Dr Maria Pavlidou, Title - tbc on the physics of music

Attending in person

We're happy to say lectures are returning to the University of Birmingham Campus and will be held in the Large Lecture Theatre (S02) of the Poynting Building.

Map and directions are found here
https://www.birmingham.ac.uk/contact/directions/index.aspx

To ensure you hear about any last minute changes to the event and so we can plan accordingly please could you register to attend the event in person

Joining remotely

We're now able to offer remote viewing of these talks via zoom, but please note we will not be able to answer questions remotely.

To register please see individual links below or visit our website for future talks.

Other information

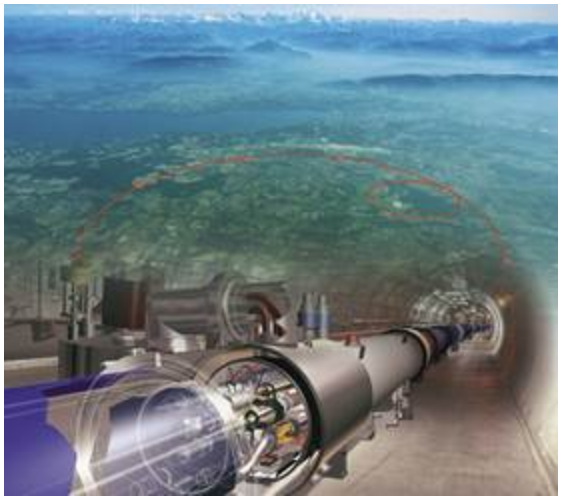
Wearing of facemasks is strongly encouraged inside the building.

We will not be providing refreshments at this time.

Recreating the Primordial Soup – the Quark-Gluon Plasma – in ALICE at the CERN LHC

Professor David Evans

7:30 pm Tuesday 2nd November 2021 - Large Lecture Theatre (S02) Poynting Building, University of Birmingham



The 27km Large Hadron Collider (LHC), situated 100 metres under the Swiss-French border at CERN near Geneva, is the World's most powerful particle accelerator.

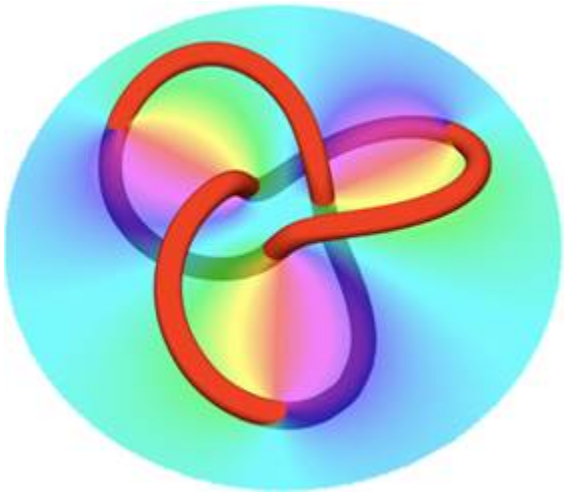
Using the LHC, protons are smashed together at 0.999999991 times the speed of light recreating, for a tiny instant, the violent particle collisions which would have existed less than a billionth of a second after the Big Bang. Lead nuclei are also accelerated and collide in the LHC producing the highest temperatures and densities ever made in an experiment and recreating the exotic primordial soup which existed at the birth of our Universe. Such a state of matter is known as a Quark-Gluon Plasma.

Register to attend in person or via zoom please note we will not be able to answer questions remotely.

The wonderful world of Topological Design

Professor Mark Dennis

7:30 pm Tuesday 30th November 2021 - Large Lecture Theatre (S02) Poynting Building, University of Birmingham



Topology is the science of shape without length — cows can be considered spherical, and coffee cups are equivalent to donuts, but knotted loops stay knotted. It is a way of studying the connectivity of objects, or more generally, networks like the internet. Topological reasoning is shaping new approaches to the design of devices, where their function derives from the shapes of their components, rather than what they are made of.

The University of Birmingham is home to the world's first Centre for Topological Design. Bringing physics together with maths, chemistry, computer science and engineering, we are investigating a spectrum of fascinating problems incorporating topology, from quantum technology and medical imaging to 3D printing ultra-lightweight structures for satellites.

In this talk, Professor Mark Dennis (Professor of Theoretical Physics and Director of the Centre) and some of the Centre's research students will describe some exciting examples of topological design, such as buildings inspired by the structure of shaving foam, and how to make knotted laser beams!

Register to attend in person or via zoom please note we will not be able to answer questions remotely.