

The evolution of science in the 20th century: from quarks to climate change

The 20th century saw some startling advances in our understanding of the natural world, from the discovery of quarks to the ‘big bang’ model of the evolution of the universe. We will consider the changing nature of the practice of science in modern times, from the growing level of complexity in fundamental theories to the emergence of large-scale collaborative experiments such as the Large Hadron Collider. We will also consider changes in the purpose and funding of modern science, from the Manhattan project to today’s search for efficient nanomaterials. Finally, we will consider the recent rise of scepticism about science, particularly in areas such as medicine and climate science.

Dr Cormac O’Raifeartaigh lectures in physics at Waterford Institute of Technology. An experimental physicist by training, his research interests include the study of the history and philosophy of 20th century science. He is a former Research Fellow of the Science, Technology and Society Program at Harvard University, and is currently a Fellow of the UK Institute of Physics, a Fellow of the Royal Astronomical Society and Visiting Associate Professor at University College Dublin. He is best known for several original historical findings concerning the cosmology of Albert Einstein.

