

# AHS London Lecture Thursday 21 September 2017

Mike Edmunds

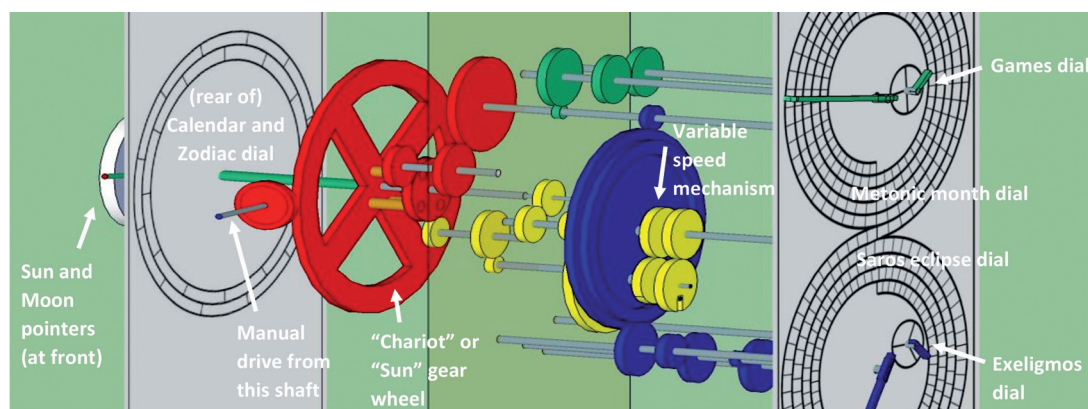
## The Antikythera Mechanism and Mechanical Universes

The idea of a 'Mechanical Universe' tends to be associated with sixteenth and seventeenth century pioneers like Copernicus, Kepler, Galileo and Newton. Yet recent investigations based around the Antikythera Mechanism, an ancient Greek artefact from around 100 BC, reinforce a view that the 'Mechanical' conception has been around for a much longer time – indeed certainly as far back as the third century BC.

The discovery of the structure and functions of the Antikythera Mechanism – a complex device which contained well over thirty gearwheels – will be described and illustrated in detail. A strong claim will be made that knowledge of mechanical representations of the Universe was critical in the development of cosmology and philosophy. There is evidence that the technology persisted until its spectacular and rather sudden re-appearance in Western Europe around 1300 AD. From then it is not hard to chart a path to Kepler's aim (expressed

in a 1605 letter) to 'show that the heavenly machine is not a kind of divine, live being, but a kind of clockwork....'. Mechanical devices to display the 'physics of the heavens' retain their fascination, and we will ask whether they retain their conceptual usefulness in the twenty-first century.

Mike Edmunds is Emeritus Professor of Astrophysics at Cardiff University and former Head of the School of Physics and Astronomy. He was educated at Cambridge, but has lived and worked in Wales for over forty years. His main research career involved the determination and interpretation of the abundances of the chemical elements in the Universe, and investigation of the origin of interstellar dust. Later work has focused on the history of astronomy, and on Science in Society activity. Mike is Chair of the Antikythera Mechanism Research Project, Chair of the Astronomical Heritage Committee and a past-Vice President of the Royal Astronomical Society. He currently chairs the Institute of Physics' Curriculum and Welsh Education Committees.



### TICKETS

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