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LICHFIELD **GARRICK**
Theatre & Studio

PRESIDENT

Professor Rex Harris

FREng., FIMMM, FInstP.

8:00 pm on Wednesday 7th May 2014

in the Studio Theatre of the Lichfield Garrick, Castle Dyke, Lichfield

Newton and Newtonianism

Dr Patricia Fara

Senior Tutor

Clare College, University of Cambridge

Nowadays everybody is brought up to believe in Newtonian physics, and so it can be hard to realise how extraordinary his ideas appeared at the time. Many people still envisaged an Aristotelian universe, with its stark contrast between the eternal perfection of the heavens and the unruly chaos of the terrestrial sphere. By postulating a force of gravity that operated on earth as well as stretching out into the celestial regions, Newton united the cosmos into one single coherent unit. By making gravity follow a simple mathematical relationship – the inverse square law – he emphasised that natural phenomena can, at least in principle, be explained quantitatively, a fundamental shift in approach that was crucial for the foundation of modern science.

Newton has become an icon of Englishness as well as of scientific genius. He is a legendary figure from England's distant past rather than a historical person living at a specific time and place: his colleagues, his biographers and Newton himself all chose to represent him according to their own interests. Many Victorian scientists glorified Newton's modesty, hard work and patience, whereas modern depictions feature a demented alchemist, an eccentric recluse who is tormented by his lust for knowledge and drives himself to the edge of insanity or beyond.

Dr Fara graduated in Physics from the University of Oxford, then spent fifteen years thinking about some of the big questions – Does gravity exist? Do experiments yield definitive proof? What is the difference between me as I am now and me after I have died? – before going to London University to study the history and philosophy of science. She is now the Senior Tutor of Clare College, where she is also Director of Studies in the History and Philosophy of Science. She has written numerous books on the history of science in the eighteenth century, including ones on magnetism, Isaac Newton, women, botany and electricity, and has been a frequent guest on Radio 4's *In Our Time*. Preoccupied by the question of how science has come to dominate modern society she has tried to answer it in *Science: A Four Thousand Year History*, but her most recent book is on Lichfield's very own scientific hero, Erasmus Darwin.

This lecture will be preceded at 7:30 pm by the Society's AGM.

For further information, please see our website at www.LSES.org.uk

**Admission: Visitors £5.00, Students and Members free but please sign in.
Tickets are not issued in advance: visitors please pay at the auditorium door.
This lecture is expected to finish by 10.00 pm.**