

Ripples from the Dark Side of the Universe

by
Jim Hough

Lindop Building
College Lane Campus, Hatfield

Wednesday 28 February 2018 at 7.00pm

Gravitational waves – a prediction of Einstein’s General Relativity – are still among the most elusive signals from far out in the Universe. Over the past decade the laser interferometric detectors LIGO (at Hanford and Livingston in the USA), Virgo (at Cascina in Italy) and GEO 600 (at Ruthe in Germany) have been commissioned and operated at their design or close to design sensitivity. However in keeping with source strength predictions, and as expected, no gravitational wave signals were observed.

Now these detectors have being upgraded observations with the Advanced LIGO detectors have begun again and have already made detections of signals from black hole binary systems. This is particularly exciting as the existence of the black hole system first observed was a surprise to the astronomy community! The Virgo detector in Italy has recently joined the observations. In this talk I will explain the nature of gravitational waves, why it is scientifically important to observe them, potential new results and the highlights of the technology.

Prof Jim Hough is a research Professor at the University of Glasgow and Kelvin Professor of Natural Philosophy Emeritus. He has researched in the gravitational wave field at the University of Glasgow since 1971, is the UK Principal Investigator for the German/UK GEO600 detector and a member of the LIGO Scientific Collaboration.

Joint meeting with the Institute of Measurement and Control

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This event is free but places may need to be reserved.

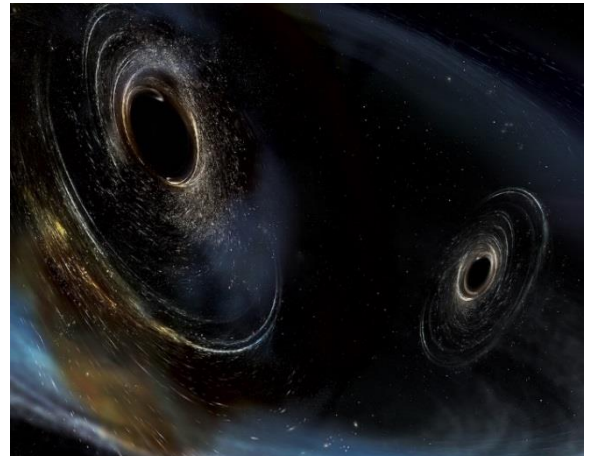


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