

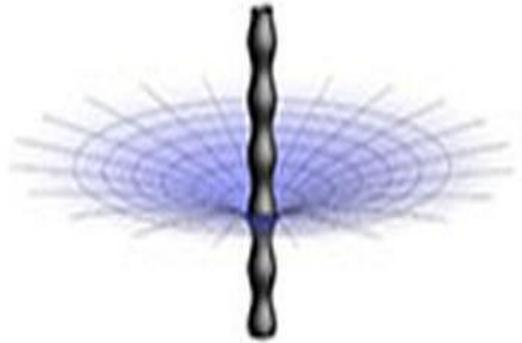
BLACK HOLES AND QUANTUM INFORMATION

A free-to-attend general-interest lecture

by
Prof. Marika Taylor

at 2.00pm on Friday 31st March 2017

IET Building, 2 Savoy Place, London, WC2R 0BL



Synopsis

A quantum computer makes use of the quantum states of subatomic particles to store and process information. Quantum computing has the potential to solve certain types of problems much more quickly than standard computers can do, and thus many researchers are working on developing large scale quantum computers. Remarkably, black holes may play a crucial role in understanding how a quantum computer might work: black holes are the most efficient quantum computers that can exist in Nature. In this talk we will explain what black holes might teach us about quantum computing and conversely what quantum information implies for the fundamental physics of black holes.

Speaker: Prof Marika Taylor, University of Southampton

Marika Taylor studied for her PhD with Stephen Hawking in Cambridge. Following postdoctoral research at Harvard and Cambridge, she held a faculty position at the University of Amsterdam. She moved to the University of Southampton in 2012 as part of the Southampton Theory Astronomy and Gravity (STAG) initiative. Marika was awarded the 2008 Minerva Prize by the Dutch Research Council FOM and was elected a member of the Young Academy of the Dutch Royal Society in 2009.

12:00 to 13:30 – optional lunch.
14:00 to 14:45/15:00 – lecture
14:45/15:00 to 15:30 approx. – questions and discussion

The lecture is free to attend for members and non-members of IET

The meal in Savoy Place will be available for a group price of £16 per person including wine. Those wishing to attend are asked to send an e-mail on or before the preceding Friday, giving name(s), and requesting attendance at either the lunch and lecture or just the lecture to both of the following addresses:

tonydavies@ieee.org and johnfuller500@yahoo.com

Insert the event date in the e-mail subject line [e.g. 31st March 2017 Friday Lunch and Lecture]. No acknowledgement will be sent unless specifically requested. Those attending the lunch should be prepared to pay cash for it at the time (prior to the meal) .

The lecture qualifies for 1½ CPD hours

Visitors are recommended to arrive early enough to allow time for the security check-in procedures; lunch must be paid for in the Faraday Kitchen (level 2) before the meal. The lecture is expected to be in the Mountbatten Room (level 2), the lunch might be in Riverside Room One (level 3):

These Friday afternoon lunch / lecture events are held approximately every month