



PHYSICS AND ASTRONOMY COLLOQUIUM

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“Black Holes: GW150914 and the First Advanced LIGO Observations”

Abstract

On September 14, 2015 at 09:50:45 UTC, the two LIGO Observatories made the first-ever direct detection of gravitational waves at the Earth and the first-ever observation of two black holes merging into one. I will discuss black holes, and go into some of the weird and fascinating properties of space and time in and around them. I will also discuss how GW150914 allows the first-ever test of Einstein's theories under dynamical, extreme gravity conditions, and I will go into the astrophysical implications of our results. In conclusion, I'll mention the prospects for the future. LIGO has opened a new window on the universe, allowing us to “listen” for gravitational waves, and this is only the beginning!

Wednesday, March 23, 2016

3:00 p.m.

Bob Wright Centre

Room A104