School of Physics and Astronomy

COLLOQUIUM

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OzHF: The Science Case for a High-Frequency Gravitational-Wave Observatory

The first detection of gravitational waves from a neutron star collision, and the subsequent campaign of electromagnetic observations, ushered in a new era of multimessenger gravitational-wave astronomy. This event, GW170817, gave unprecedented insights into the behaviour of bulk nuclear matter at supranuclear densities. I will review what we learned about neutron star physics from electromagnetic and gravitational-wave observations of GW170817, and outline some of the things we hope to learn in the near future. I will also outline the design concept and science case for a proposed new detector: OzHF, a dedicated high-frequency gravitational-wave detector whose main science goal is to determine the neutron star equation of state to unprecedented precision.

Date:	Wednesday 26 February
Time:	2pm
Venue:	L1, Seminar Room 107, 10 College Walk, Clayton

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