

## PHYSICS AND ASTRONOMY CAP LECTURE

## Dr. Locke Spencer

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## "The Far-Infrared Universe: From star formation to the cosmic microwave background"

## **Abstract**

Over half of the energy emitted by the Universe appears in the relatively unexplored Far-Infrared (FIR) spectral region, which is virtually opaque from the ground and must be observed by space-borne instrumentation. The European Space Agency (ESA) Planck and Herschel Space Observatories, launched together on 14 May 2009, have both provided pioneering observations in this spectral range from star and planet formation to the intensity and polarization of the cosmic microwave background. Herschel and Planck completed observations in April and October of 2013, respectively. Although data analysis efforts within the instrument teams are ongoing, both have provided data and analysis tools to ESA public archives in 2014. Recent Planck and Herschel results are presented with a discussion of the development of, and Canadian participation in, the future of FIR astrophysics.

Wednesday, April 1, 2015 3:30 p.m. Bob Wright Centre Room A104