



DEPARTMENT OF **PHYSICS & ASTRONOMY**

COLLOQUIUM SPEAKER SERIES



Off the Beaten Path With the Herschel SPIRE Spectral Feature Finder

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**Tues, January 28, 2020
1:40-2:55PM
SA6010**

**Free. Everyone welcome.
No RSVP required.
Donuts and coffee.**

The European Space Agency (ESA) Herschel Mission concluded observation of the Far-infrared (FIR) Universe in 2013, providing a wealth of observations of the interstellar medium and distant galaxies. The Spectral and Photometric Imaging Receiver (SPIRE), one of Herschel's three instruments, consists of an imaging photometer and an imaging Fourier Transform Spectrometer (FTS). The SPIRE team has developed an automated routine to extract spectral features from all SPIRE FTS observations. This presentation introduces FIR astronomy and instrumentation. The SPIRE instrument and the Feature Finder project are also introduced.

This presentation concerns the methods by which the molecular and atomic transitions of the lines extracted from SPIRE FTS observations are identified, and presents these identification results. The application of the feature finder to SPIRE FTS off-axis detectors is also detailed and presented.

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