



Department of Physics and Astronomy Presents

The Herschel / SPIRE Spectral Feature Finder Catalogue



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1:40 pm, Room C640, U Hall

Lecture 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) Herschel Space Telescope provided the first full-sky and broad-band access to the cosmos in the FIR spectral region. Herschel was comprised of three instruments which conducted imaging and spectroscopy in the FIR, including the Spectral and Photometric Imaging Receiver (SPIRE), with the Canadian contribution to SPIRE directed by the University of Lethbridge Astronomical Instrumentation Group (AIG).

This lecture introduces the Far-Infrared Universe, and describes the creation, validation, and exploration of the SPIRE Spectral Feature Finder (FF) Catalogue, a spectral line catalogue based on an automated custom spectral line fitting algorithm, with significant contribution by members of the UL AIG in its creation. The SPIRE FF results are based on the spectral line fitting of ALL of the Herschel/SPIRE spectrometer observation data, and thus present a very user-friendly access point to explore the SPIRE spectrometer data.

EVERYONE IS WELCOME