PHYSICS AND ASTRONOMY

SEMINAR

Prof. Patrick Hall

York University

"Quasar Outflows: The Fast and the Furious"

Abstract

A black hole is inferred to exist at the centre of every massive galaxy, including our own. We cannot see such a black hole directly, but we can see light from gas orbiting a black hole in a disk; we call such light a quasar. In a substantial fraction of quasars, we also see absorption from gas streaming away from the black holes in winds lifted from the surface of these disks. I will present recent work on what the variability of these outflows can tell us about the properties of outflows and accretion disks. Notable discoveries include the fastest outflow ever detected at ultraviolet wavelengths (v=0.2c), several cases where strong absorption completely disappeared in just a few years, and a small population of quasars which appear to show optically thick gas plummeting toward their black holes.

Friday, January 26, 2018
11:30 a.m.
ECS Building
Room 130