



**Old Dominion University  
Department of Physics**

**Colloquium  
Tuesday, August 25, 2015**

**"Molecular Astrophysics: Cool stars, brown dwarfs and  
exoplanets"**

**Dr. Peter Bernath  
Old Dominion University**

The spectral energy distributions of “cool” astronomical objects such as low mass stars, brown dwarfs and exoplanets are dominated by molecular absorption features. Of particular interest are methane, water, ammonia and metal hydrides at high temperatures. An overview of this area of molecular astronomy will be presented from a spectroscopic perspective. The talk will concentrate on emission and absorption measurements of hot molecules by Fourier transform spectroscopy related to exoplanets.

Presentation: **OCNPS 200 @ 3:00 pm**  
Refreshments: **OCNPS Atrium @ 2:30 pm**

**All interested persons are cordially invited to attend.**