

# Colloquium Notice

## Alexandre David-Uraz

**CRESST II Assistant Research Scientist; Department of Physics and Astronomy, Howard University; NASA Goddard Space Flight Center, Astrophysics Science Division**

*Using rotational modulation signals to diagnose structures on various scales in the winds of massive stars*

Among the overall stellar population, stars with masses several times larger than that of the Sun (roughly 8 times and above) are rare but play a significant role in shaping their environments. They are the progenitors of spectacular supernova explosions and exotic compact objects, namely neutron stars and black holes. One of the most important physical processes characterizing these stars and shaping their evolution is their strong, radiatively-driven winds. In this talk, I will briefly introduce the winds of massive stars and their main characteristics. Then, I will discuss the various structures that arise within the wind and their observable consequences. Finally I will focus on the interaction between magnetic fields and winds in a subset of these stars, and how multi-wavelength observations can help us decode the mysteries of these objects.

*Note: non-Zoom event*

Monday  
**April 4, 2022**  
Starts at 12:15 PM  
**SB C201**