

# Colloquium Notice

**Johanna M. Vos**

**American Museum of Natural History**

*Exometeorology: Weather on Worlds Beyond our Own*

Major technological advances have enabled the discovery of a small number of directly imaged exoplanets. These imaged worlds can be studied in far greater detail than exoplanets detected by indirect methods such as transit and radial velocity techniques. Next-generation telescopes such as the recently launched James Webb Space Telescope and the upcoming 30-m telescopes (e.g. ELT, TMT, GMT) will enable direct exoplanet characterization. Based on the handful of exoplanets studied to date, it is clear that the interpretation of future observational data hinges on a thorough understanding of their atmospheric processes. In this talk I will discuss our past, current and future efforts to investigate the atmospheres of extrasolar worlds. In particular, I will discuss how a combination of observational and computational techniques will reveal three critical atmospheric processes: clouds, winds and aurorae. Each of these processes are well-studied in our own Solar System and we can now begin to study them on worlds beyond our own.

*Note: non-Zoom event*

Wednesday  
**April 6, 2022**  
Starts at 12:15 PM  
**SB C201**