BOSTON UNIVERSITY

Boston University College of Arts & Sciences
Institute for Astrophysical Research

2020—2021 ASTROPHYSICS SEMINAR SERIES

Exploring Extreme Exoplanets in the Era of TESS and JWST

The Transiting Exoplanet Survey Satellite (TESS) launched in 2018 and has been photometrically surveying the sky to find transiting exoplanets around bright, nearby stars. Thanks to the nature of its observing strategy, TESS has also revisited many previously discovered exoplanets and provided very-high-precision transit photometry. The James Webb Space Telescope (JWST), which is slated to launch in 2021, will be the next premier space-based facility for near- and mid-infrared astronomy over 0.6-28.5 microns. The 6.5-meter telescope will be equipped with four state-of-the-art instruments that include capabilities for imaging, spectroscopy, and coronagraphy. JWST will in particular offer unprecedented sensitivity enabling detailed studies of transiting exoplanets and their atmospheres. In this talk, I will present studies of extreme giant exoplanets that were discovered by ground-based surveys years ago and have been recently observed by TESS. I will discuss what new information TESS has brought to light regarding the properties of these exoplanets. I will also provide an update on the status of JWST and discuss the opportunities that exist for JWST to study the atmospheres of these extreme exoplanets.

Monday, December 7th

3:30 - 4:30 p.m.

See website for Zoom details

Knicole Colón

NASA Goddard