NASA-NSF Ground-based Support for Exoplanet Discovery and Characterization

Splinter Session at the AAS 241 meeting

Date: Monday, January 9th, 2023
Time: 9:00 AM - 11:30 AM PST
Location: Hybrid; Seattle Convention Center - Room 304; https://jpl.webex.com/meet/ardila

This splinter session will focus on ground-based, community-led activities seeking to discover and characterize exoplanets, sponsored by both NASA and the NSF. The objective of this session is to present a breadth of results and possibilities to encourage community use of resources made available via the NASA & NSF Exoplanet Observational Research (NN-EXPLORE) program, NASA open time, and NSF instrument funding.

We will present updates and recent results from several cutting-edge Radial Velocity (RV) spectrometers (NEID at WIYN; MAROON-X at Gemini North; and the EXtreme PREcision Spectrometer - EXPRES - at LDT) and report on the status of the Keck Planet Finder (KPF) spectrograph that is currently being commissioned at Keck Observatory. Updates on US access to southern hemisphere RV science via SMARTS/CHIRON and MINERVA-Australis will also be provided.

In addition, this session will discuss recent results from the NESSI, 'Alopeke, and Zorro speckle cameras. These high-resolution speckle imagers have been instrumental in the host-star characterization carried out in advance of spectroscopic follow up.

Finally, the PIs of the ROSES 2020 call on Extreme Precision Radial Velocity (EPRV) Foundational science will present highlights from their results. The studies funded by this call seek to determine whether stellar variability can be understood well enough to mitigate the limitations it places on RV mass measurements – working towards the goal of detecting and measuring masses for temperate Earth-mass exoplanets orbiting Sun-like stars.

Image Credit: NASA/JPL-Caltech

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Agenda		
Time	**Title**	**Speaker**
9:00 am	The NN-EXPLORE Program	David R. Ardila, NASA Exoplanet Program Office
9:08 am	High Resolution Speckle Imaging	Steve Howell, NASA Ames Research Center
Instrument Status and Recent Results		
9:16 am	NEID	Jason Wright, Penn State
9:24 am	MAROON-X	Andreas Seifahrt, University of Chicago
9:32 am	EXPRES	Joe Llama, Lowell Observatory
9:40 am	SMARTS/Chiron	Todd Henry, Georgia State University
9:48 am	MINERVA-Australis	Rob Wittenmyer, University of Southern Queensland
9:56 am	Keck Planet Finder	Samuel Halverson, Jet Propulsion Laboratory
Extreme Precision Radial Velocity		
10:04 am	NASA's EPRV program	Jennifer Burt, Jet Propulsion Laboratory
10:12 - 11:30 am	EPRV Foundational Science Results	Various