NN-EXPLORE is the joint NASA-NSF Exoplanet Observational Research program.

WIYN/NEID and Guest Observing (GO)

The NEID spectrograph is being commissioned on the 3.5-meter WIYN telescope on Kitt Peak, Arizona with opportunities for guest observing on WIYN.

Southern RV Observing Opportunities

Radial velocity observing time in the southern hemisphere is available for US institutions on SMARTS/Chiron, AAT/Veloce and MINERVA-Australis.

NASA-NSF EPRV Initiative

NASA is pursuing a new Initiative in Extreme Precision Radial Velocity (EPRV)

More information: https://exoplanets.nasa.gov/exep/NNExplore/
NEID Status

• NEID Instrument and Port Adapter commissioning delayed by the pandemic, but resumed 2020-11-30.
• Shared-risk science began 2020-12-11.
• Hours of solar data collected daily, soon to be regularly delivered to the NExScI community archive.
• The Operational Readiness Review (ORR) scheduled for 2021-03-30.

More information: https://exoplanets.nasa.gov/exep/NNExplore/
Southern Radial Velocity

NASA has time available on southern hemisphere observatories for US astronomers.

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<tbody>
<tr>
<td>SMARTS/Chiron</td>
<td>392 hrs</td>
<td>407 hrs</td>
<td>80 hours</td>
<td>280 hrs</td>
<td>300 hrs</td>
<td>300 hrs</td>
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<tr>
<td>AAT/Veloce</td>
<td>5 nights</td>
<td>5 nights</td>
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<td>7 nights*</td>
<td>8 nights*</td>
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<td>MINERVA-Australis</td>
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<td>300 hrs</td>
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*Contingent on pipeline

For proposal information: [http://ast.noao.edu/observing/proposal-info](http://ast.noao.edu/observing/proposal-info)
• National Academies Exoplanet Science Strategy:
  "NASA and NSF should establish a strategic initiative in extremely precise radial velocities (EPRVs) to
develop methods and facilities for measuring the masses of temperate terrestrial planets orbiting
Sun-like stars."

• Formed an EPRV working group of international experts.
  - Eight sub-groups (Science, Error Budget, Instrumentation, Stellar Variability, Strategies, Analytics,
    Resource Evaluation and Tellurics)
  - Three face-to-face workshops (St. Louis, New York, Washington)
  - Dozens of teleconferences

• Developed an EPRV Initiative recommended plan and presented it to NASA and
  NSF on 2020-03-24.
  See: https://exoplanets.nasa.gov/internal_resources/1556/
# EPRV Initiative Notional Plan

## Program
- **Key Milestones**
  - EPRV Report 3/23
  - Gateway Review
  - Gateway Review
  - Gateway Review
- **EPRV Workshops**
  - Standing Science Consultant Group

## Observations
- NEID GO
- NEID GTO
- Solar Data
- Key Programs
- Precursor Survey
- EPRV Survey

## Analysis
- Data Challenges
  - Research Coordination Network (RCN)
  - R&A
  - Community-Tested Pipelines
  - Community Data Archive

## Development
- Technology R&D
- Design Next-gen Inst
- Build Next-gen Inst
- Investigate Acquire / Retrofit Telescopes
- Acquire / Access Telescopes

## Other Milestones
- Decadal 2021
- Keck / KPFF Late 2022
- HabEx / LUVOIR PDR 2025
- Earth / LUVOIR Launch 2035
**EPRV Initiative – First Moves**

- **EPRV ROSES Solicitation D.17**
  - 2-year proposals
  - $1.75M available
  - Step-1 proposals submitted; Step-2 proposals due 2021-01-28
    
    https://nspires.nasaprs.com/external/solicitations/summary!init.do?solId={8BEF2D63-6E33-C28A-B68B-8EF929B90D74}&amp;path=open

- **PRV data in the NExScI community archive.**
  - NEID solar data collected daily and released through the NExScI community archive.
  - NEID standard stars to be released starting after ORR (2021-03-30).
  - EXPRES solar data expected in FY2022.

- **EPRV Research Coordination Network (RCN)**
  - To be initiated with the first EPRV solicitation awards (Spring 2021).

- **Following ASTRO2020 release, will be requesting augmented support (over-guideline funding request) from NASA.**