Updates from the NASA Exoplanet Science Institute

Jessie Christiansen
Caltech/IPAC

ExoPAG 33 – January 3rd 2026

NExScI: NASA's ExEP Science Center

- Support the scientific community in their use of NASA missions to explore questions about the formation and evolution of planetary systems
- NExScI is the community-focused science center of NASA's Exoplanet Exoploration Program
- Located on Caltech campus as part of IPAC

NExScI leadership changes

Chas Beichman has stepped down as NExScI Executive Director; David Ciardi is serving as Acting Executive Director

Aurora Kesseli and Meca Lynn are the new NASA Exoplanet Archive Deputy Science Lead and Deputy Engineering Lead

Tiffany Meshkat is now the Keck Observatory Archive Project Scientist

2025 Sagan Summer Workshop

Silver Jubilee – Exoplanet Demographics

- July 21-25, 2025
- How techniques from RV and transits to imaging, astrometry, and microlensing contribute to our understanding of exoplanet demographics
- Fully hybrid: 1611 total registrations (1313 remote and 298 in person)
- Video and PDFs of the talks available online
- Hands-on session material available online

https://nexsci.caltech.edu/workshop/2025/

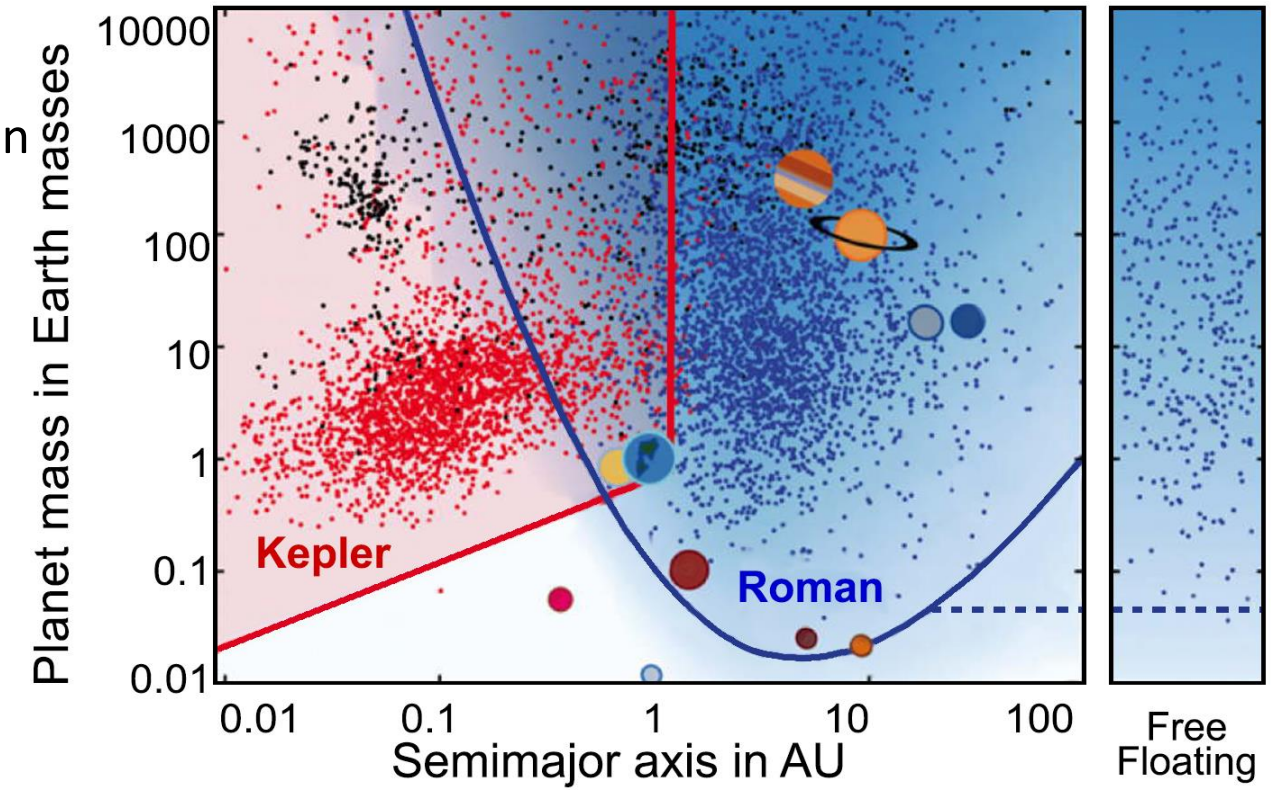
2026 Sagan Summer Workshop

Exoplanets with Roman Surveys: Microlensing and Transits – July 20-24, 2026

Important dates:

- **February 2:** Registration and travel support application sites available (no registration fees!)
- **March 5:** Deadline for travel support applications and recommendation letters
- **April 6:** Travel support decisions announced via email
- **May 20:** Deadline for NASA and JPL employees to forecast their attendance
- **Late June:** Deadline for Pasadena Hotel room reservations

https://nexsci.caltech.edu/workshop/2026/



Community Observing Resources

Community access to observing resources for exoplanets and more

Keck

- Supports strategic programs from all of astrophysics, solar system
- All instruments, both telescopes

NN-Explore

- WIYN
  - NEID (PRV and daily solar data); https://neid.ipac.caltech.edu/
  - NESSI (HRI); WHIRC (NIR imaging/time series); HYRDRA (MOS)
- Gemini-North/South
  - ‘Alopeke (North) and Zorro (South)
  - High resolution imaging speckle cameras

https://nexsci.caltech.edu/tools/obs_res.shtml

NASA Keck Time

2026B Proposals Due to NExScI March 12

- Supports all astrophysics and planetary science
- Keck Strategic Mission Support and HWO technology/ precursor science proposals also solicited
- DAPR-compliant evaluations
- https://nexsci.caltech.edu/missions/KSA/

Joint JWST-NASA Keck Proposal Opportunity in Cycle 5

- Up to 10-15 nights could be allocated by JWST TAC (2026B and 2027A)
- Data from both observatories are required to meet the science goals
- https://nexsci.caltech.edu/missions/KeckSolicitation/jwst-keck.shtml

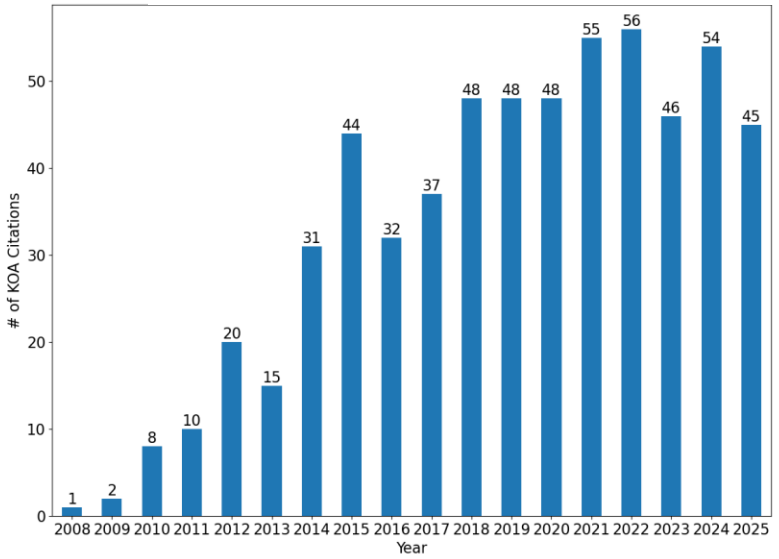
Keck Observatory Archive

- KOA ingests raw data from all Observatory instruments, quick look data from 5 instruments, science-ready data from 8 instruments
  - Pipeline-processed data from KPF and NIRES released by instrument teams
- Contributed data set Development of the WFIRST Exoplanet Mass Measurement Method (PI. D. Bennett)
- **Peer reviewed papers citing KOA represent ~20% of the Observatory's science output**
- DEIMOS slit mask tables (when available) are included in the Raw overview page and included with the Level 0 packaging
- Beta release of the Data Discovery Service and an associated Jupyter notebook, which offer queries of the entire archive in seconds
- Completed automation of user accounts at WMKO at and NExScI
- Preparing for ingestion of NIRC2 polarimetry data and SCALES data
- 115 NASA PIs have been notified about possible extensions since April 2, 2025; 4 total extensions approved

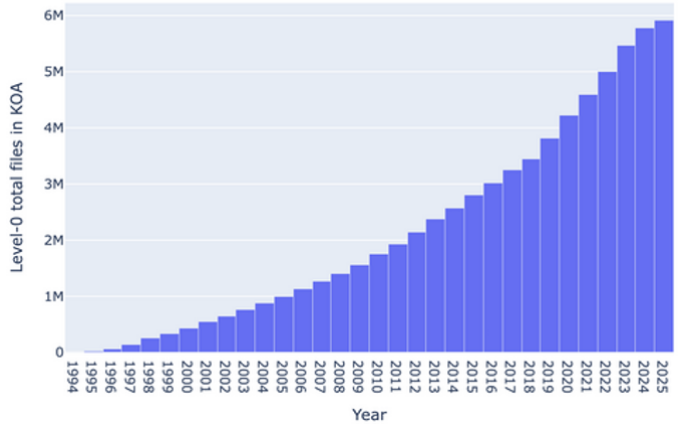
https://koa.ipac.caltech.edu

KOA is a collaboration between NExScI and the W. M. Keck Observatory

Citation rate for KOA (2008-2025)



KOA all instruments Level-0 total files growth 1994–2025



NEID Archive; LOST solar data

The NEID Archive contains L0-L2 data, including:

~25,000 stellar RVs

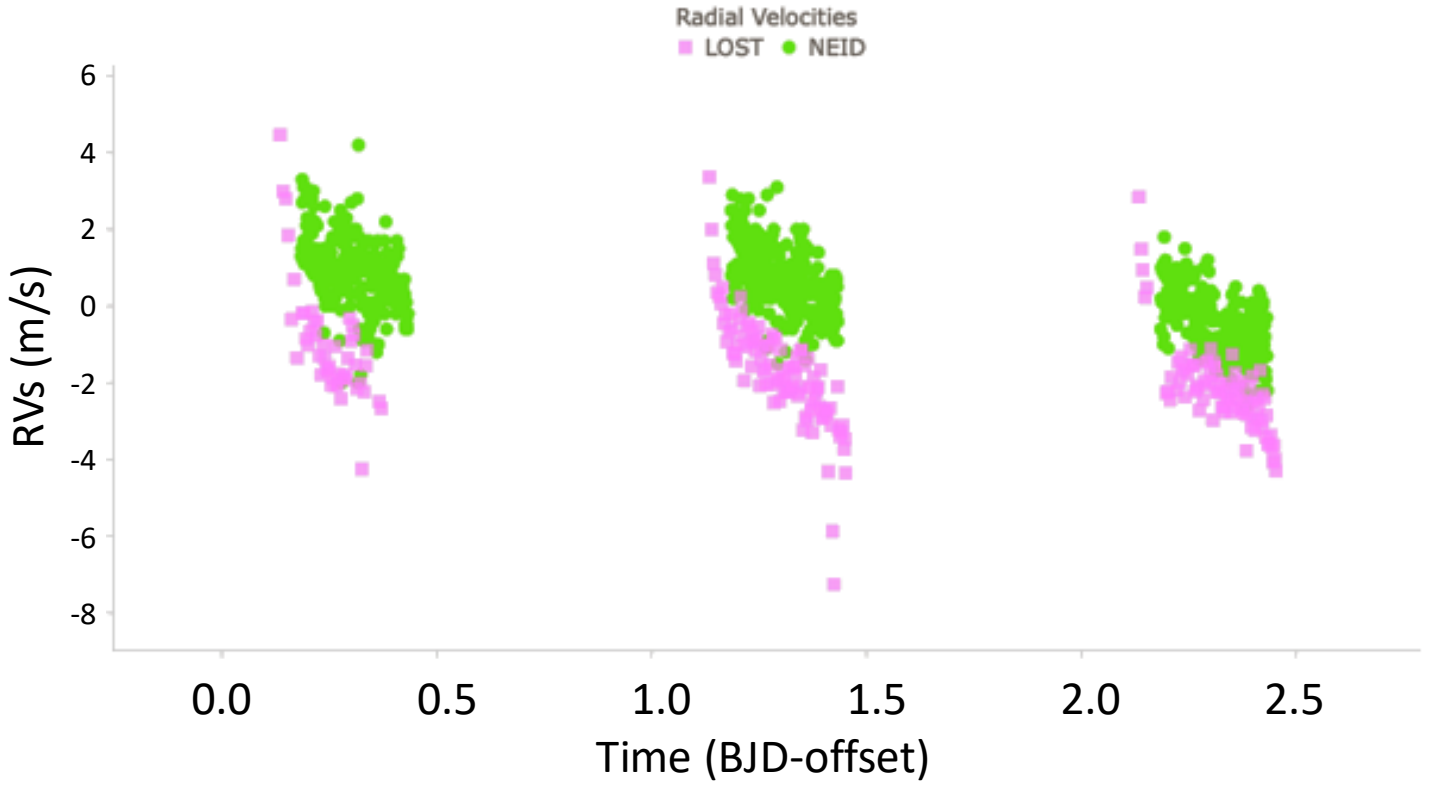
~286,000 solar RVs

https://neid.ipac.caltech.edu/search.php

Coming soon!

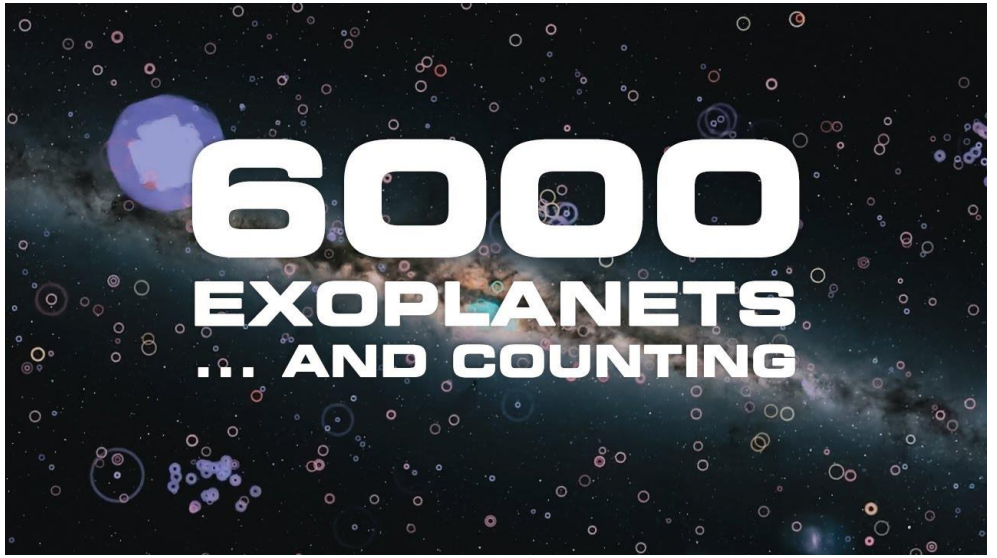
Lowell Observatory Solar Telescope (solar feed to the EXPRES spectrograph on the Lowell Discovery Telescope) data

6500 solar RVs in hand, interface to be released soon



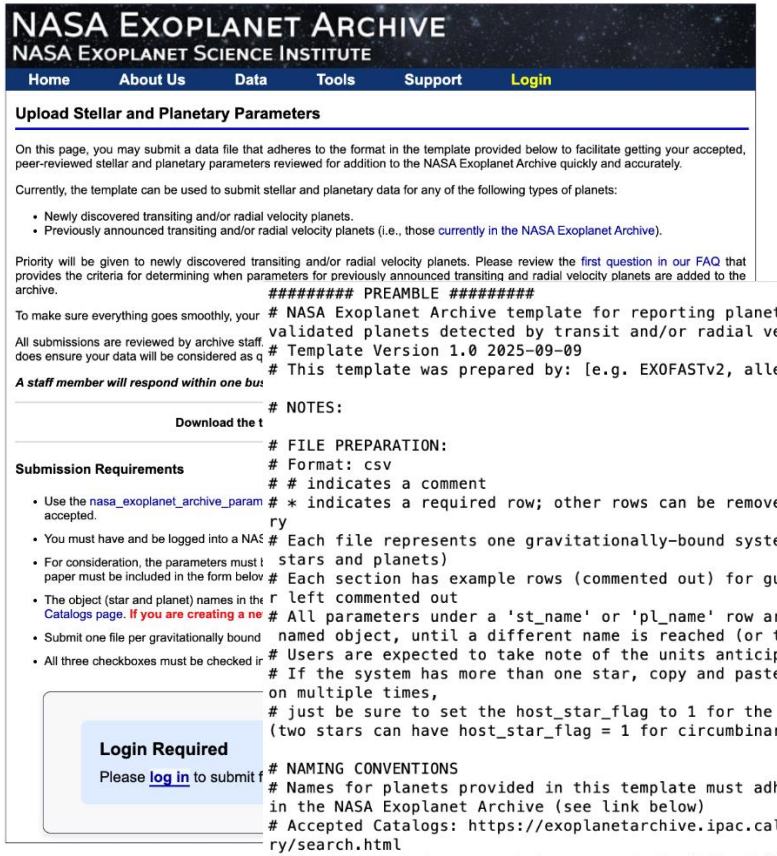
NASA Exoplanet Archive

- Passed 6,000 confirmed exoplanets and 1,000 atmospheric spectra!
- New contributed datasets: ROME/REA Microlensing Survey of 8 million light curves from LCO, and the FDL INARA dataset of 3 million synthetic spectra of rocky planets
- Updated overview pages: expanded bibliographies, discovery data, and interactive functionality
- Preparing for Pandora! Launching early January, the NEA is the mission archive, and will host the Level 1-3 data products



Published Data Upload service

- NASA Exoplanet Archive now provides templates for users to upload published, peer-reviewed stellar and planet parameters to the archive for review
- Goal of improving accuracy and efficiency of ingesting data into the archive
- Support from AAS Journals for providing template/recommendations for use by authors
- Priority will be given to parameters for new planets; updated parameters for previous planets assessed case by case



ExoFOP

ExoFOP provides the exoplanet community with a venue for coordinating and sharing follow-up and precursor data for exoplanets, their host stars, and stars that might eventually be targets for future planet searches

- Over one million files uploaded! (1,054,793!)
- Pandora prime mission target list now added (alongside previous HWO and Ariel lists)
- Gaia DR3 IDs added to all targets
- New functionality allows initiation/update of planet candidates from any project, not just Kepler/K2/TESS