Exoplanet Imaging

Selection of candidates

Create a TSX star catalog of potential exoplanets using the Swarthmore exoplanet finder website: <https://astro.swarthmore.edu/transits/transits.cgi>.

Set up the search criteria:

1. Target List: NASA Exoplanet Archive
2. Observatory: Closest on dropdown list (Island of Hawaii => Keck)
3. Date Window: 3 days
4. Constraints:
   1. Elevation: 30 in/30 out
   2. Hour Angle: Default
   3. Out-of-Transit baseline: Default
   4. Space Observing: N/A
   5. Depth: 20 parts per thousand
   6. V magnitude: 14
   7. Name: N/A
   8. The rest: default

Review and note output for potential exo targets

Creation of TSX Catalog Database

Using TSXToolKit Transit Search application, run ExoPlanet Server for Candidate targets. Save to Clipboard.

In TSX, select Edit -> Paste Photo -> create database

TSXToolKit VariScan

Create ExoPlanet target set.

Open new target list

Add exo targets by name

Configure VariScan for target run

Set Images per Sample and Minimum Time Between Images to keep shooting this target through the occultation period.