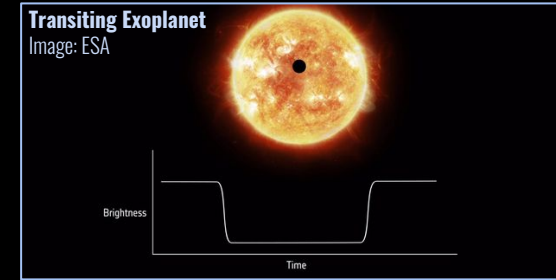
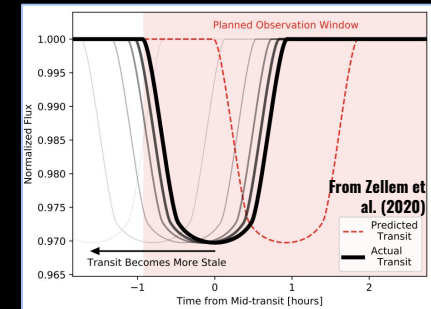


Small Citizen Science Telescopes for Exoplanet Follow-up

- ★ **Exoplanet:** planet orbiting star other than our own Sun
- ★ NASA's *Transiting Exoplanet Survey Satellite (TESS)*: next stage in exoplanet research will find 1,000s of potentially habitable worlds
- ★ However, TESS only observes many exoplanets for ~27 days
- ★ No follow-up: time of expected planet transit of star (i.e. mid-transit time, ephemerides) will become “stale” or imprecise over time
- ★ Future exoplanet survey missions to characterize planetary atmospheres (e.g. JWST, ARIEL) need “fresh” times to observe
- ★ **NASA JPL Exoplanet Watch (EW)**: developed to increase effectiveness for these future pro observations by decreasing the uncertainty of predicted transit times **through citizen scientist observations**
- ★ Joining EW is new easy-to-use robotic consumer telescope, the [Unistellar eVscope](#) (pictured right), which could have >10,000 connected telescopes by mid-2022



Zellem et al (2020): expected time for an exoplanet to transit star is unstable over time, citizen scientists can help!



Planned observations can be ruined by an incorrect mid-transit times. Citizen scientists with small telescopes can prevent this!



Unistellar has partnered with the SETI Institute to build an exoplanet citizen science network. See [PR1](#) and [PR2](#).



→ [Please visit NASA JPL's Exoplanet Watch to learn more!](#)

→ [Based on paper by EW Zellem et al. \(2020\), Utilizing Small Telescopes...](#)