AU Mic

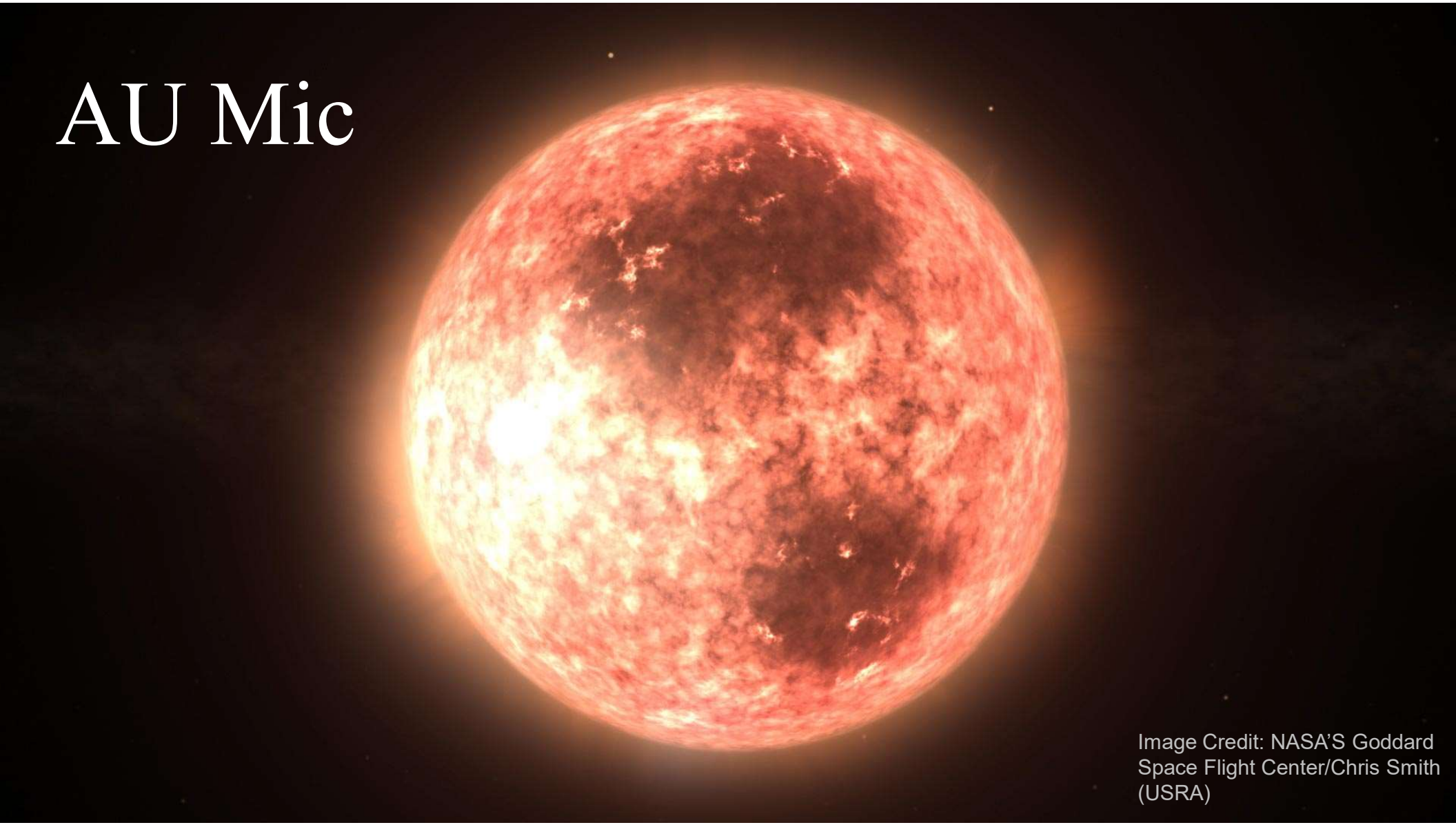
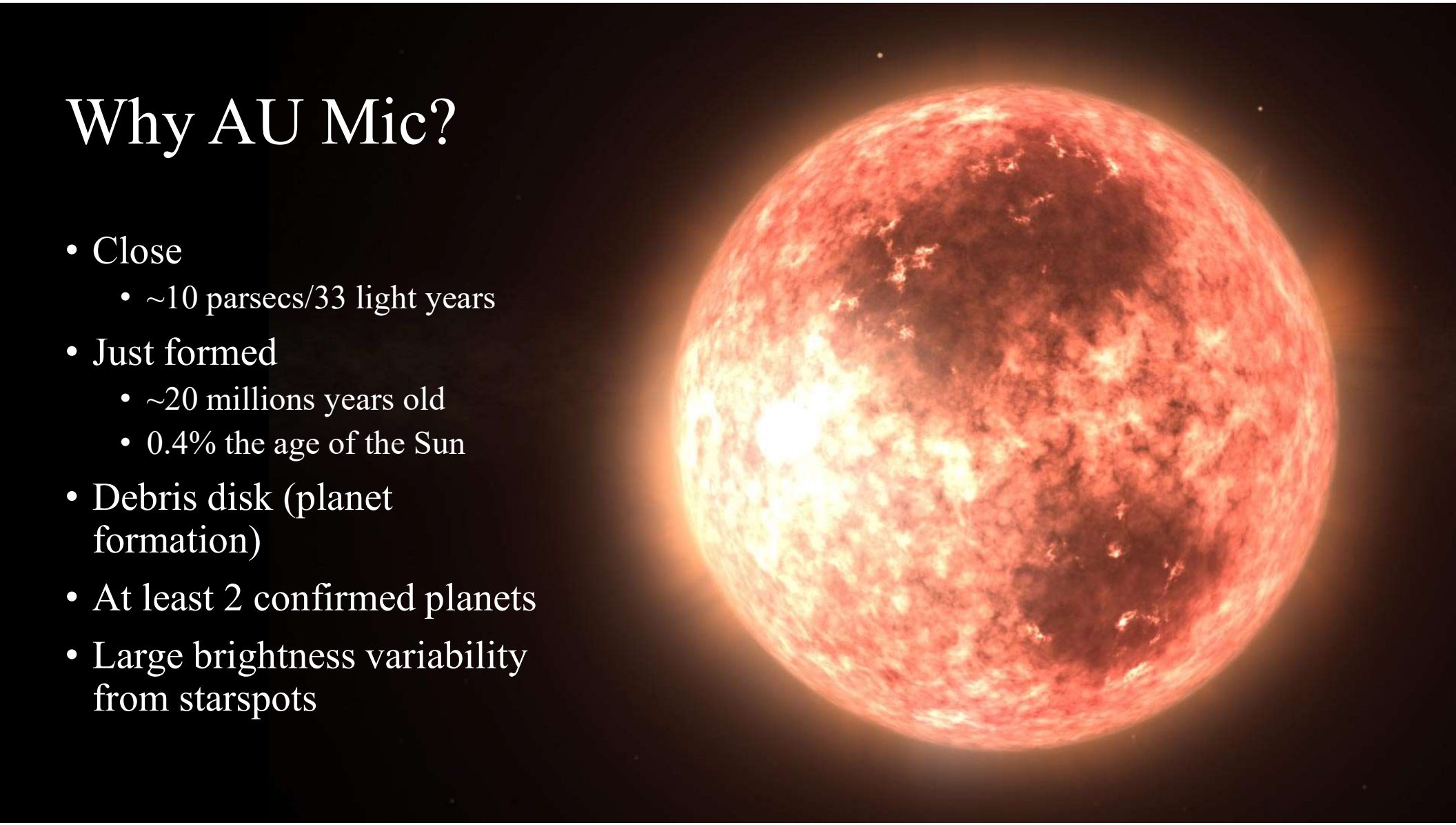


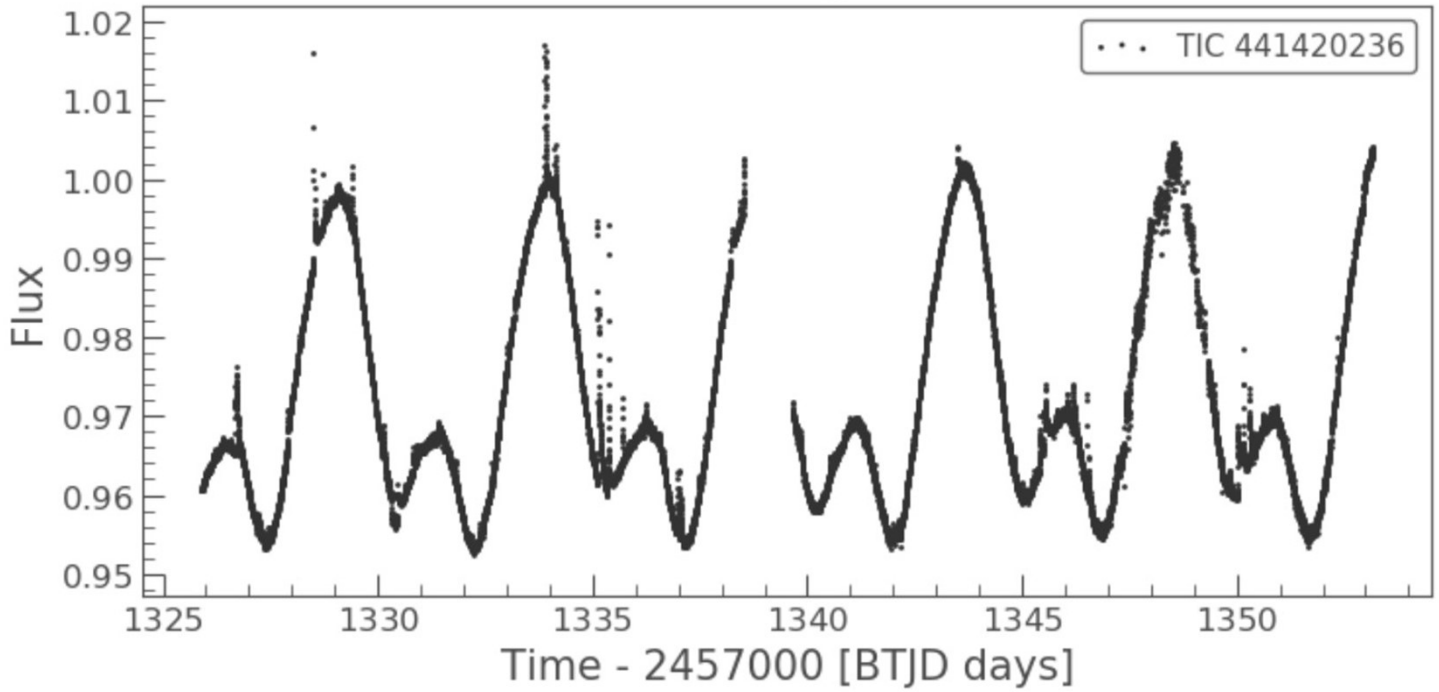
Image Credit: NASA'S Goddard Space Flight Center/Chris Smith (USRA)

Why AU Mic?

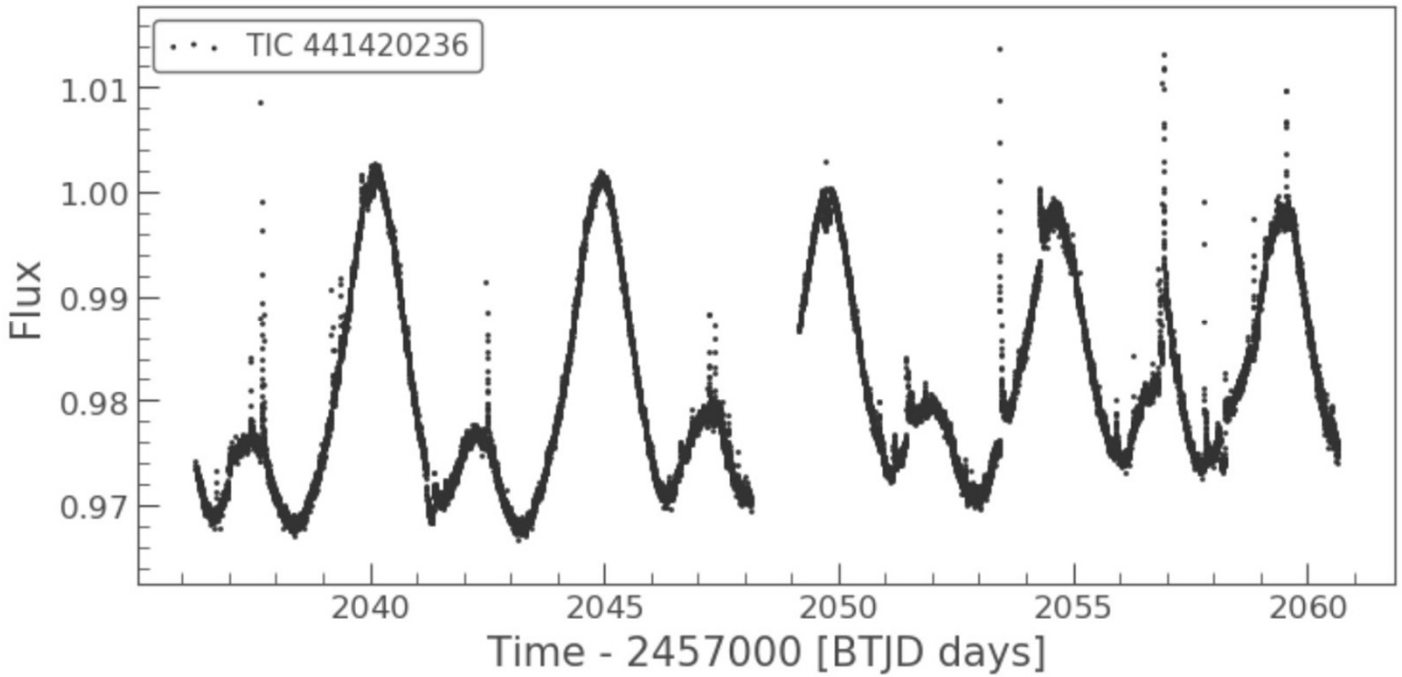
- Close
  - ~10 parsecs/33 light years
- Just formed
  - ~20 millions years old
  - 0.4% the age of the Sun
- Debris disk (planet formation)
- At least 2 confirmed planets
- Large brightness variability from starspots



AU Mic 2018 Light Curve



AU Mic 2020 Light Curve



Studying Starspots With Transits (WASP-19 b)

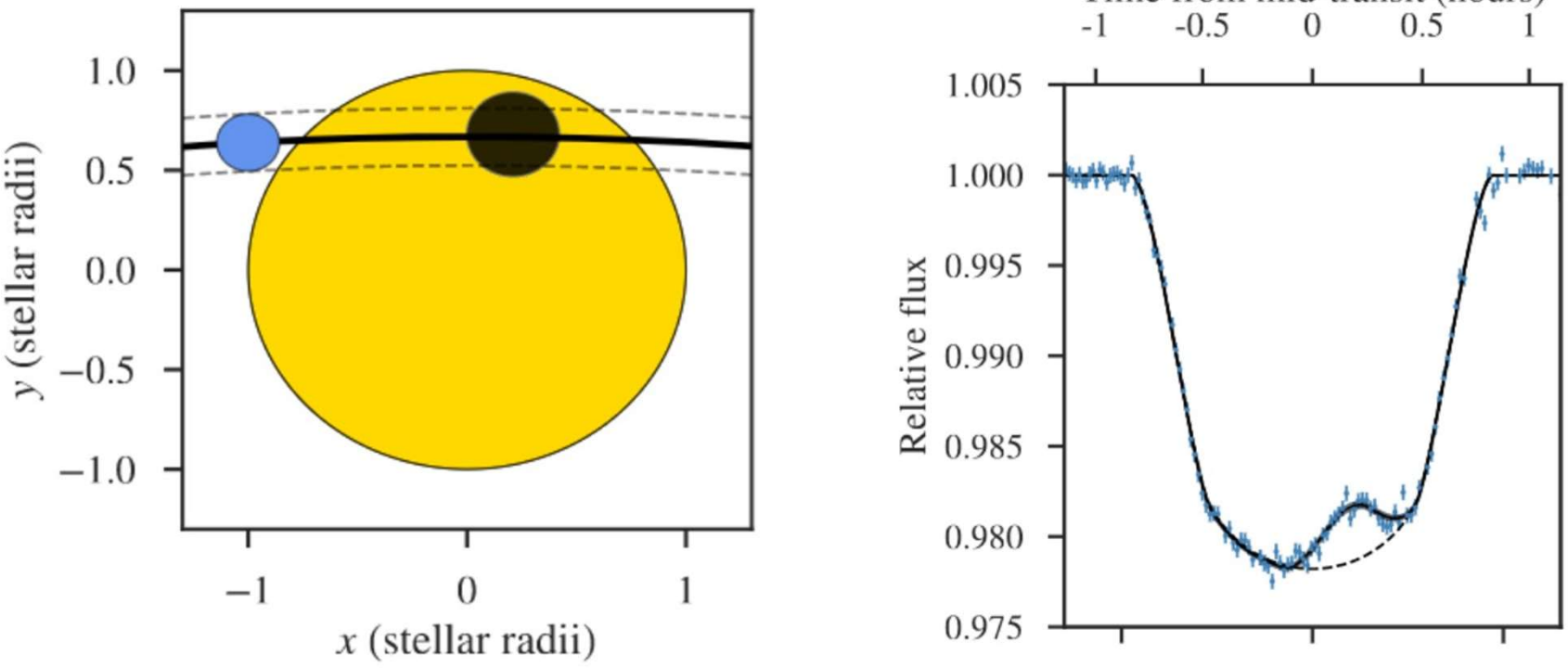
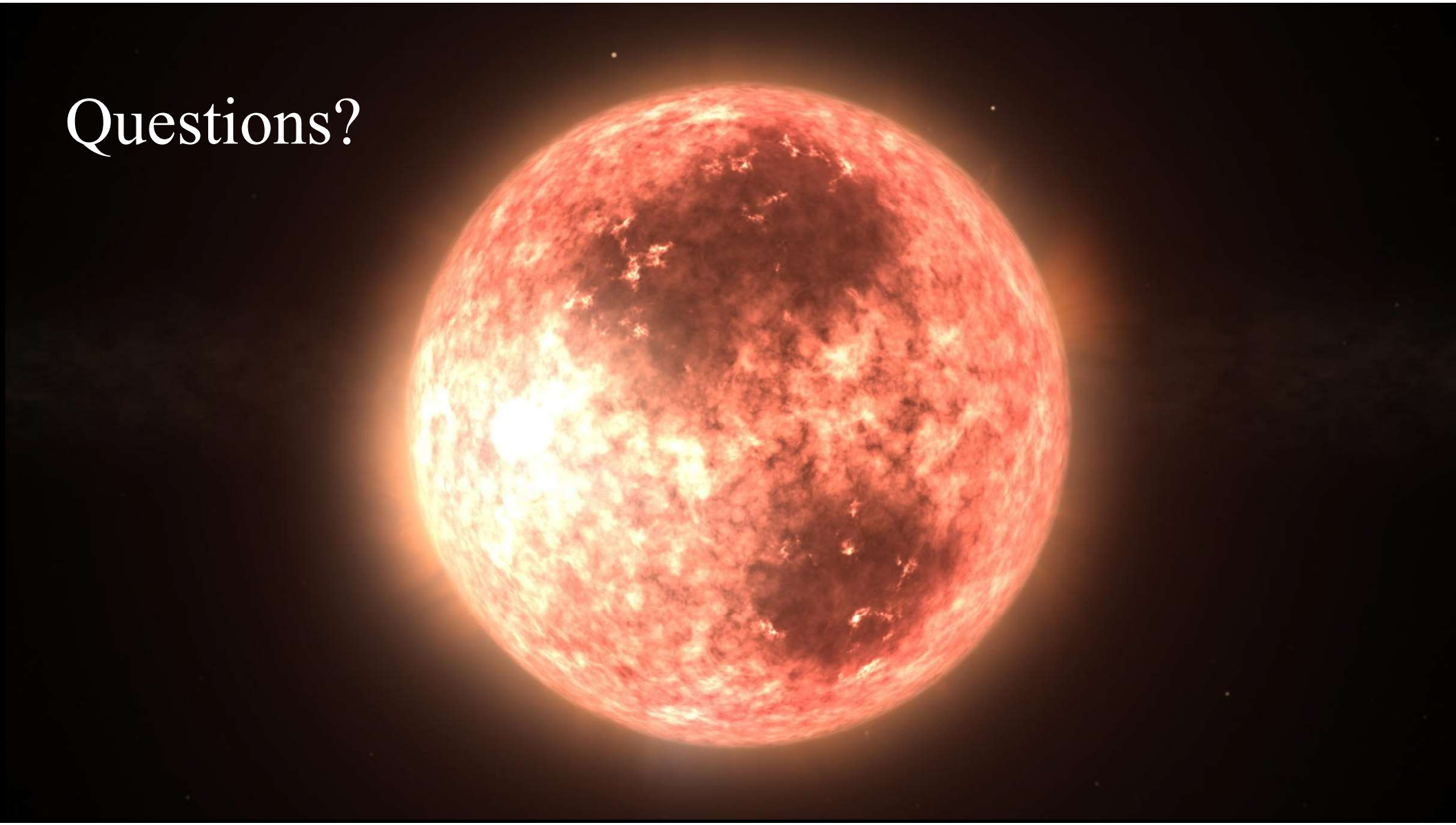


Image Credit: Espinoza et al. 2018

Questions?



Abstract

Observing variability in the lightcurve of a star during a planetary transit removes degeneracies in determining starspot distribution. AU Mic is a nearby very young M dwarf star with at least two transiting planets and large flux variations due to starspots. We will study and characterize the distribution and size of those starspots on AU Mic via in-transit and out-of-transit starspot modeling.