



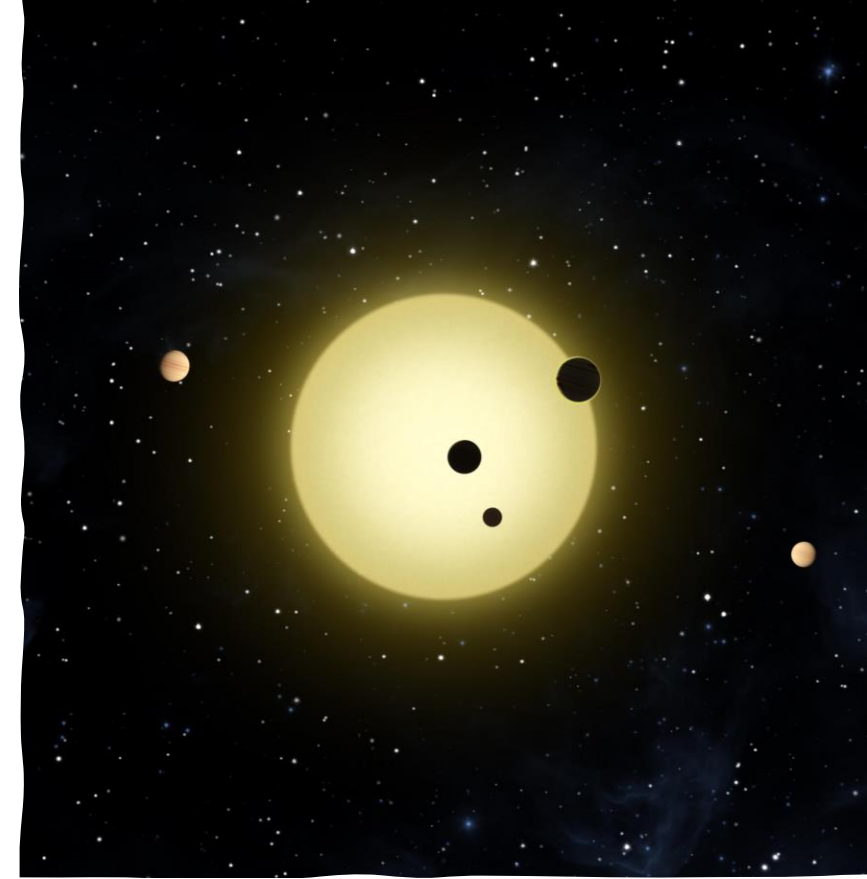
Exoplanet Detection: The Transit Method

Ben Walker

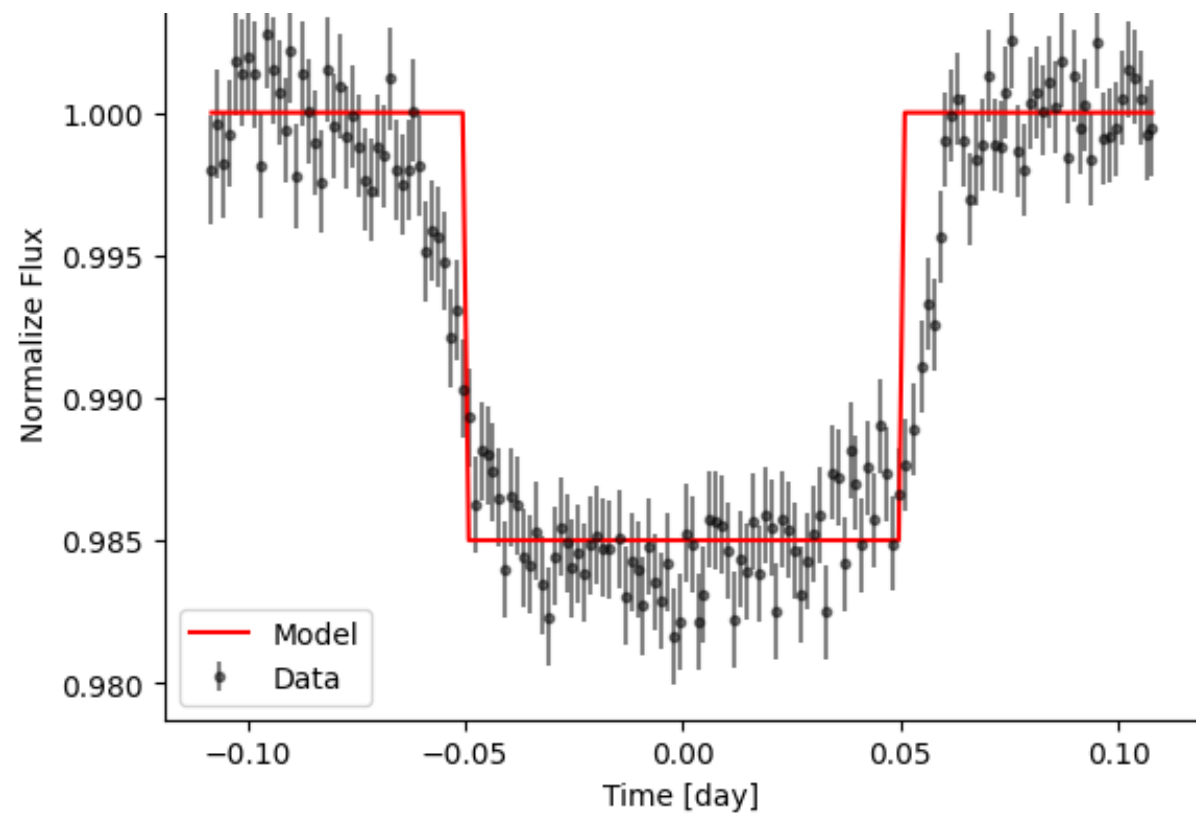
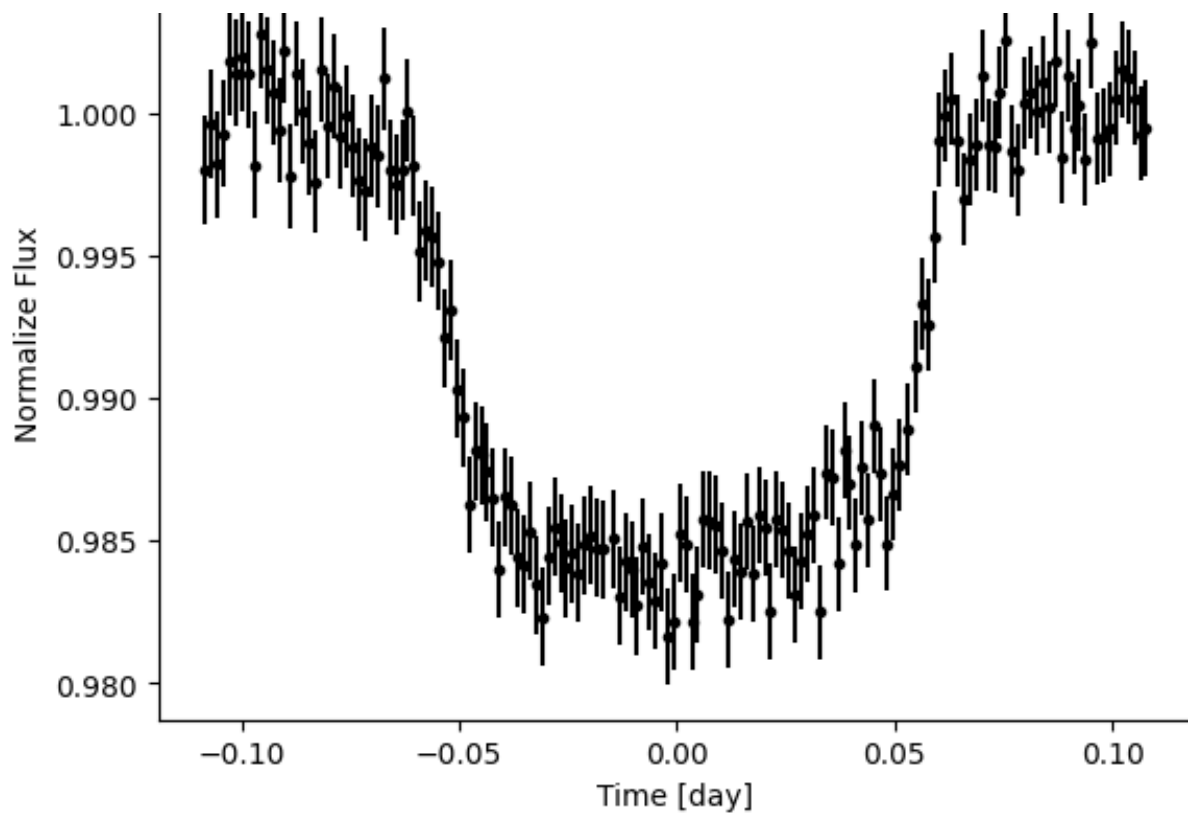
ASTRO 1221

The Transit Method

- Used to detect exoplanets by observing decreases in the brightness of a star
- These dips in brightness, or "transits", occur when a planet passes by the star
- Can calculate the frequency, depth, and duration of these transits
- Used to infer the size, orbit, and distance of the exoplanet



Time vs Flux Plot



Why is this useful?



The discovery of exoplanets shows the diversity of planetary systems outside of the solar system



Certain exoplanets are targets for the search of extraterrestrial life



Discovering exoplanets has driven the need for further technological advancements

References

<http://var2.astro.cz/EN/tresca/transit-detail.php?id=1535045428>