Detection and characterization of TESS warm Jupiters to shed light on the nature of their origins channels.

INTRO
- Warm Jupiters (WJs) - giant planet with 10-100 day orbital periods
- Different origins channels argued
  - High-eccentricity tidal migration
  - In-situ formation
  - Disk migration
- A large sample of WJs required to test these origins channels
- Fortunately, TESS has the capacity to discover 1000+ WJs in FFI with 100+ in CVZ!

APPROACH
1. Discover and catalog WJs in FFI
2. Fit light curves and determine ephemerides
   - The “photoeccentric” effect constrains WJs’ eccentricities
   - TTVs and TDVs indicate WJs with companions
3. Prioritized lists of WJs for short cadence and ground-based follow-up

PRELIMINARY RESULTS
- TOI-172b consistent with high-ecc migration
- TOI-216b, c consistent with disk migration

REFERENCES

This work was supported by NASA XRP NNX16AB50G and NASA TESS GO 80NSSC18K1695. Poster design motivated by #betterposter @mikemorrison