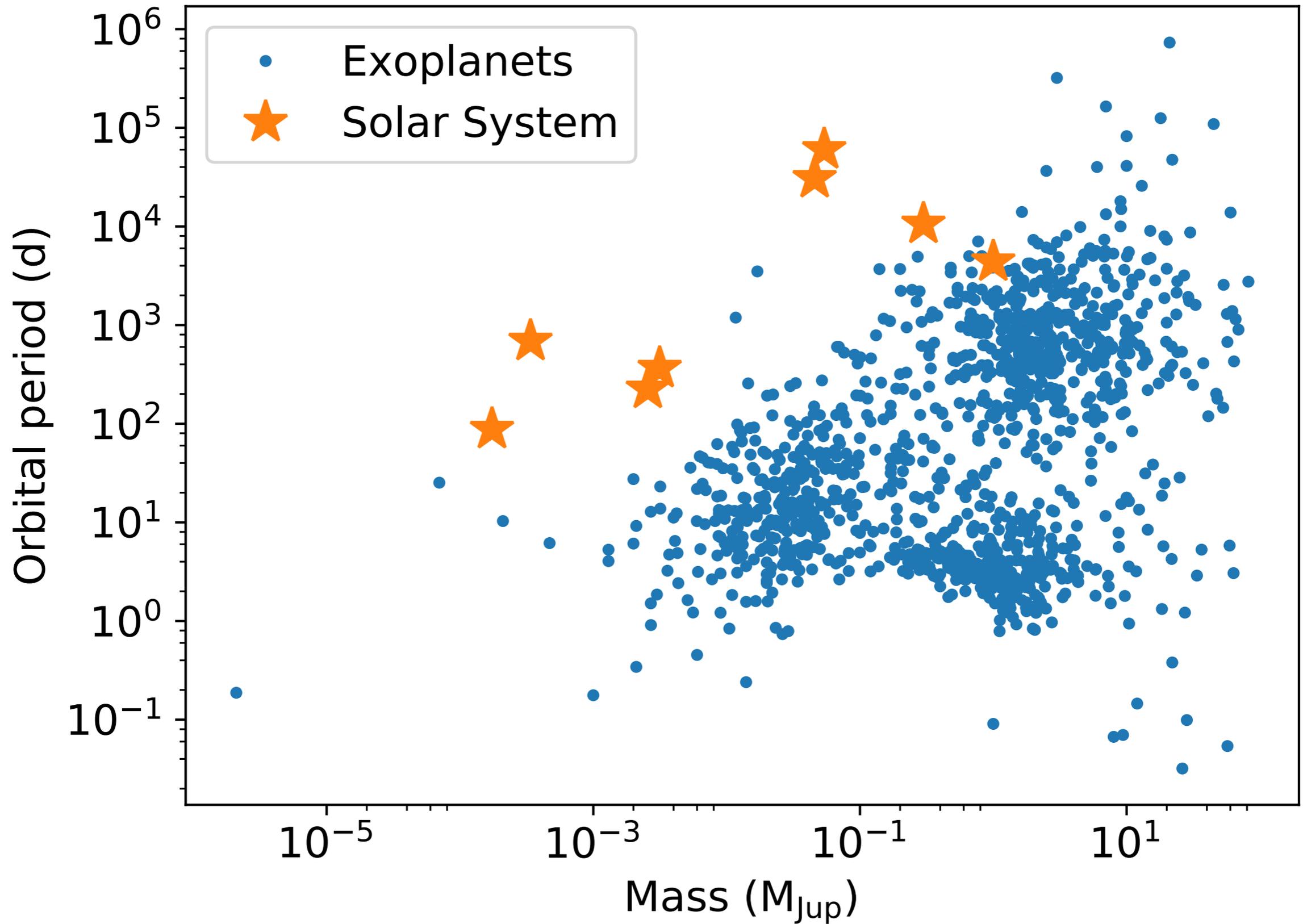


Stars with a spin: old but still kicking

Leonardo A. dos Santos

Exoplanets are **weird**



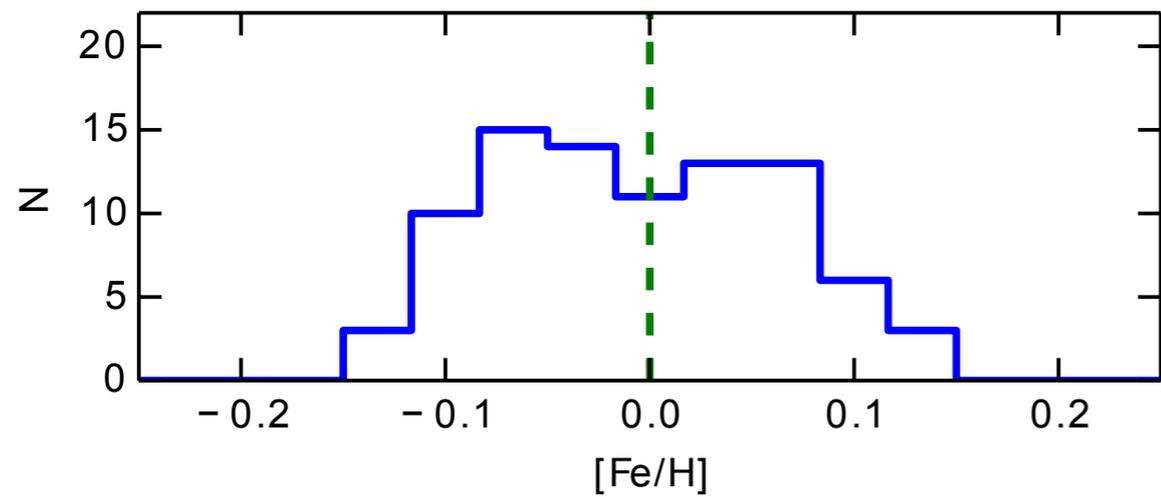
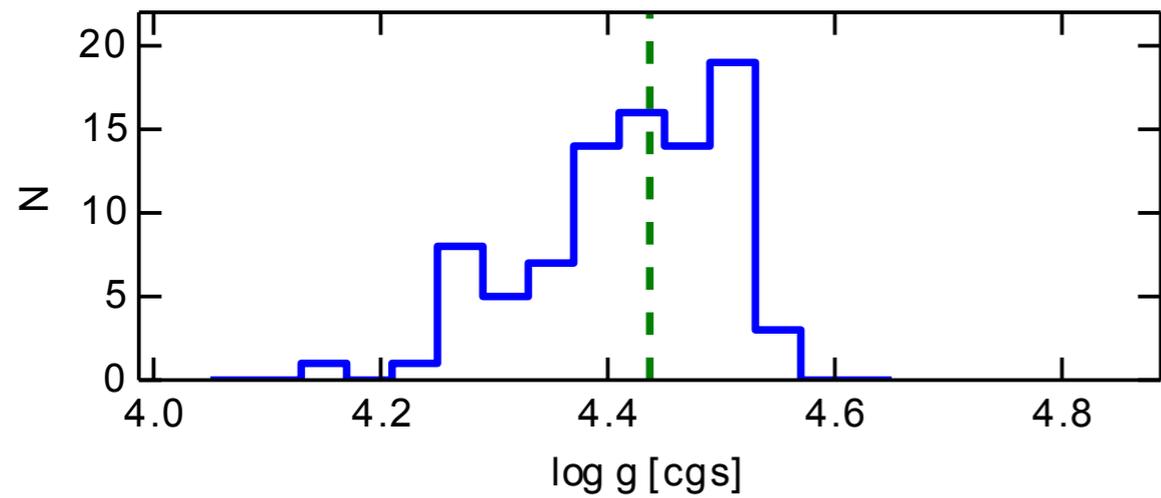
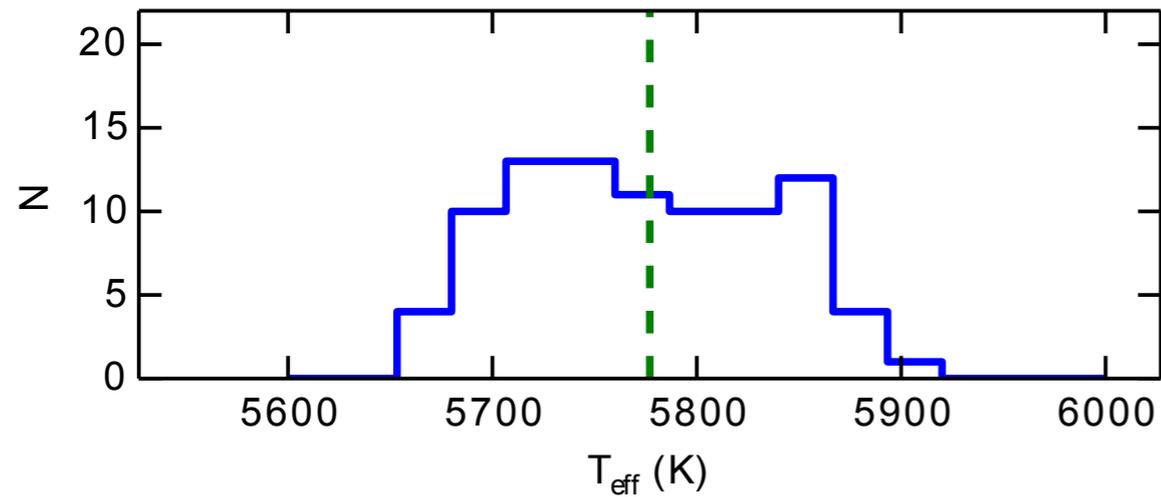
As of April 24th, 2017. Source of data: exoplanets.eu portal

Is the Solar System unique?

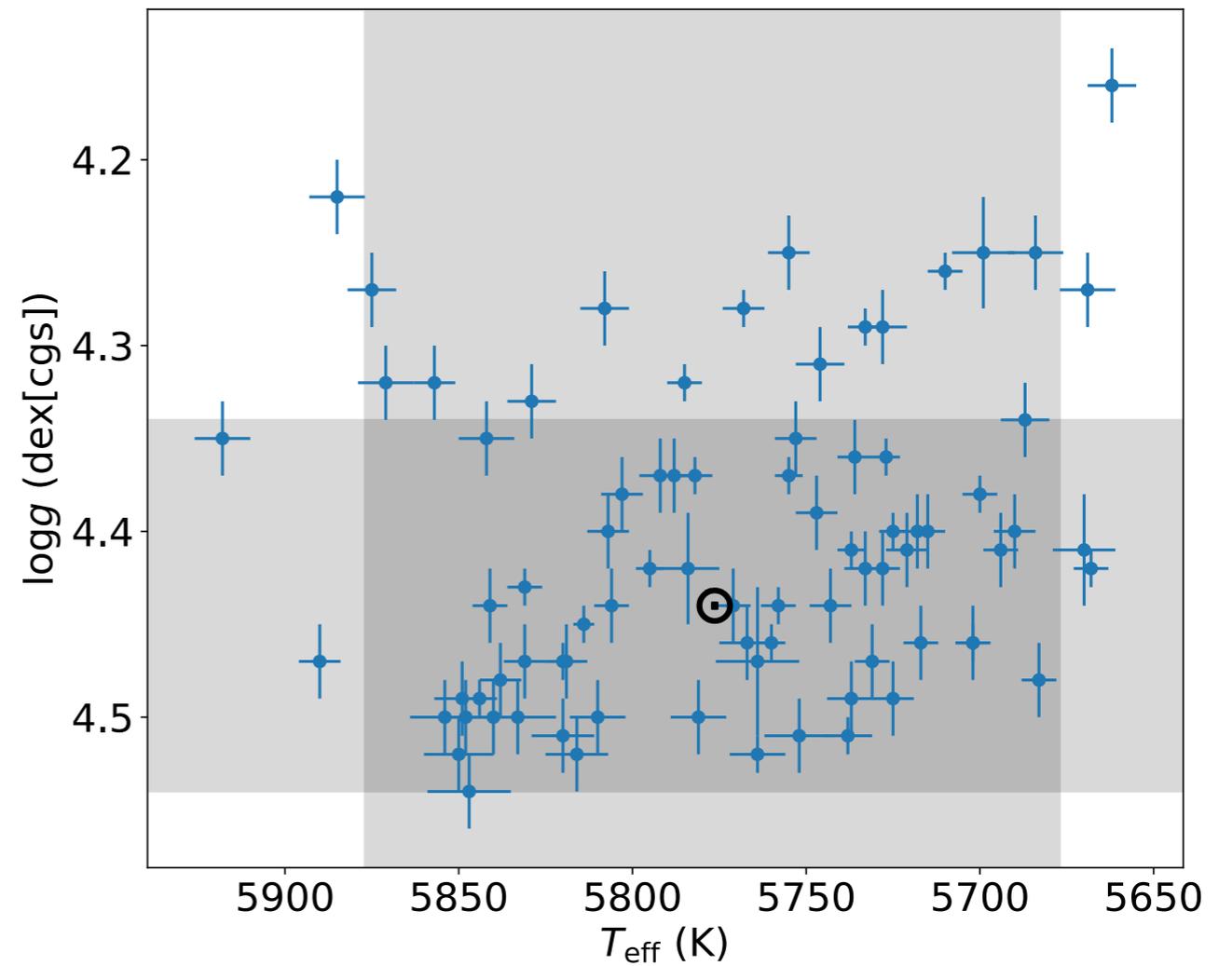
Is there something different in the Sun when compared to similar stars?

I am particularly interested in finding if the Sun is a typical rotator.

Stellar parameters derived from **MIKE spectra**



Ramírez+ 2014 (A&A 572)

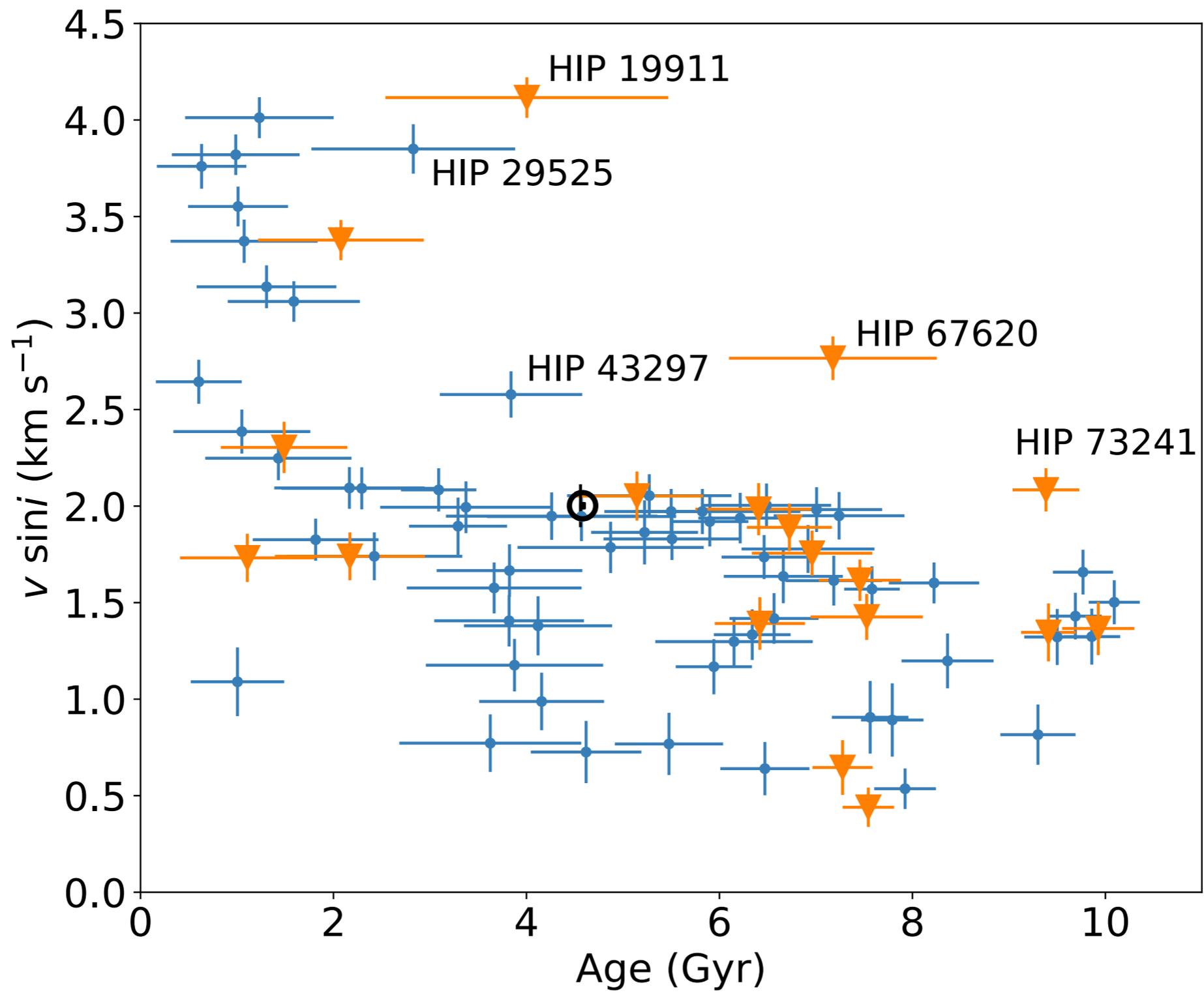


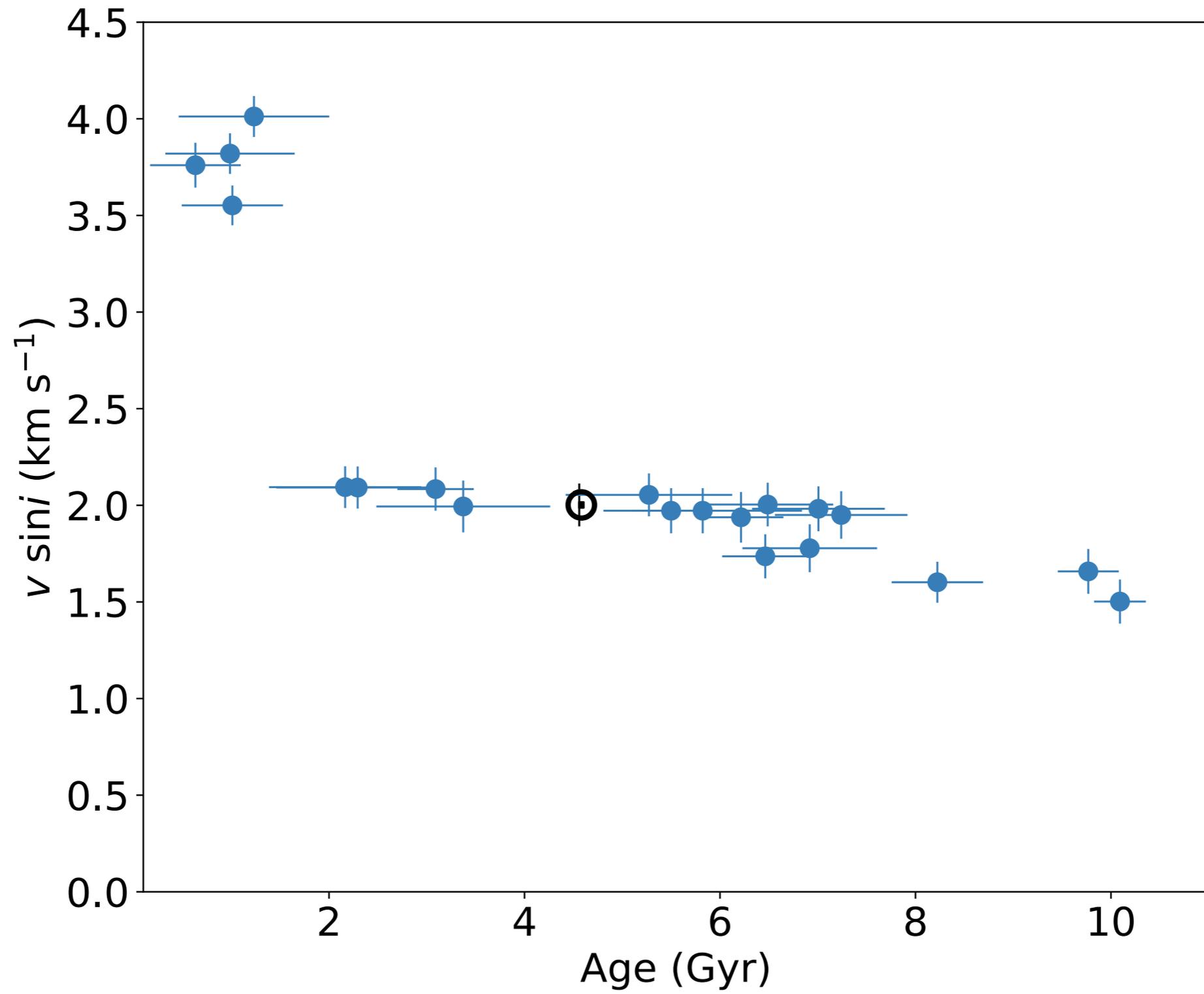
Stellar parameters:
MIKE@Magellan 6.5 m telescope

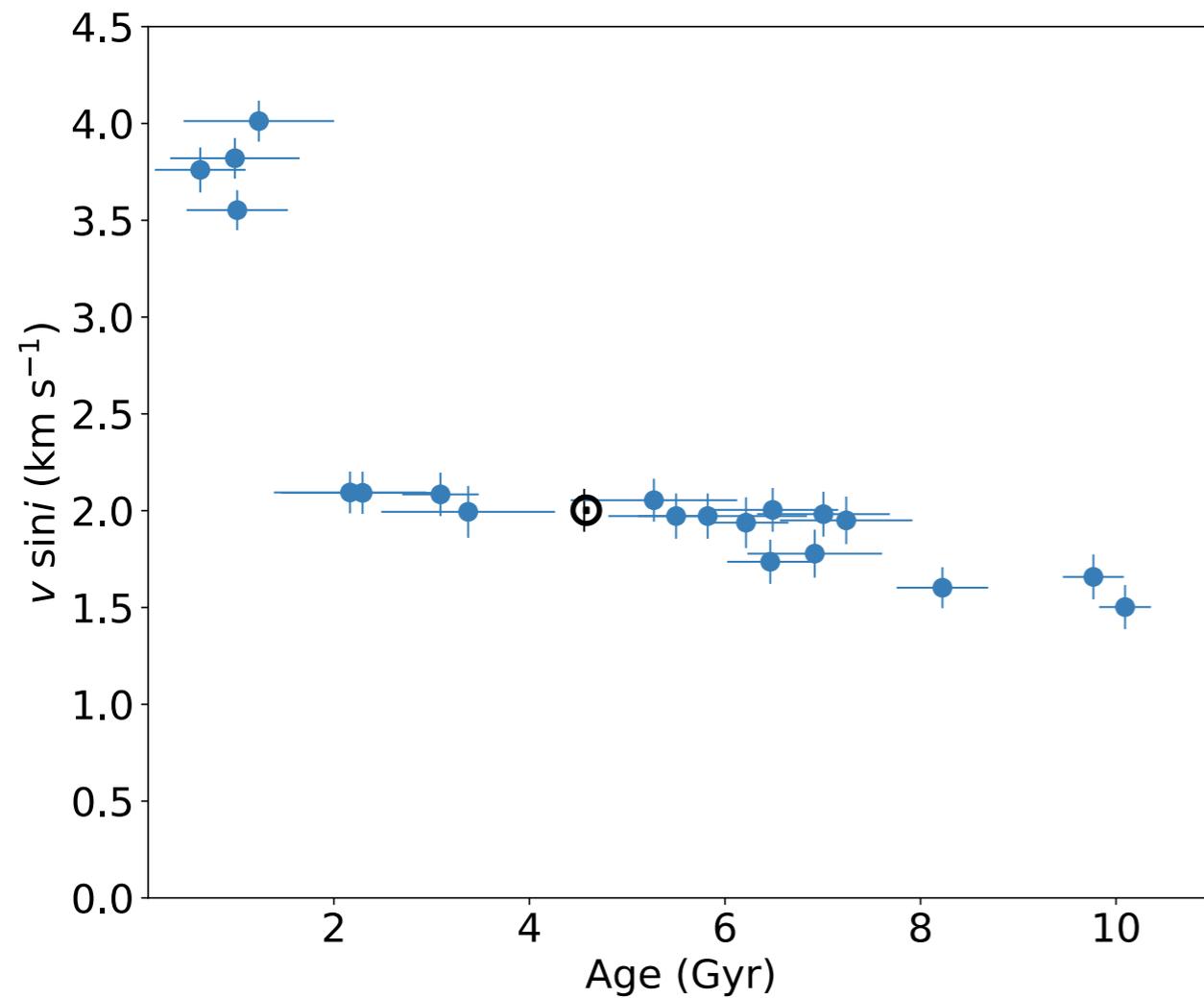


Radial velocities:
HARPS@La Silla 3.6 m telescope





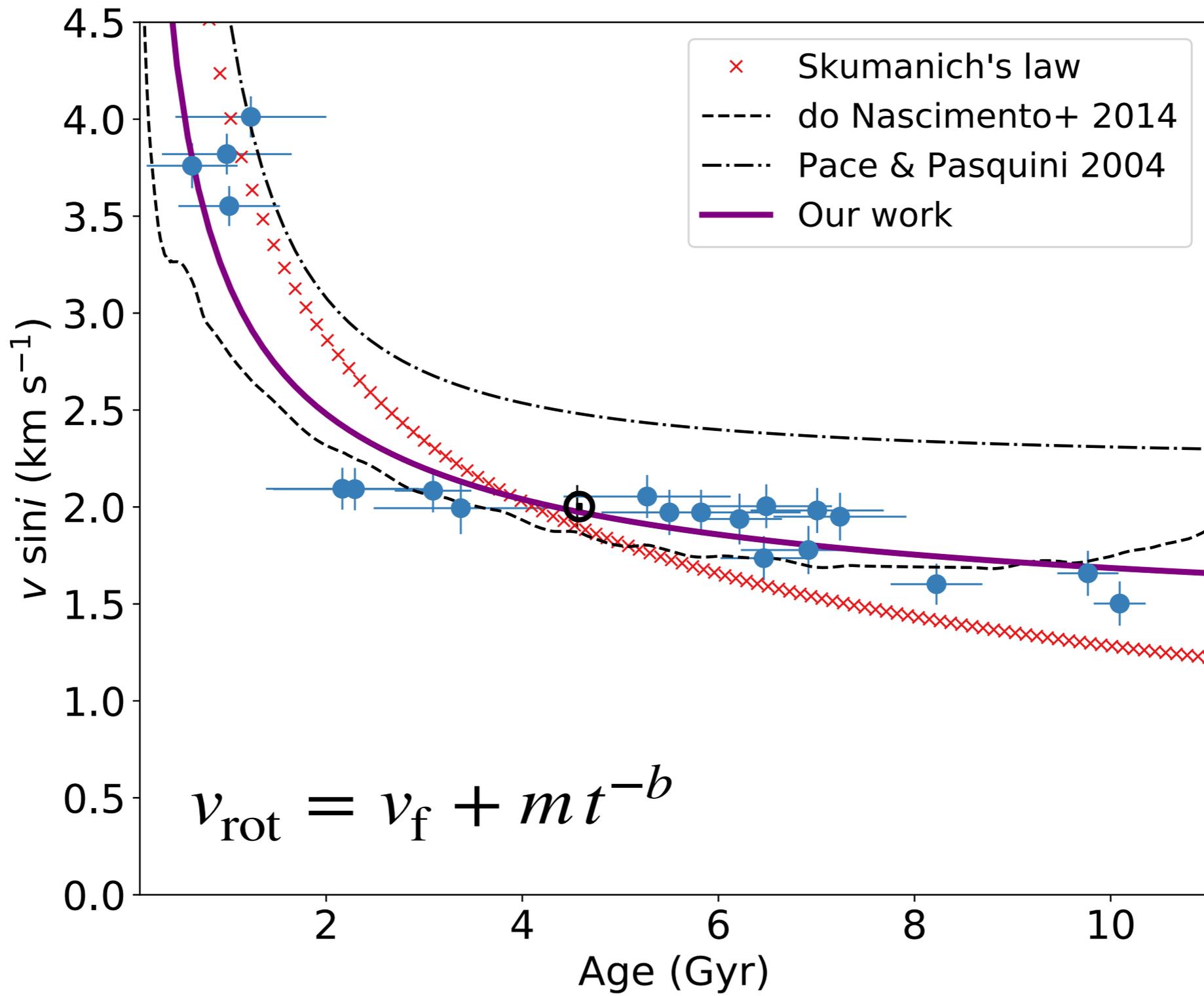


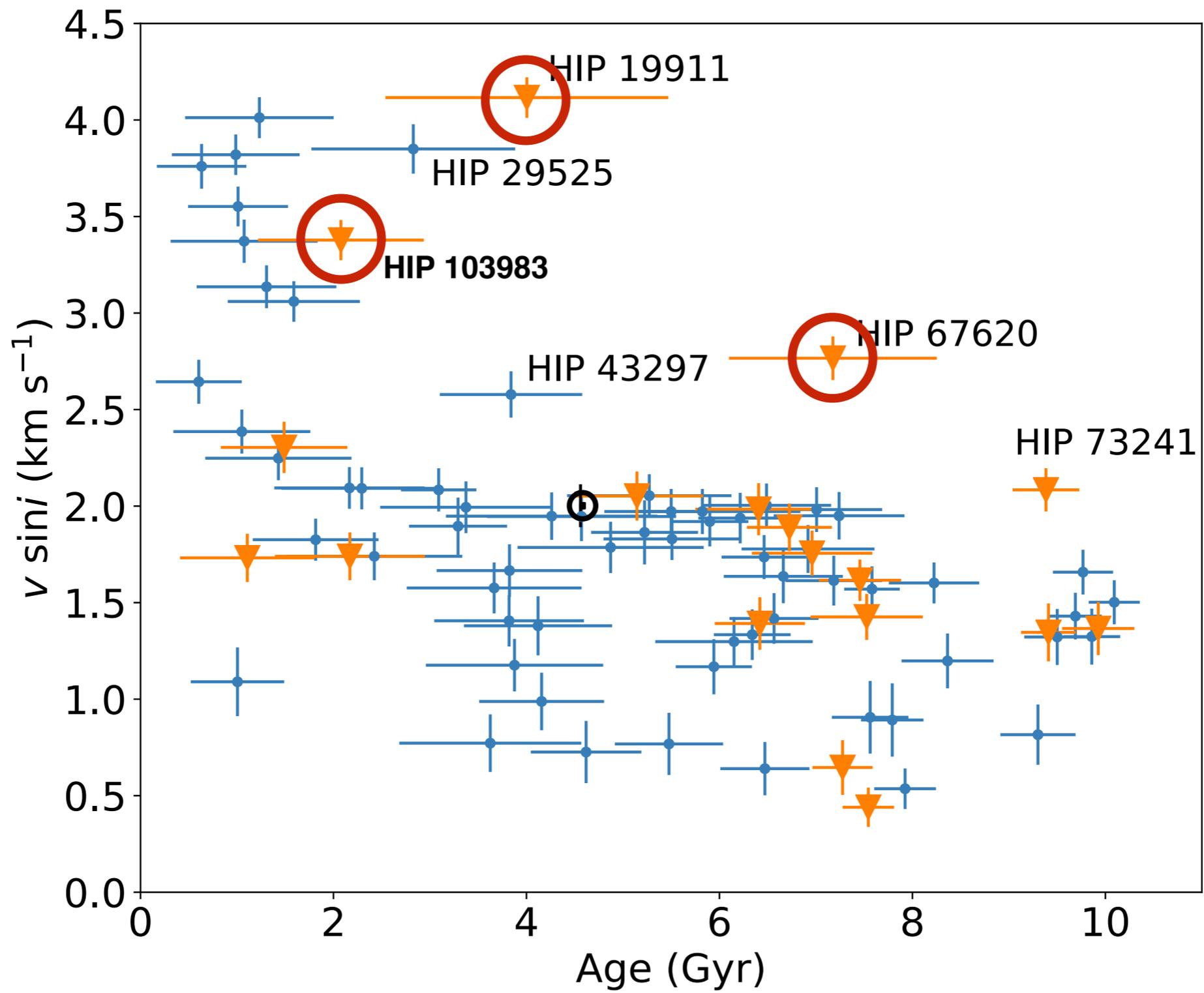


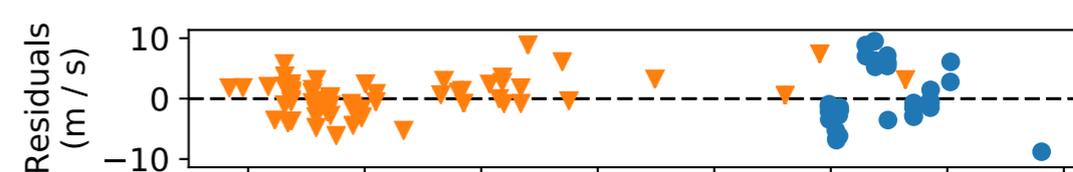
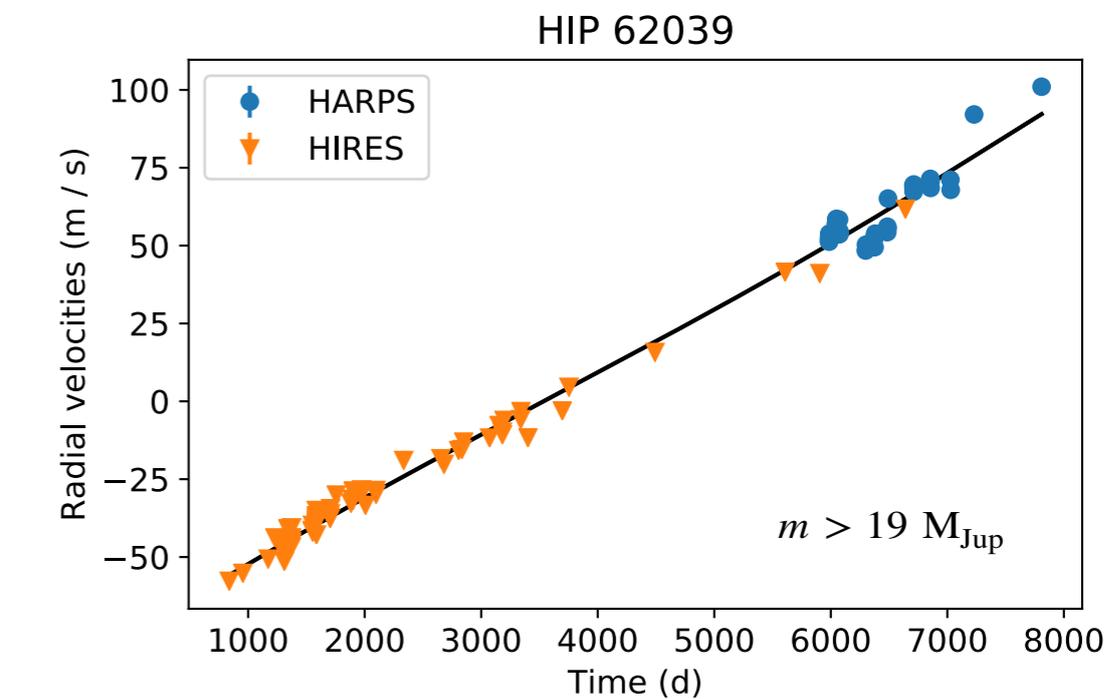
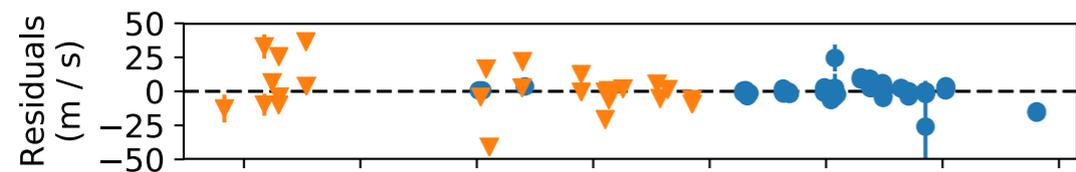
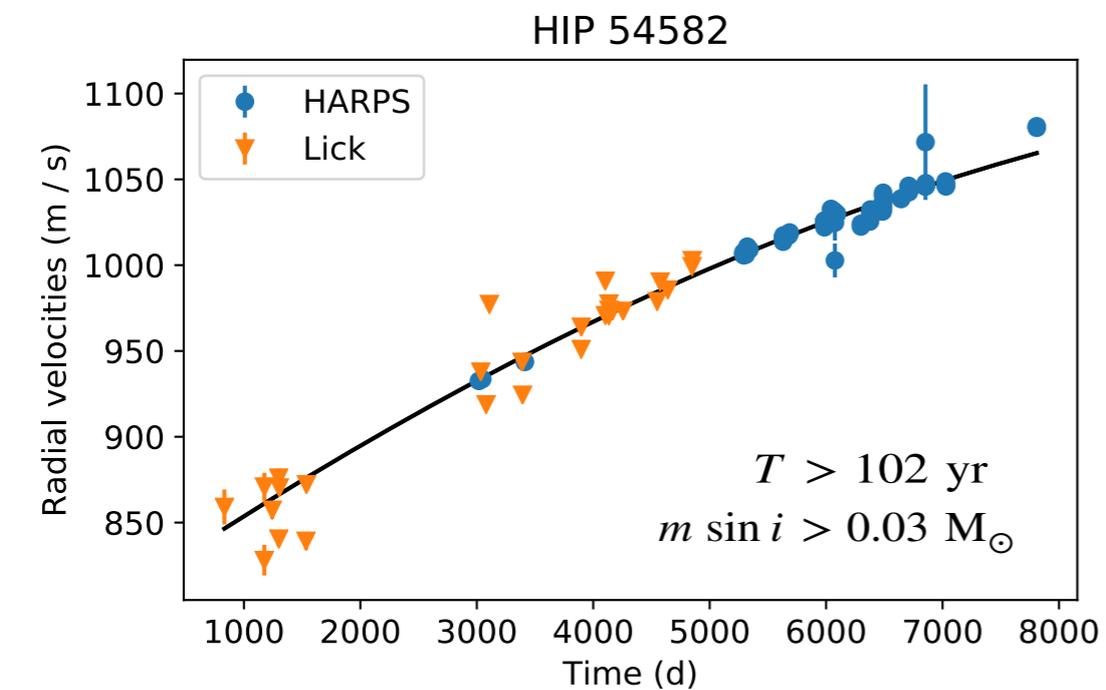
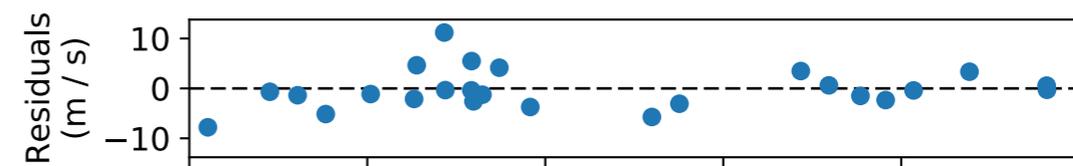
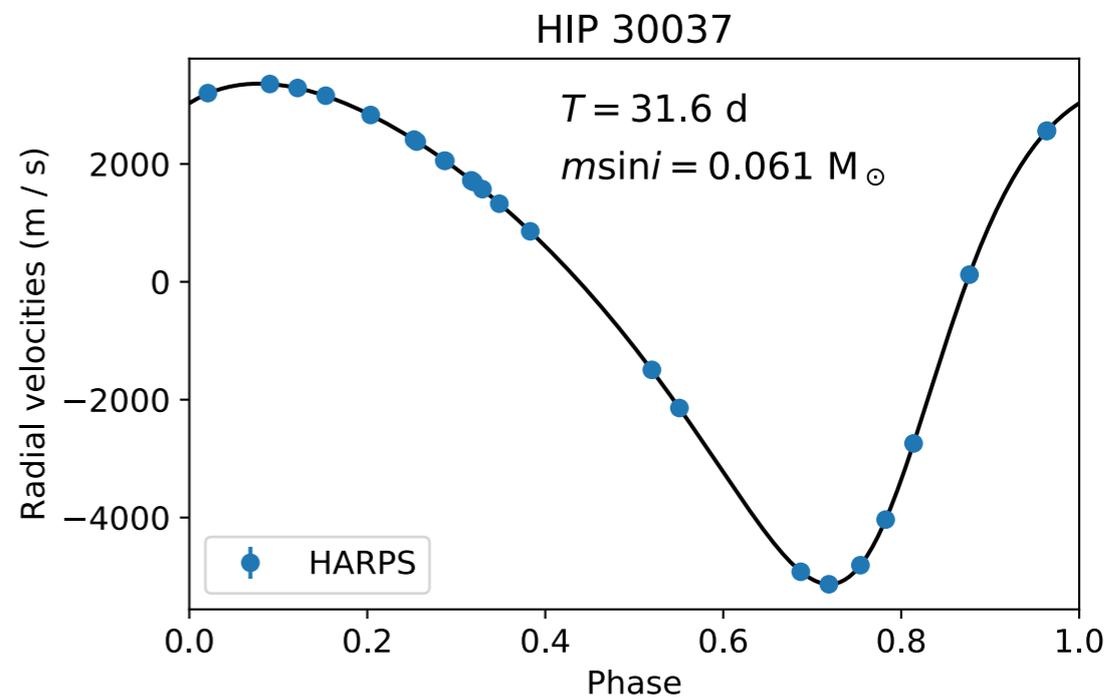
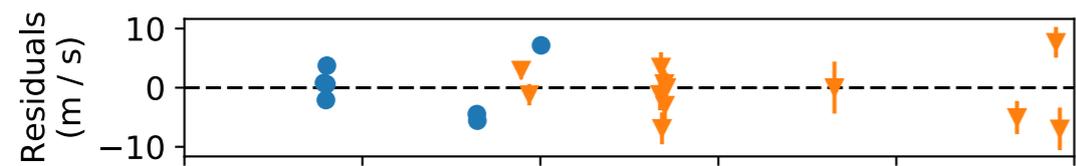
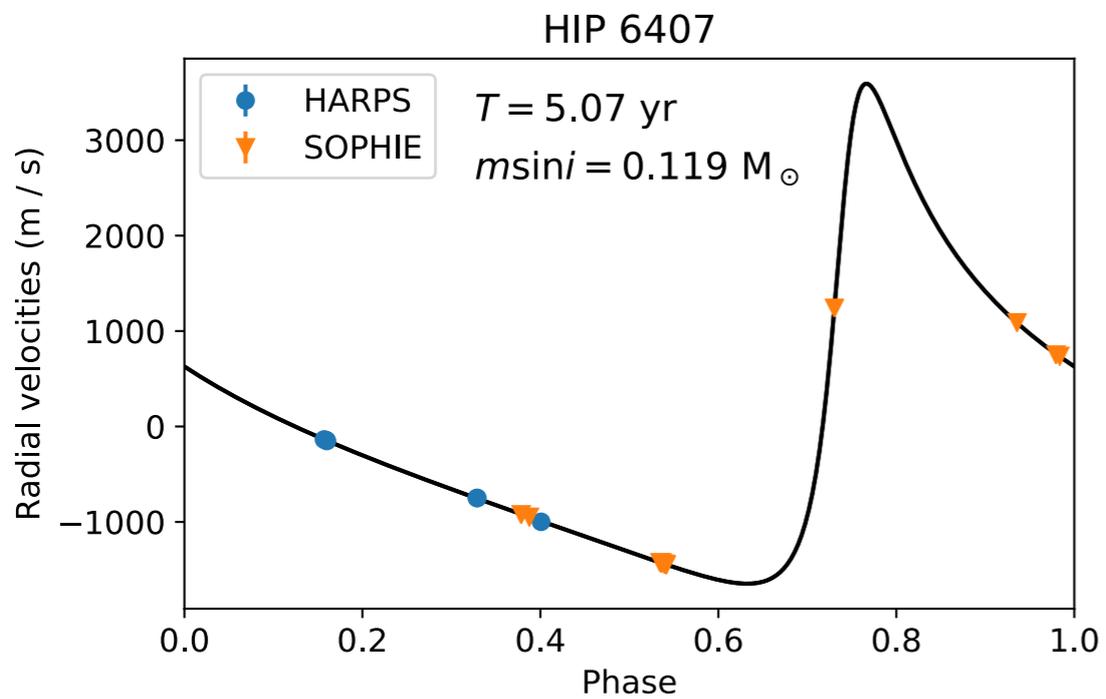
The Sun is indeed a **regular rotator** for its age

No need for **anthropic reasoning**

Good for **gyrochronology**







Take home messages

1. The Sun is indeed a **regular rotator** for its age
2. Solar twins **do not follow** Skumanich's law
3. **Binary companions** do not affect rotational evolution in moderate orbital periods

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