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***51 Pegasi b* Fellow**



"K2" in Antarctica

Kepler's Six Years In Science (and Counting)

By The Numbers*

2,258 DAYS
IN SPACE

2 MISSIONS
Kepler and K2

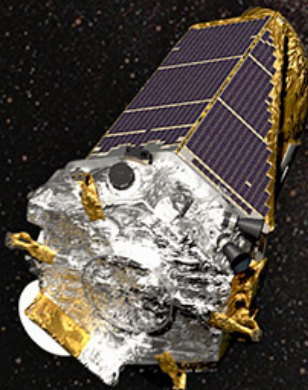
306,604
STARS OBSERVED

4,601
CANDIDATE
exoplanets

12.5 BILLION
brightness
measurements of stars

1,024
CONFIRMED
exoplanets

20.9
TERABYTES
publicly available data



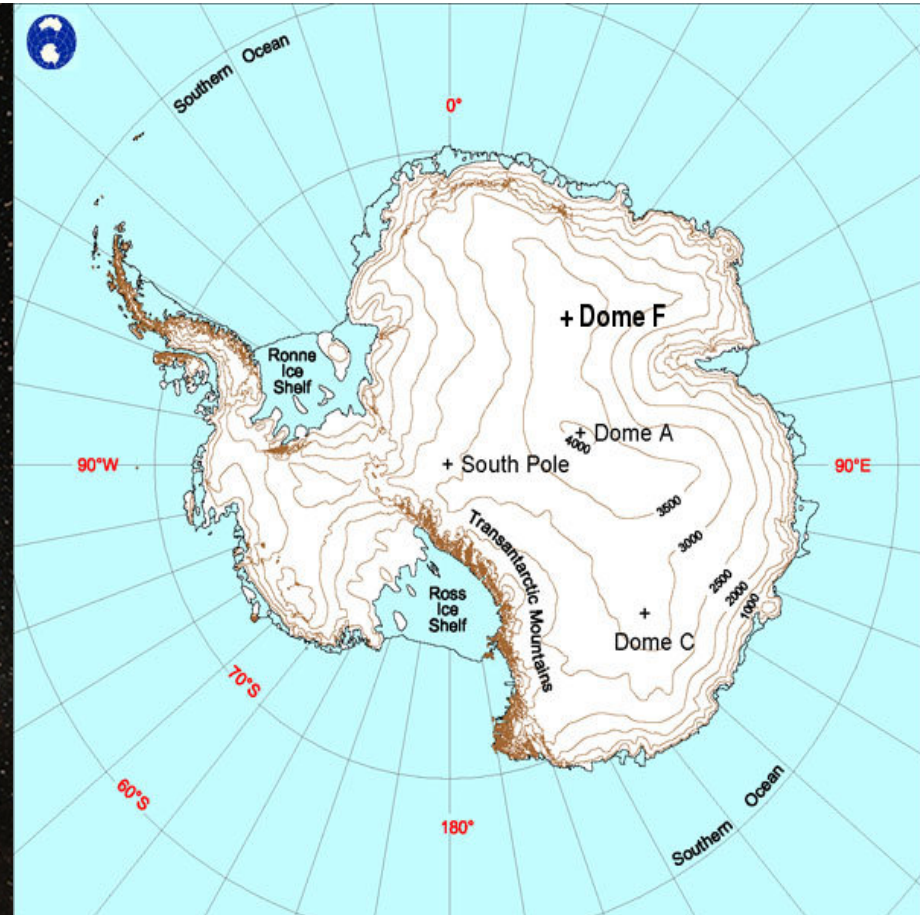
64 MILLION MILES AWAY
trailing Earth around the sun

8 CONFIRMED
SMALL HABITABLE ZONE
EXOPLANETS

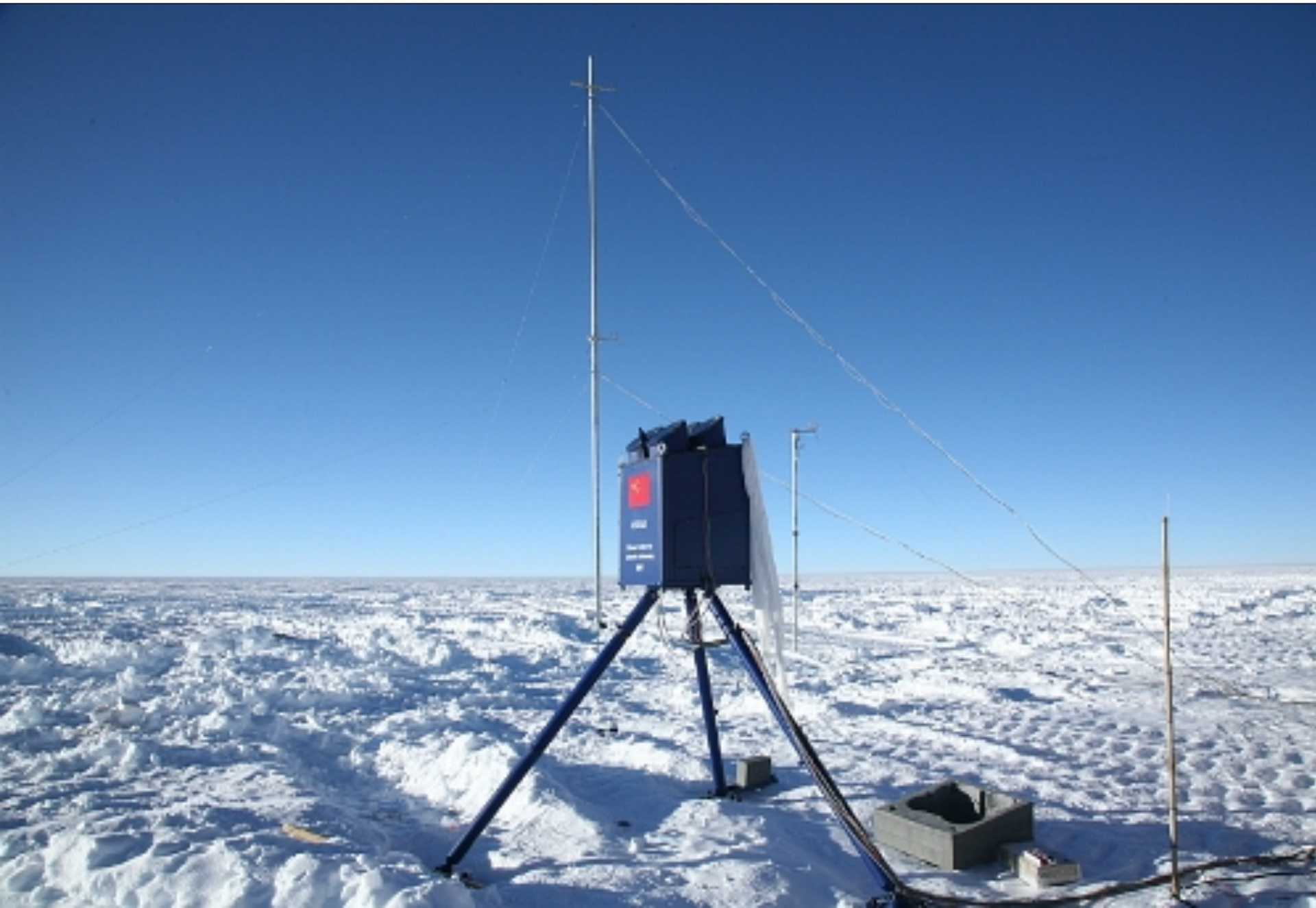


www.nasa.gov/kepler

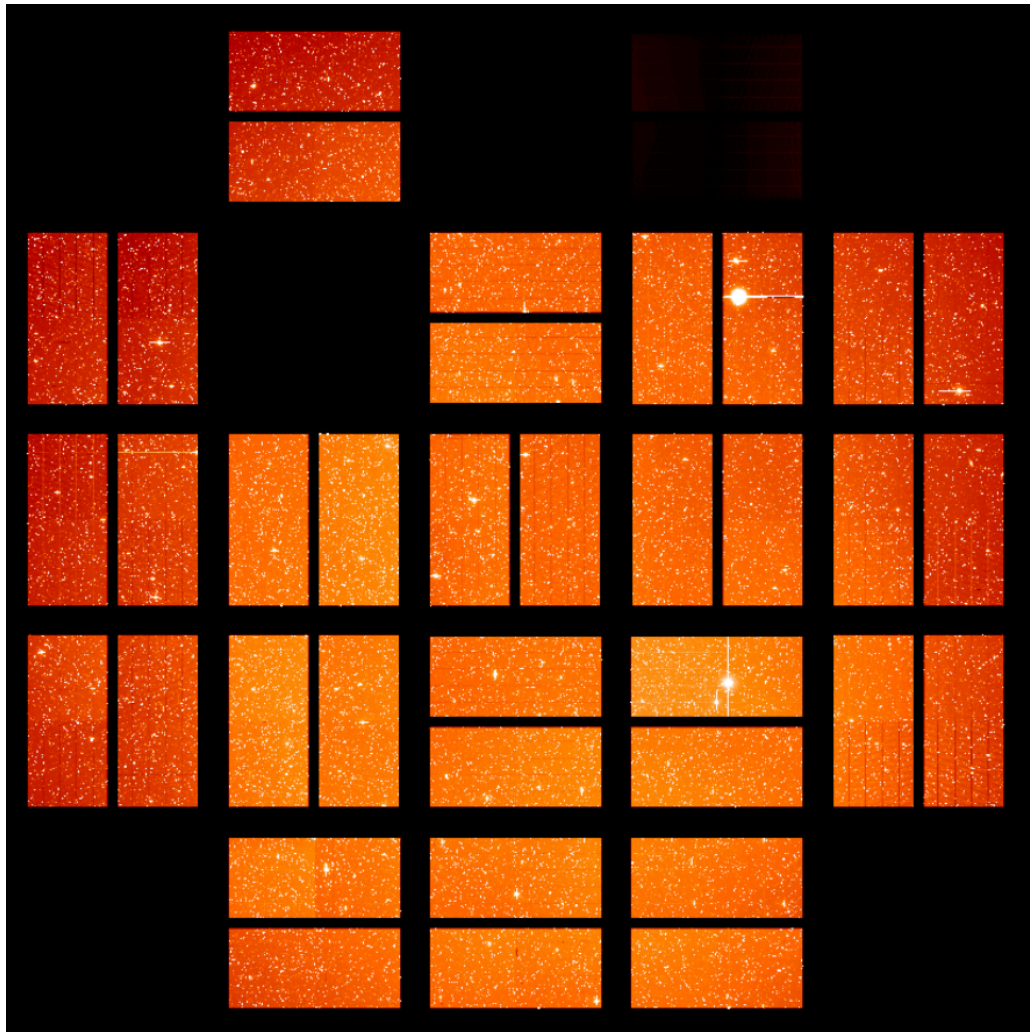
* As of May 12, 2015



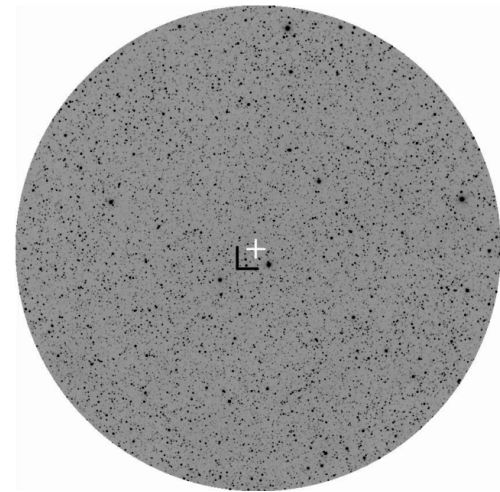
“K2” in Antarctica



Aperture/Field of View



1m/116deg²



15cm/31deg²

Time base line

75day

K2

150day

CSTAR

Exposure Time/Photometric Precision

30min

170ppm **K2**

20sec

4mmag **CSTAR**

Wang et al. 2012
Meng et al. 2013
Wang et al. 2014a

Exposure Time/Photometric Precision

6.5hr

30ppm

K2

6.5hr

120ppm **CSTAR**

Exposure Time/Photometric Precision

6.5hr

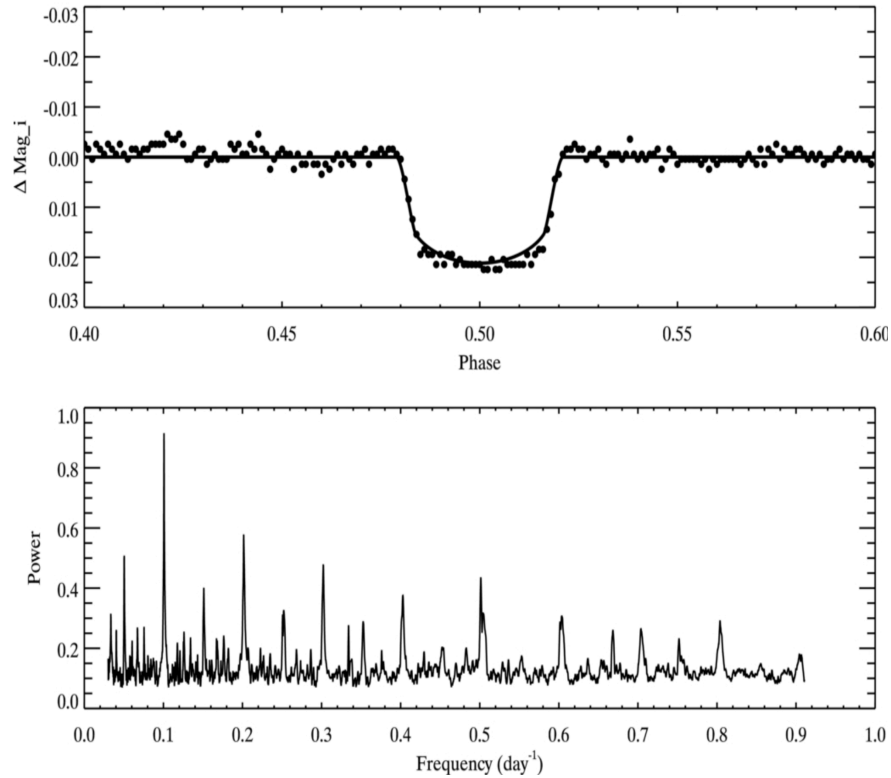
30ppm

K2

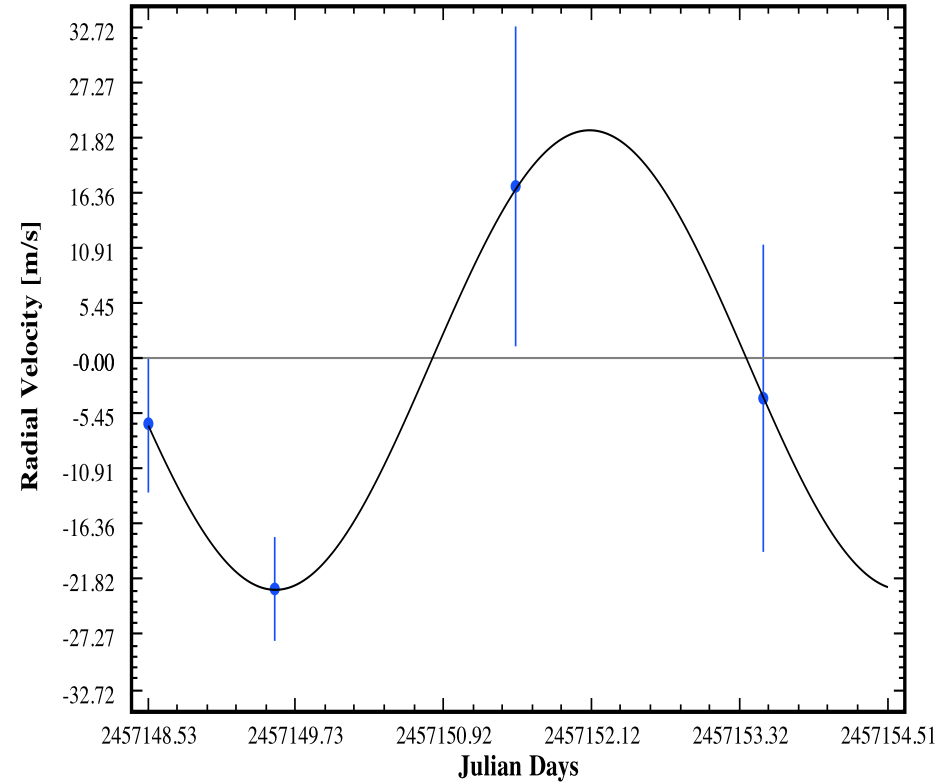
6.5hr

80ppm

CSTAR



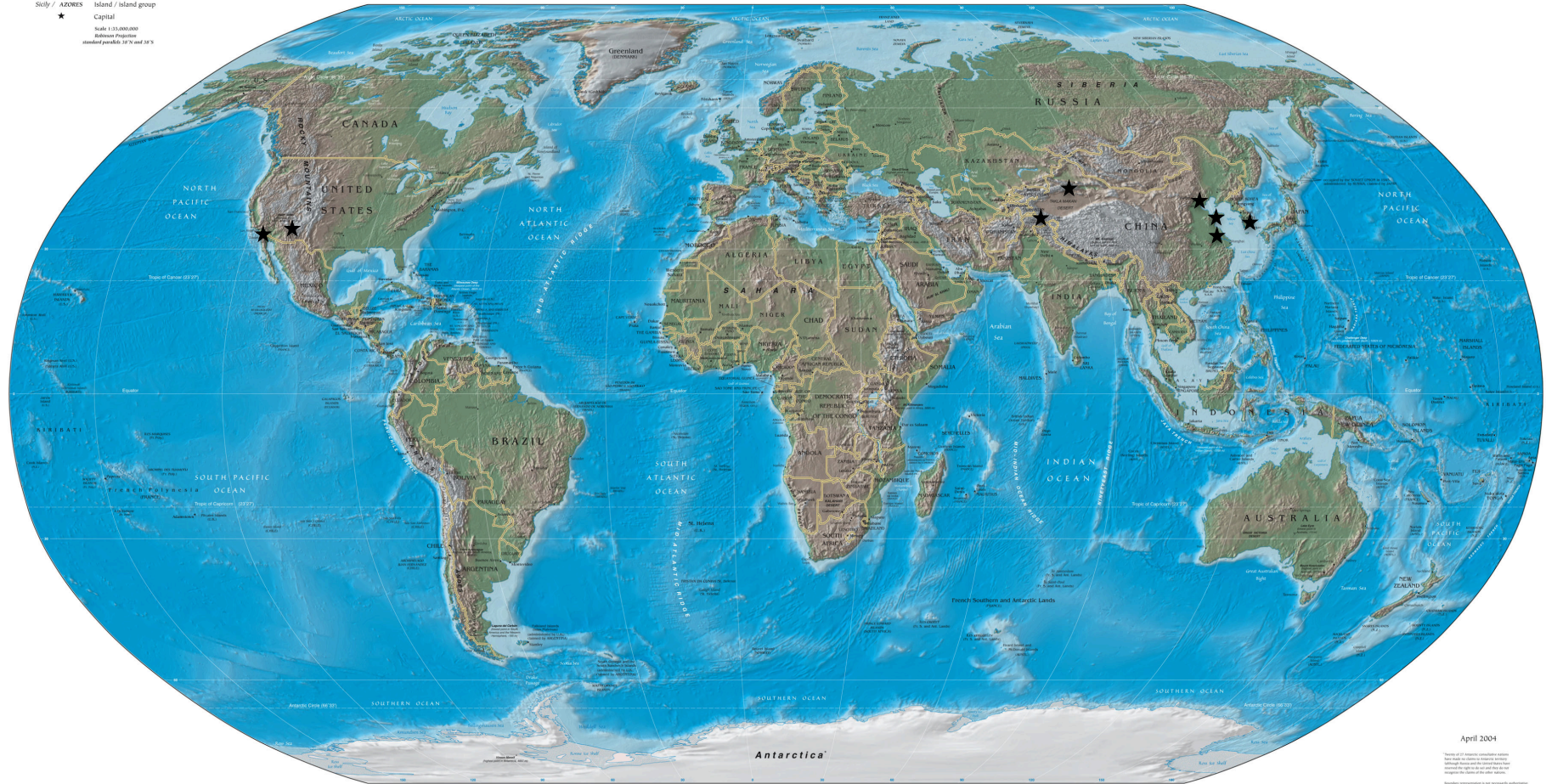
Wang et al. 2014b



Wang et al. 2017a, In Prep.

Telescope Near K2

AUSTRALIA Independent state
Bermuda Dependency or area of special sovereignty
Sicily / AZORES Island / island group
★ Capital
Scale 1:125,000,000
Reference: Projections
standard parallels 30°N and 30°S



April 2004

Names of U.S. states and territories are shown in all caps. Names of other countries are shown in title case. Names of bodies of water are shown in title case. Names of cities and towns are shown in title case. Names of islands and island groups are shown in title case. Names of seas and oceans are shown in title case. Names of rivers and lakes are shown in title case. Names of mountains and hills are shown in title case. Names of other geographical features are shown in title case.

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Telescope Near K2

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Reference Projections
standard parallels 28°N and 28°S

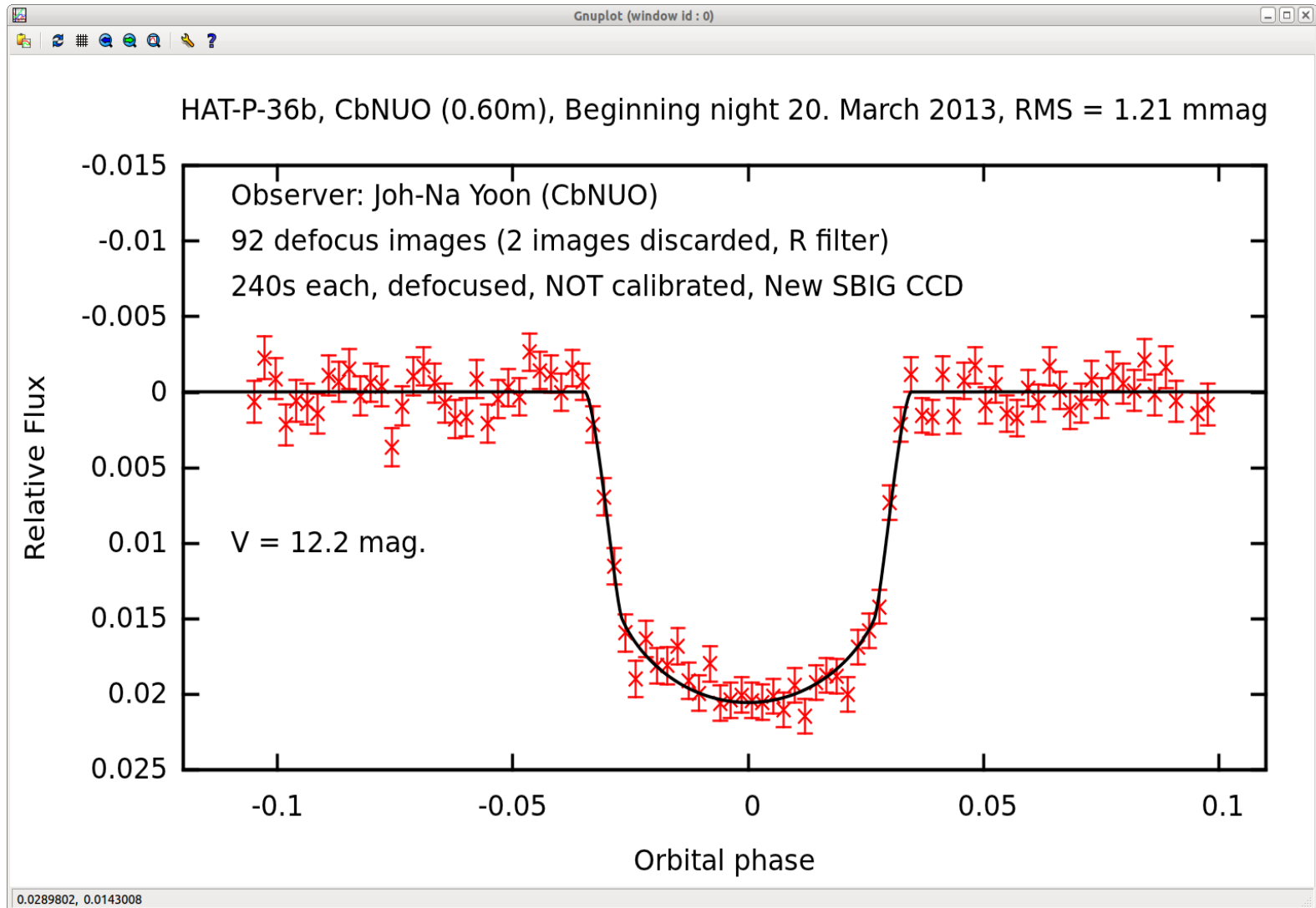


April 2004

*Based on US National Geographic Society
data and maps. The map is not a true
representation of the world and should not
be used for navigation or other purposes.
Boundary representations are not necessarily authoritative.

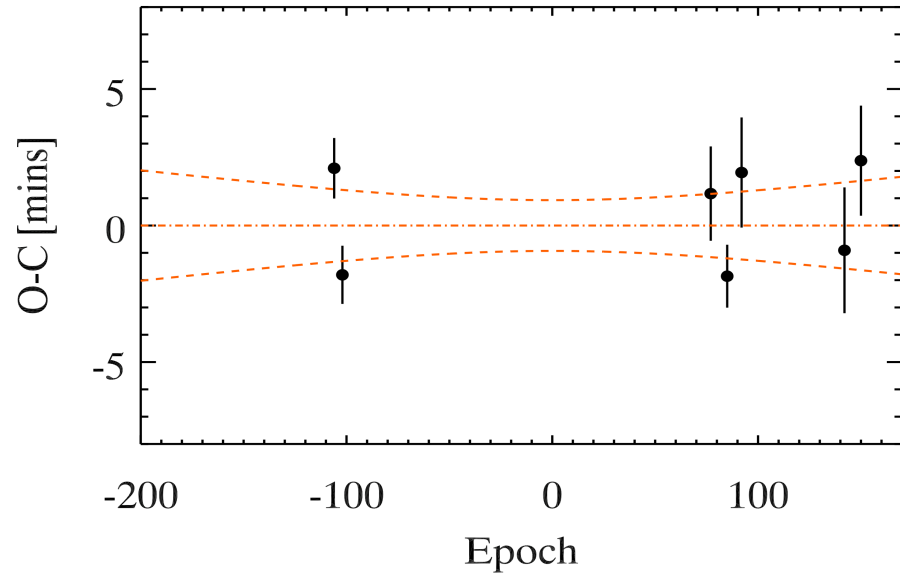
©2004 National Geographic Society

TEMP Light Curve

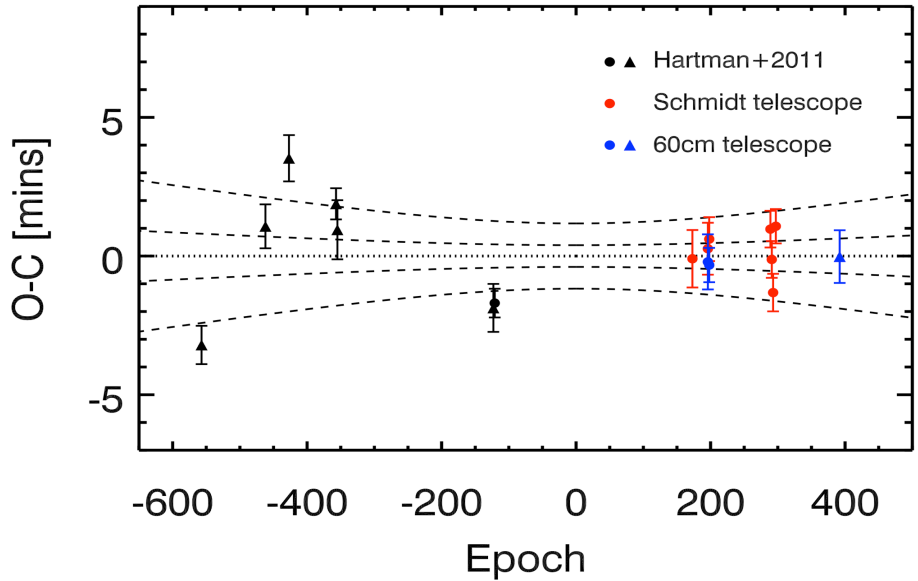


Wang et al. 2017b In Prep.

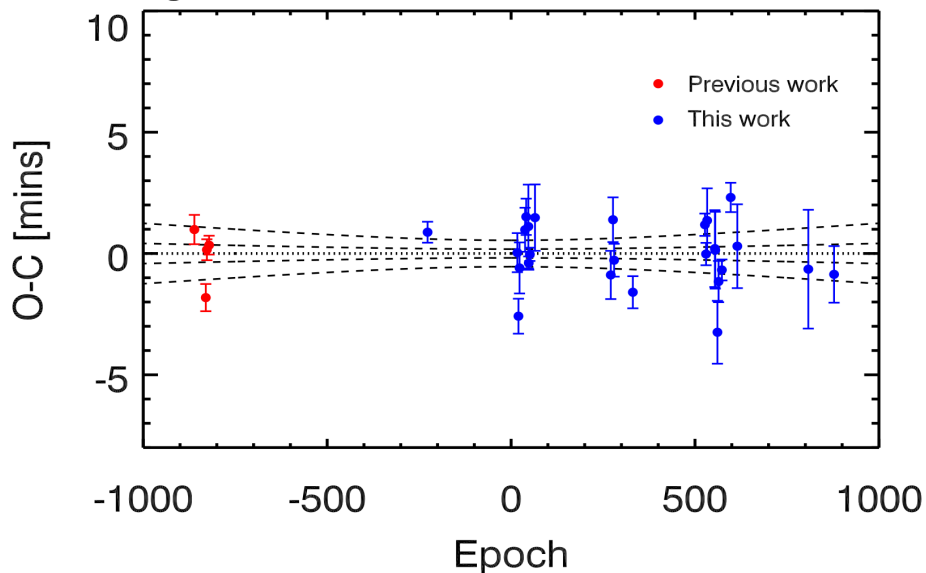
TEMP TTV



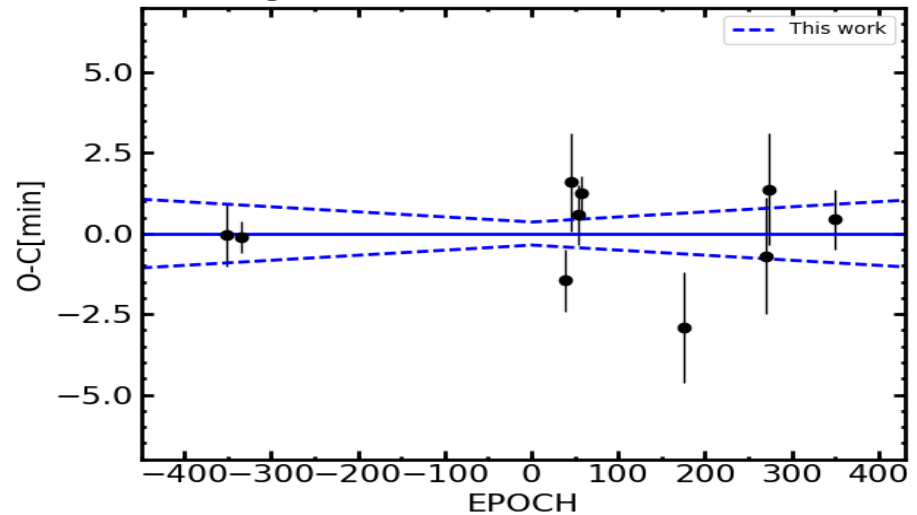
Wang S. et al. 2017c, Submitted



Wang Y. et al. 2017



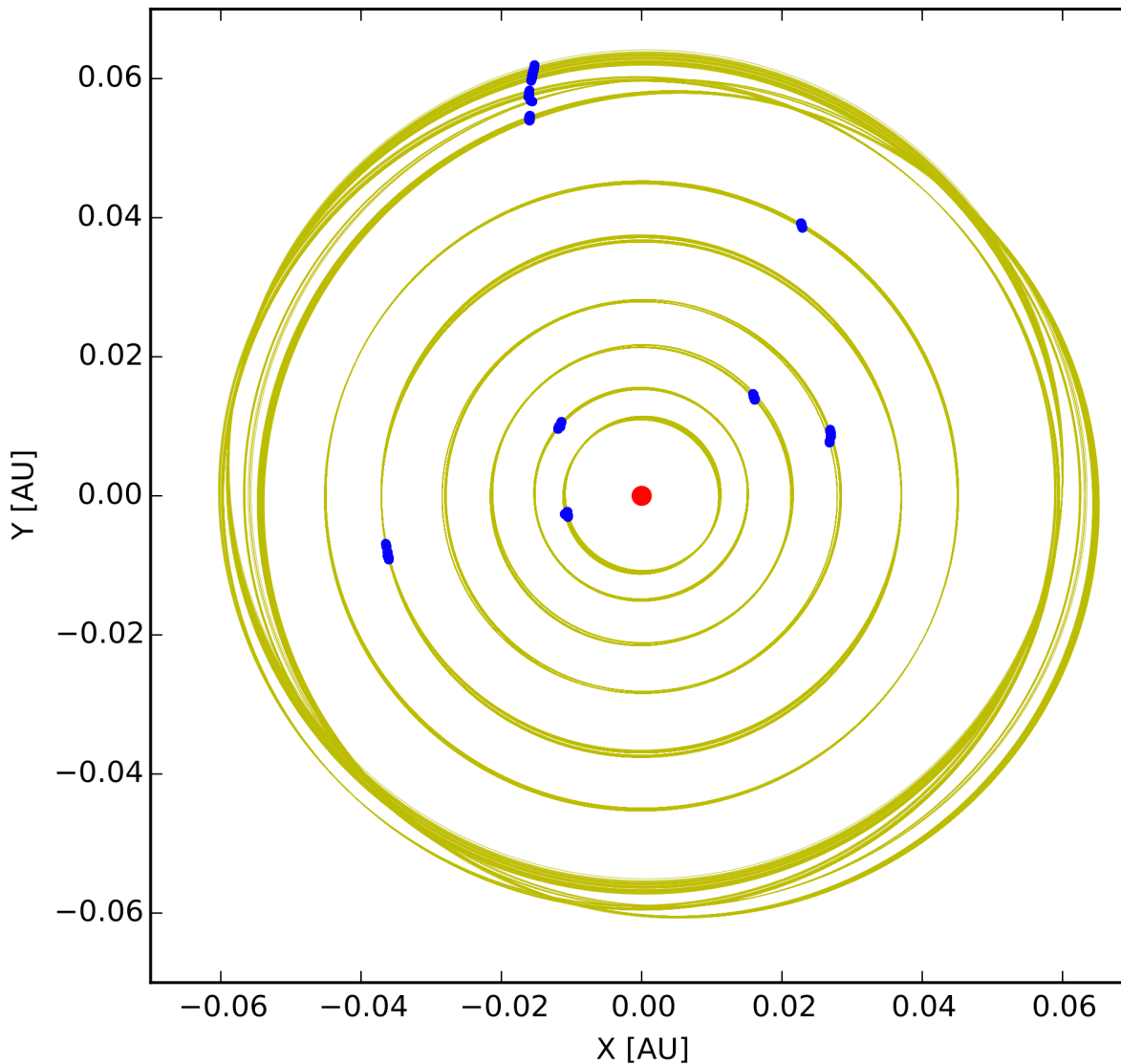
Wang Y. et al. 2017 In Prep.



Wang X. et al. 2017 In Prep.

Updated Masses for Trappist-1 Planets with K2

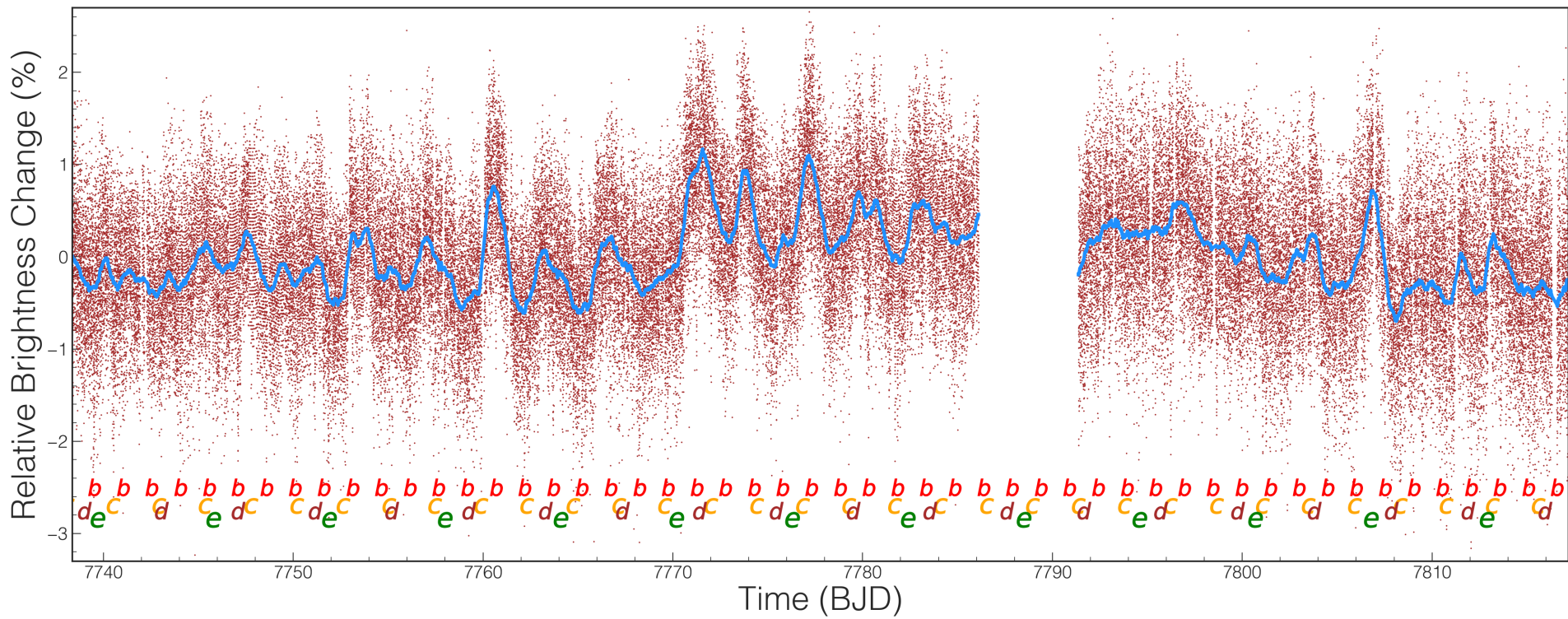
Trappist-1



7-planet System

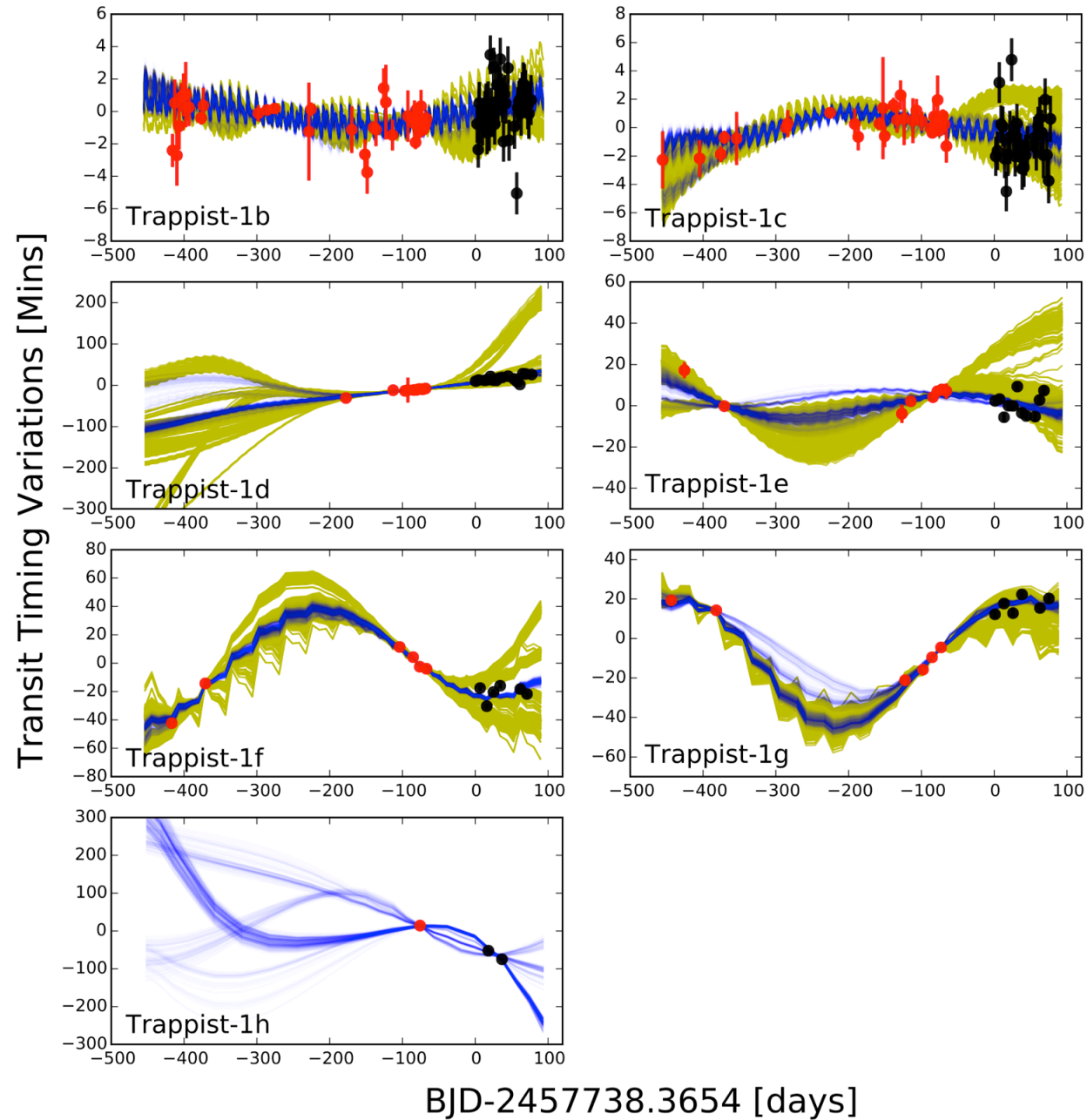
- $V_{\text{mag}}=18.8$
- Resonant Chain

Trappist-1



Credit: Thomas Barclay

Trappist-1



Trappist-1

