



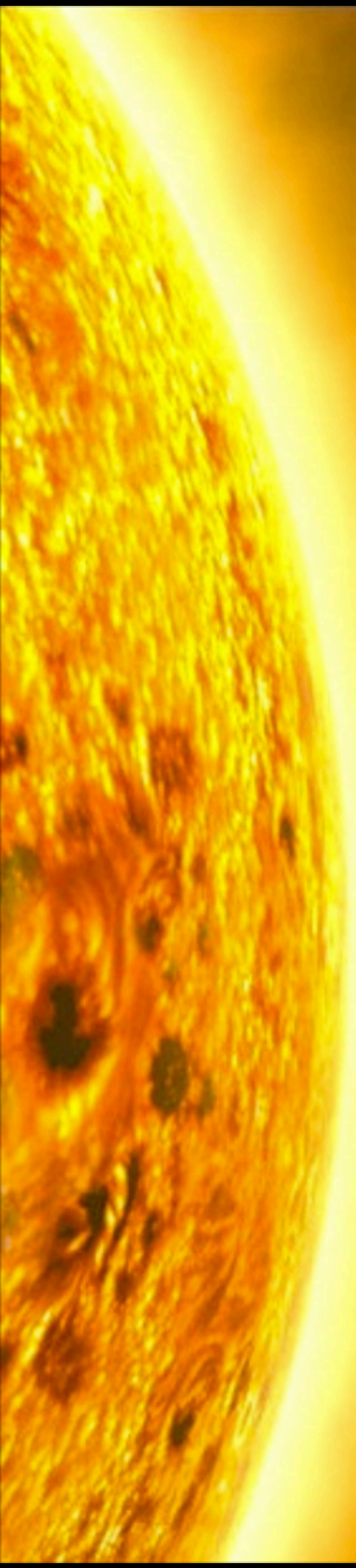
# Winks and Wobbles

Exoplanets, how to find them, and what they're like

Dr David Brown  
The University of Warwick



What?



Mercury

Venus

Earth

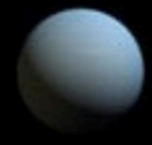
Mars

Jupiter

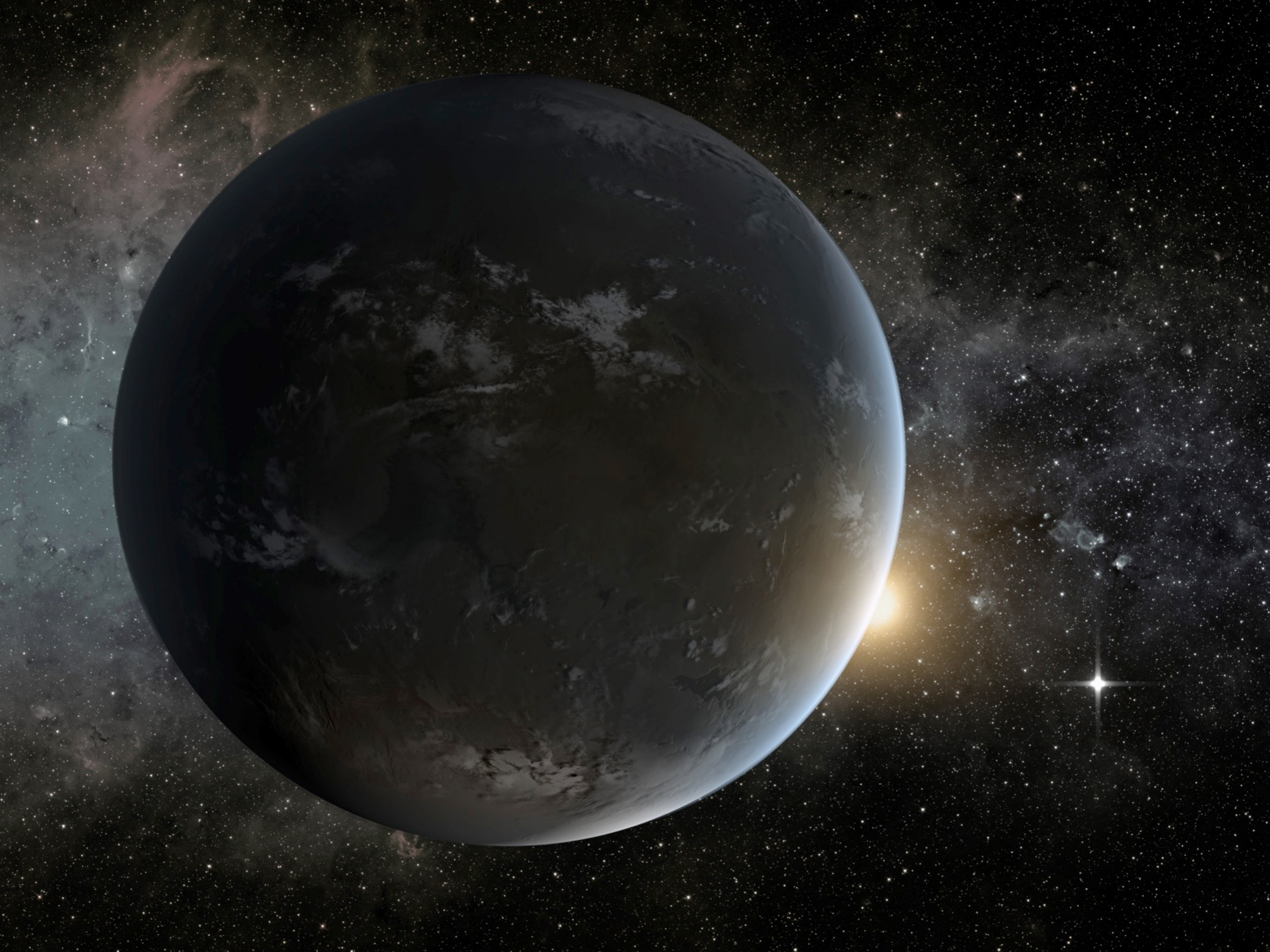
Saturn

Uranus

Neptune











How?



Winks

Wobbles





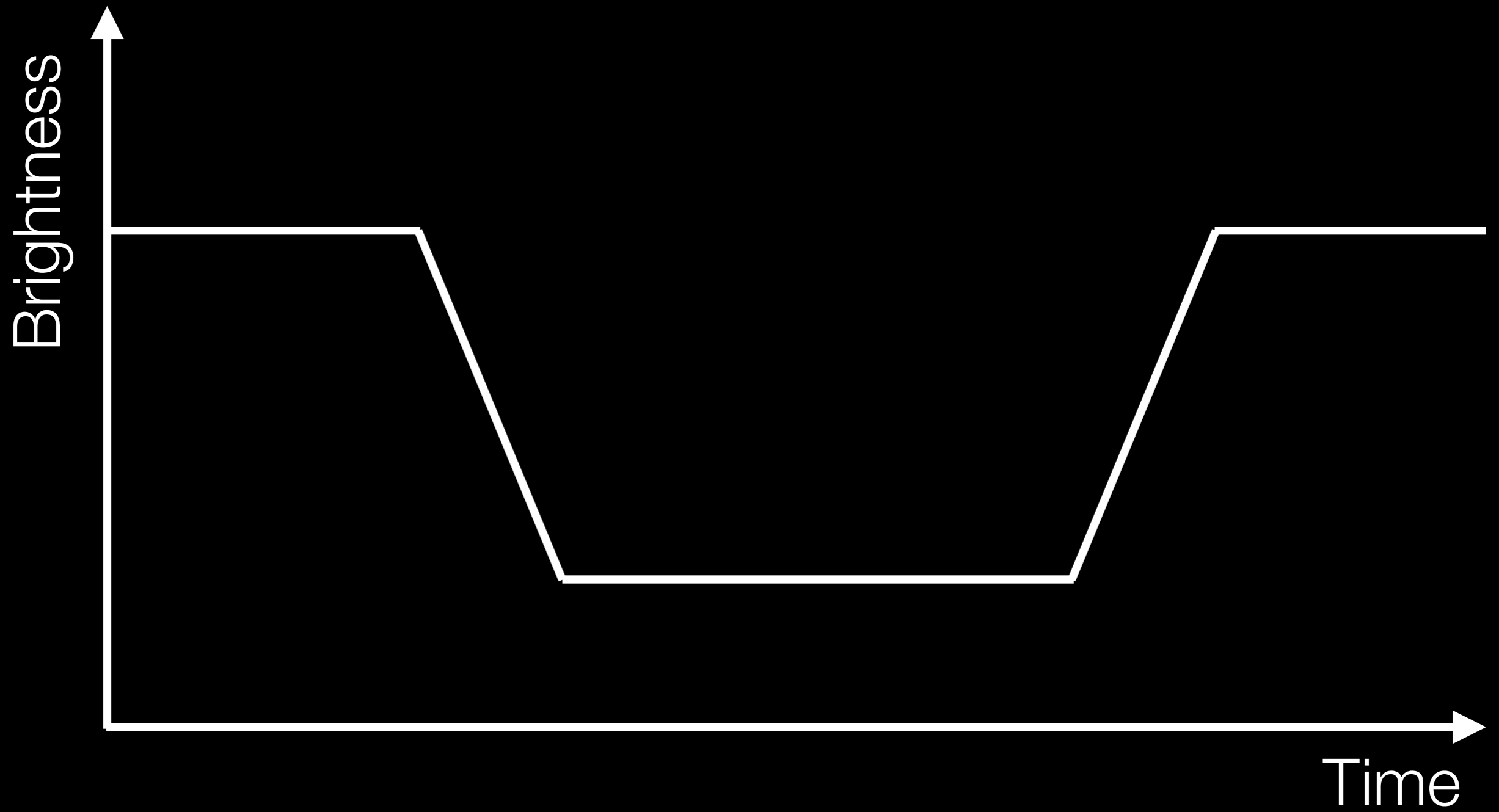
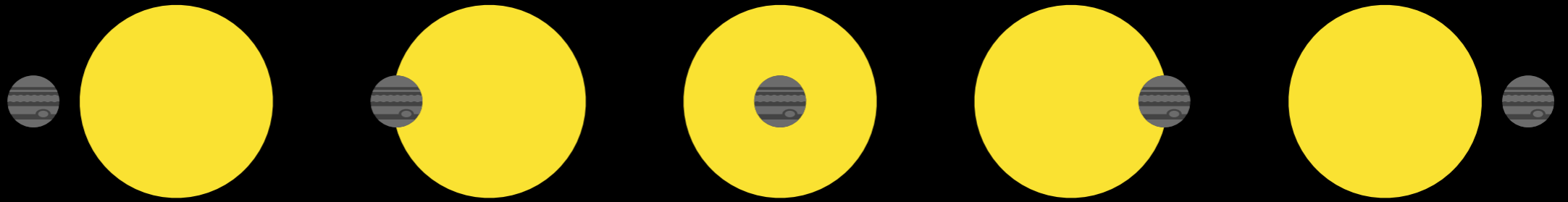
Winks

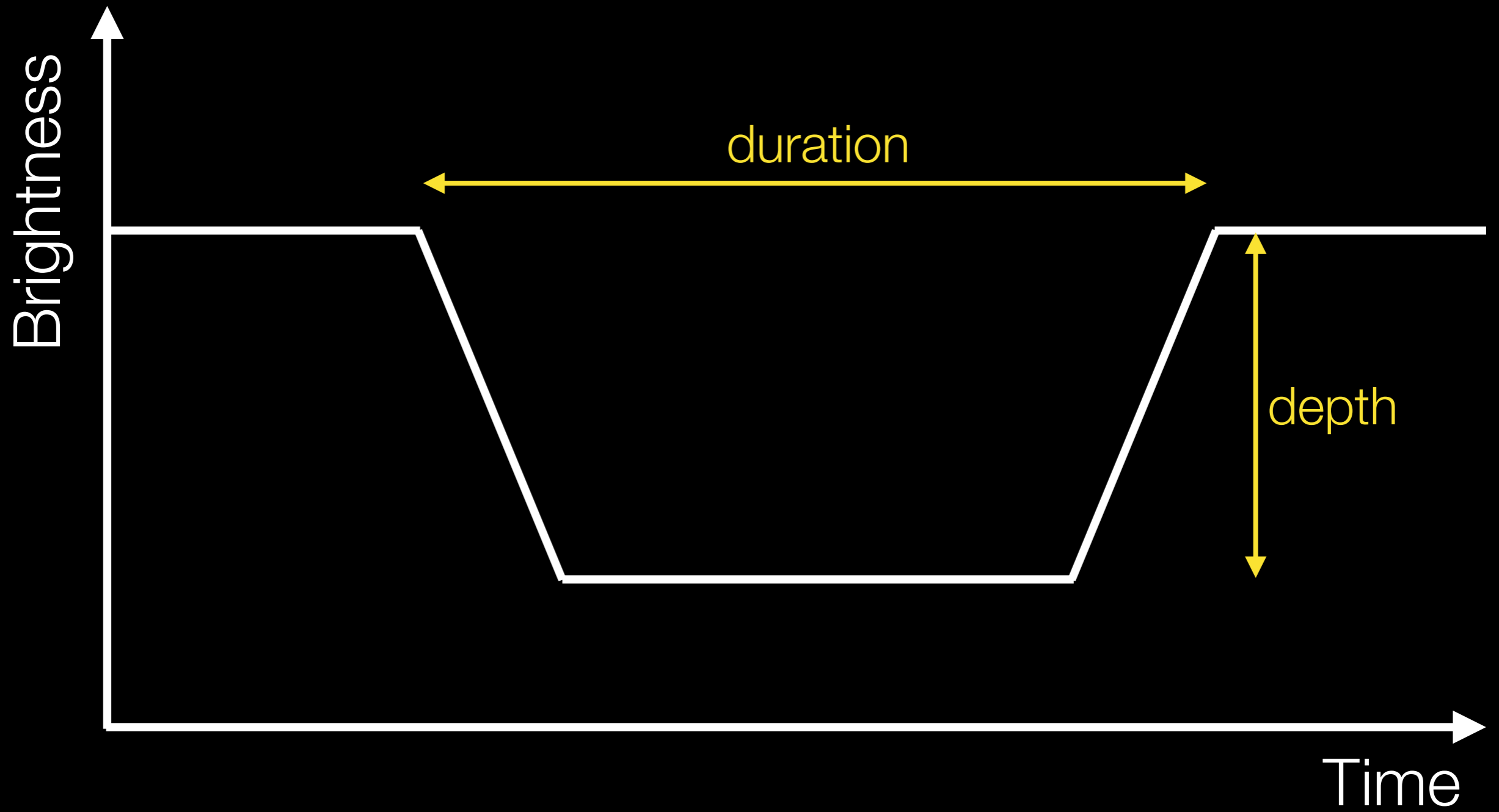
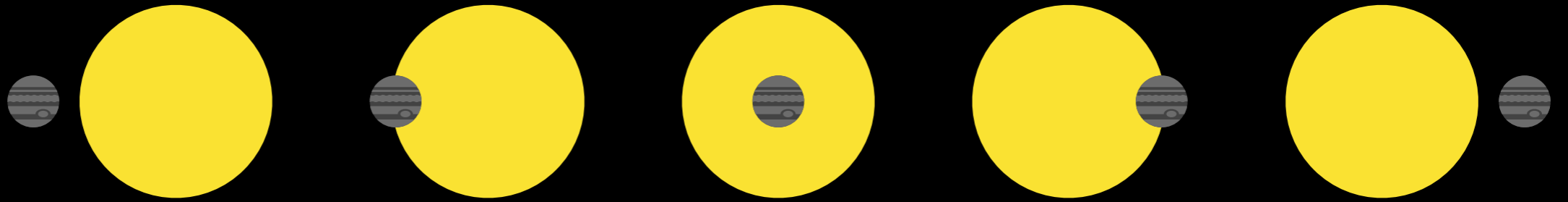
Transit method

Wobbles

Radial velocity method

Demonstration time!



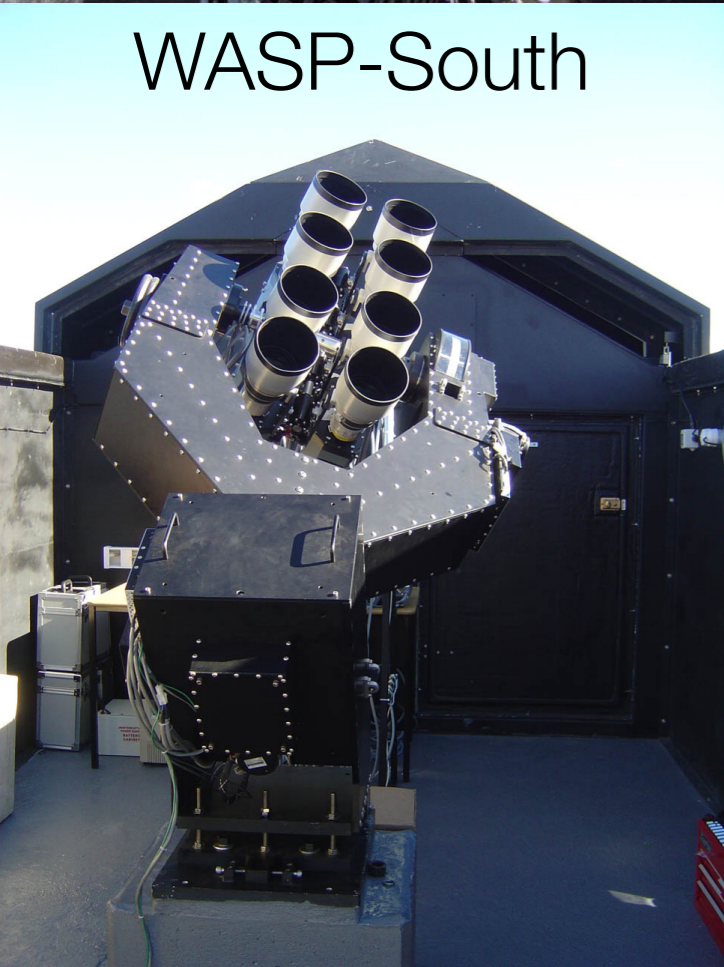


Your turn to explore

[www.warwick.ac.uk/davidjabrown/transitworkshop](http://www.warwick.ac.uk/davidjabrown/transitworkshop)



Who?





# PLATO







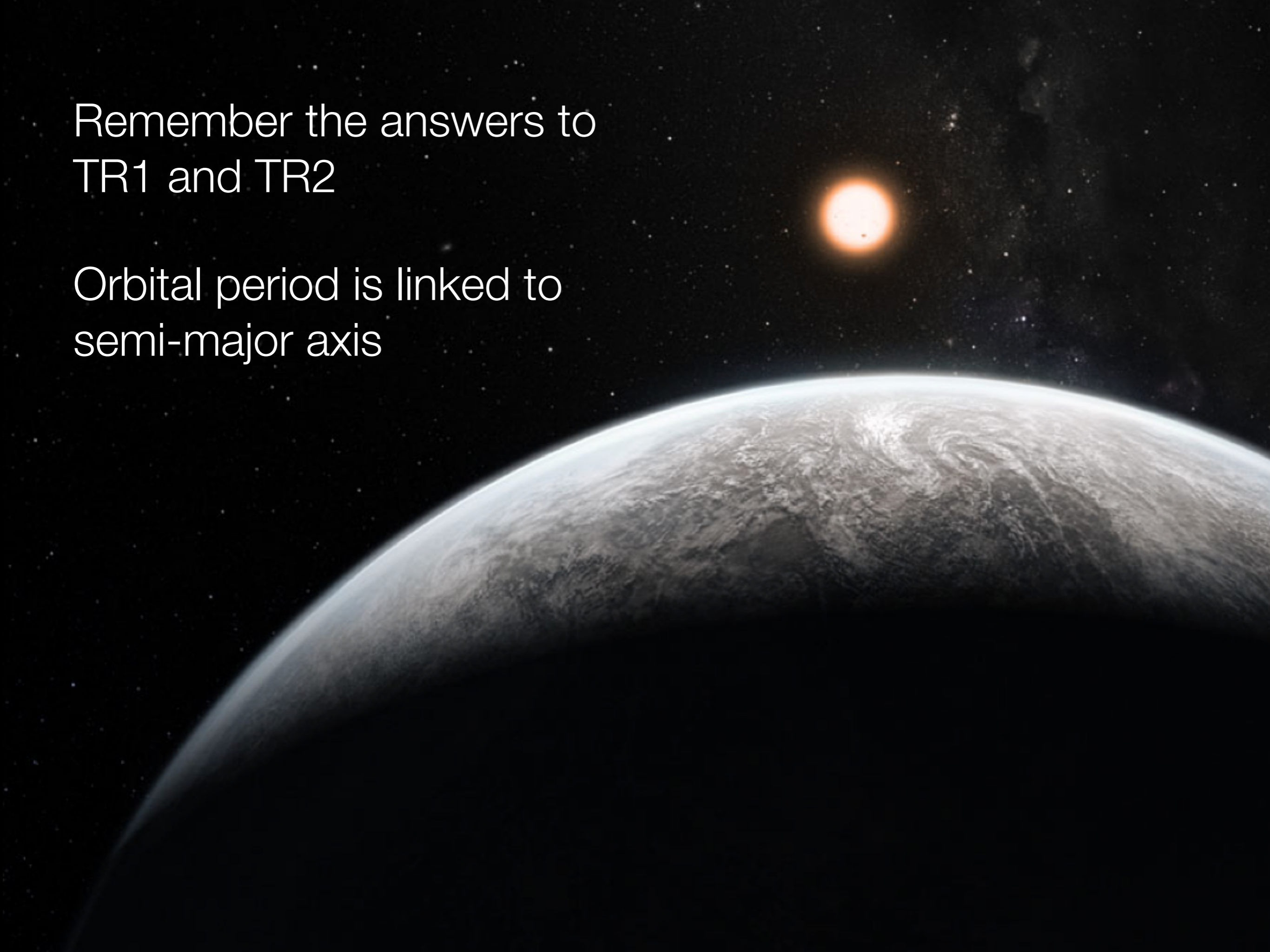
YOU!

Your turn to investigate

[www.warwick.ac.uk/davidjabrown/transitworkshop](http://www.warwick.ac.uk/davidjabrown/transitworkshop)

Remember the answers to  
TR1 and TR2

Orbital period is linked to  
semi-major axis



a) system8

b) system9

c) system2

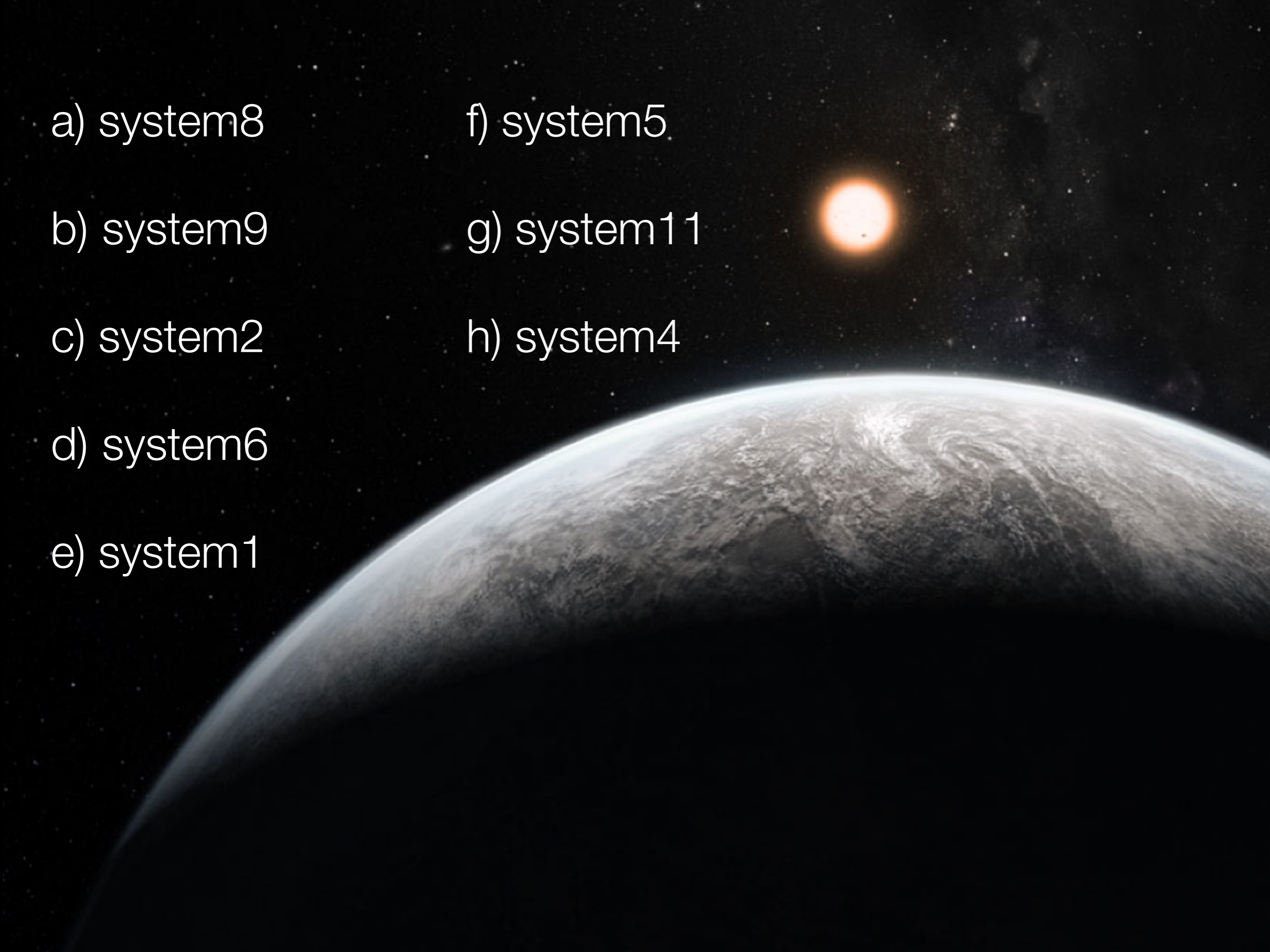
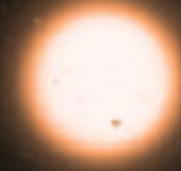
d) system6

e) system1

f) system5

g) system11

h) system4



a) system8

b) system9

c) system2

d) system6

e) system1

f) system5

g) system11

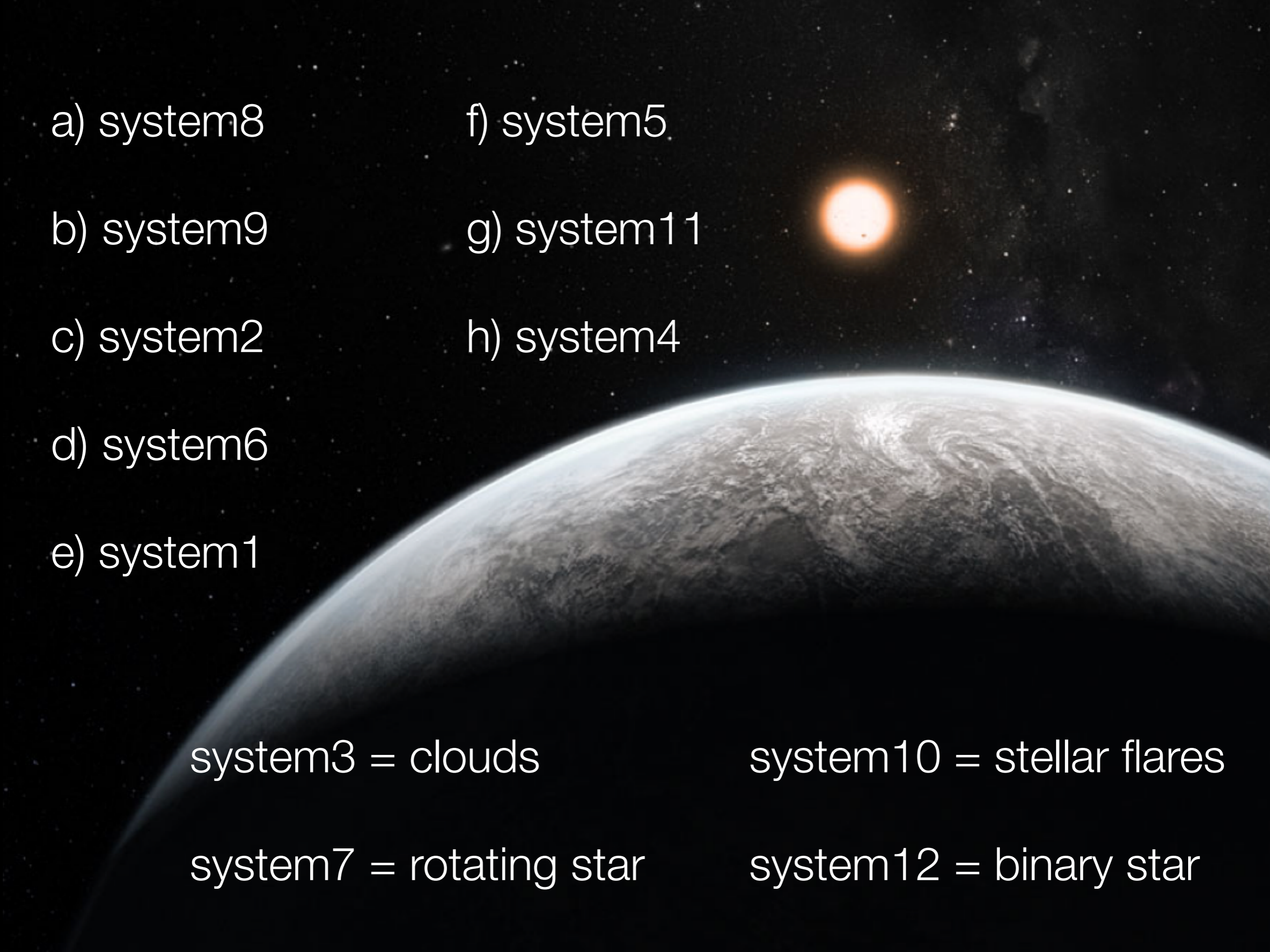
h) system4

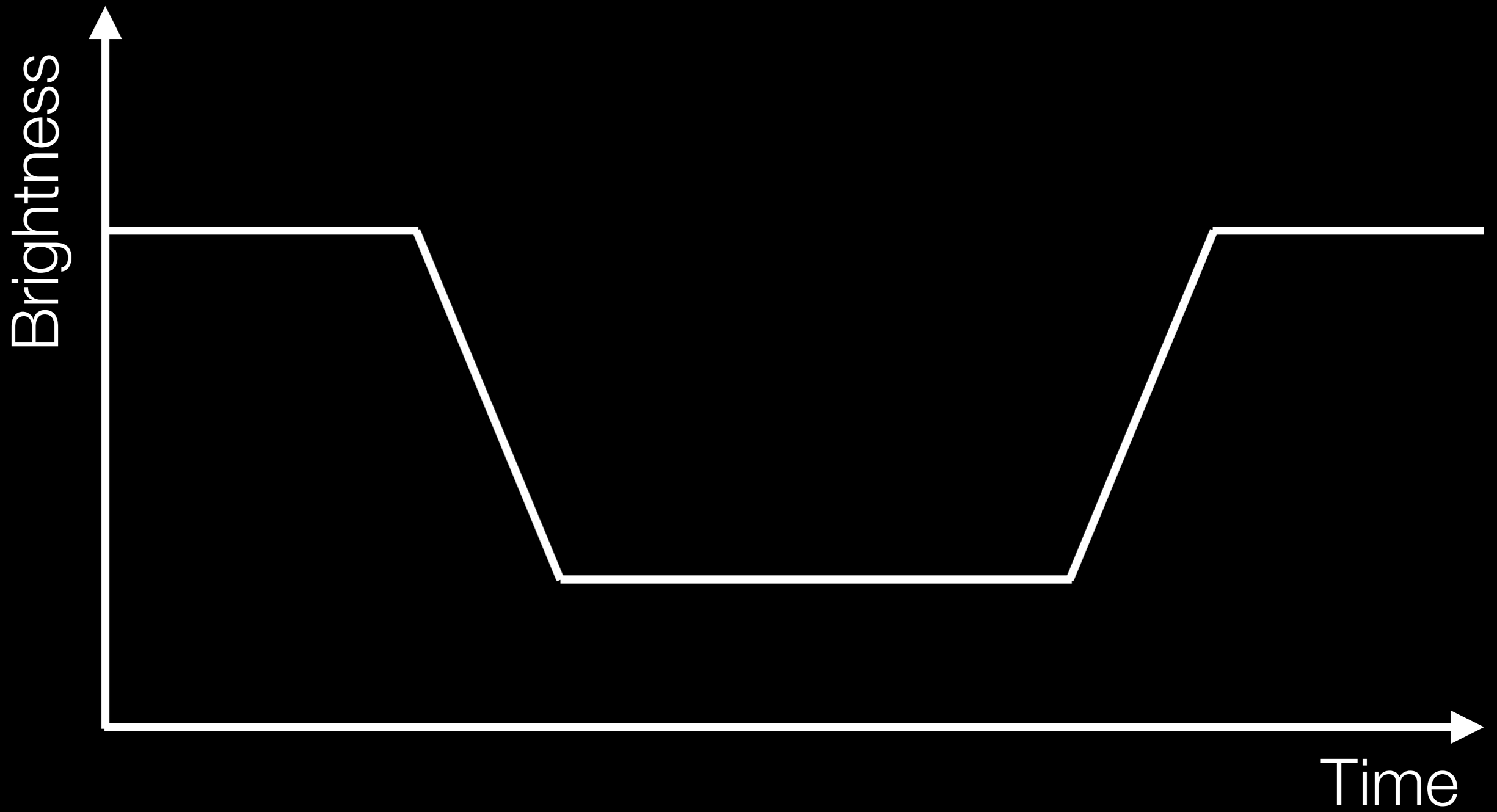
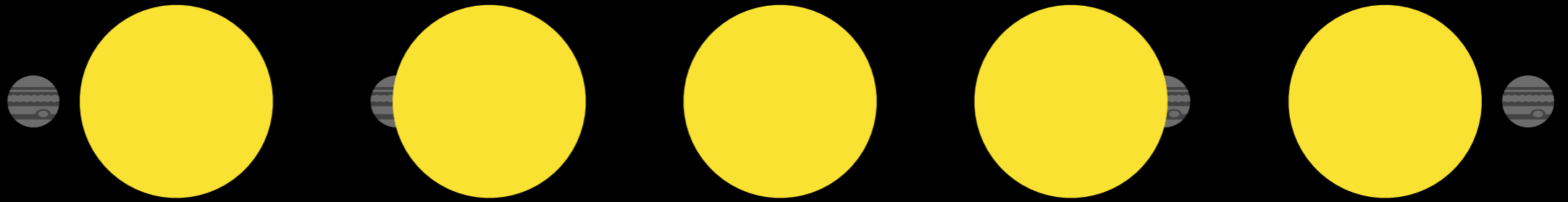
system3 = clouds

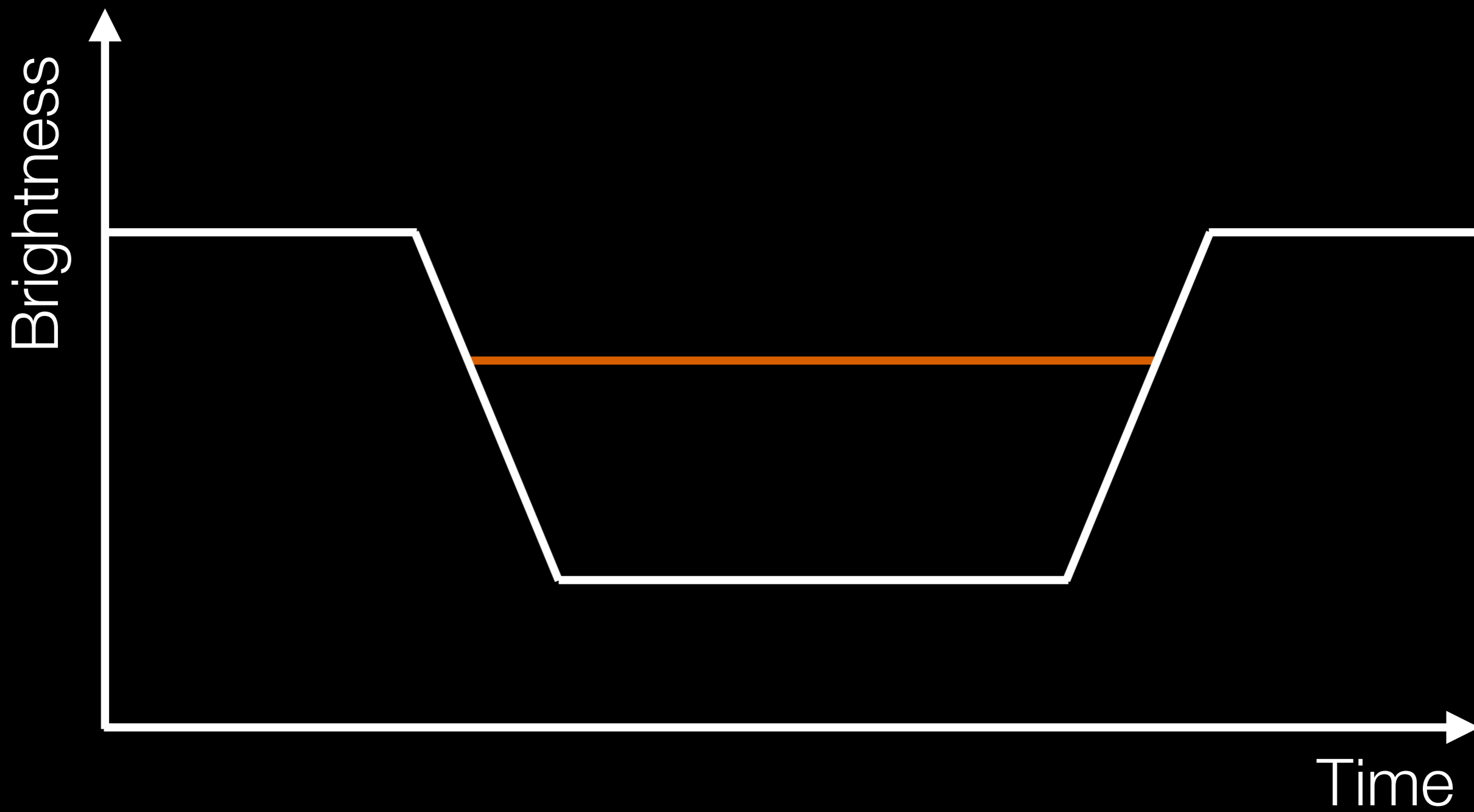
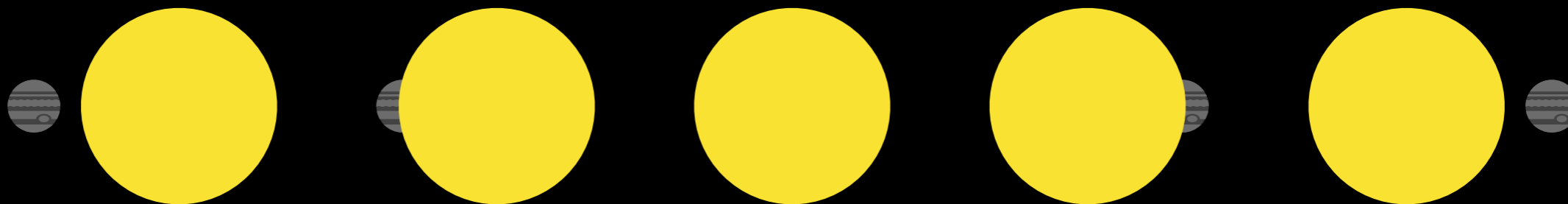
system7 = rotating star

system10 = stellar flares

system12 = binary star







What exoplanets are

How you find them

Wobbles - radial velocities

Winks - transits

How the type of planet changes the signal you see

Things that cause transits but aren't planets

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