

# THE GREAT AMERICAN SOLAR ECLIPSE



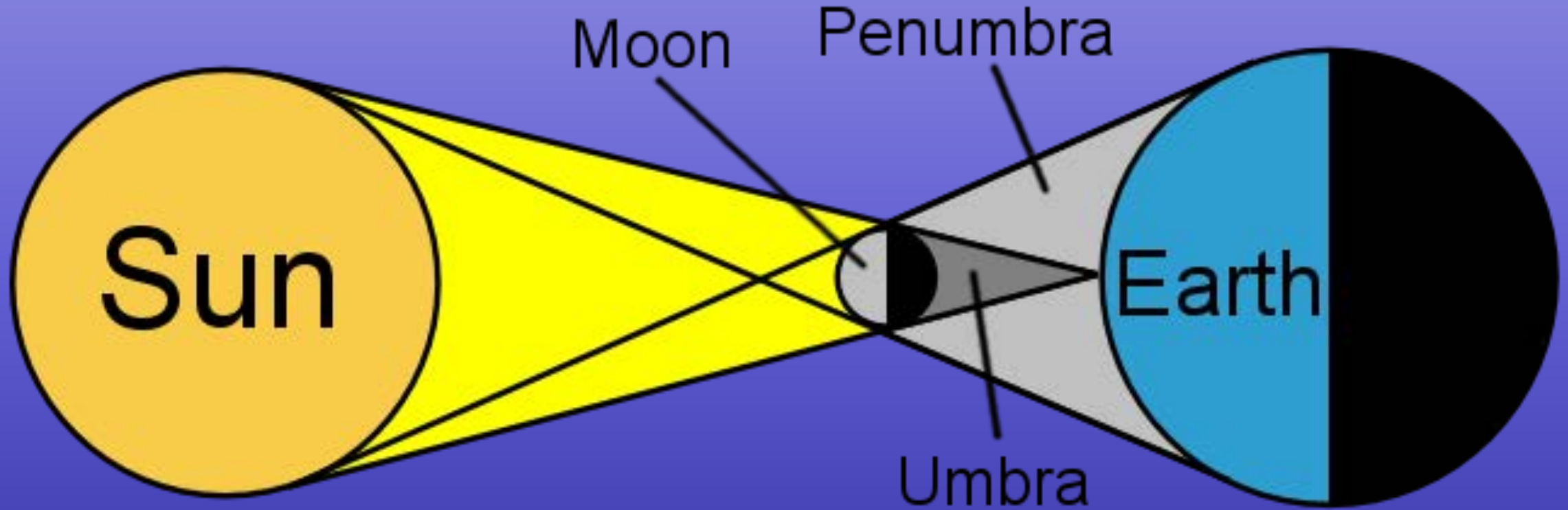
## DOUBLE-HEADER

Annular solar eclipse  
October 14, 2023

Total solar eclipse  
April 8, 2024



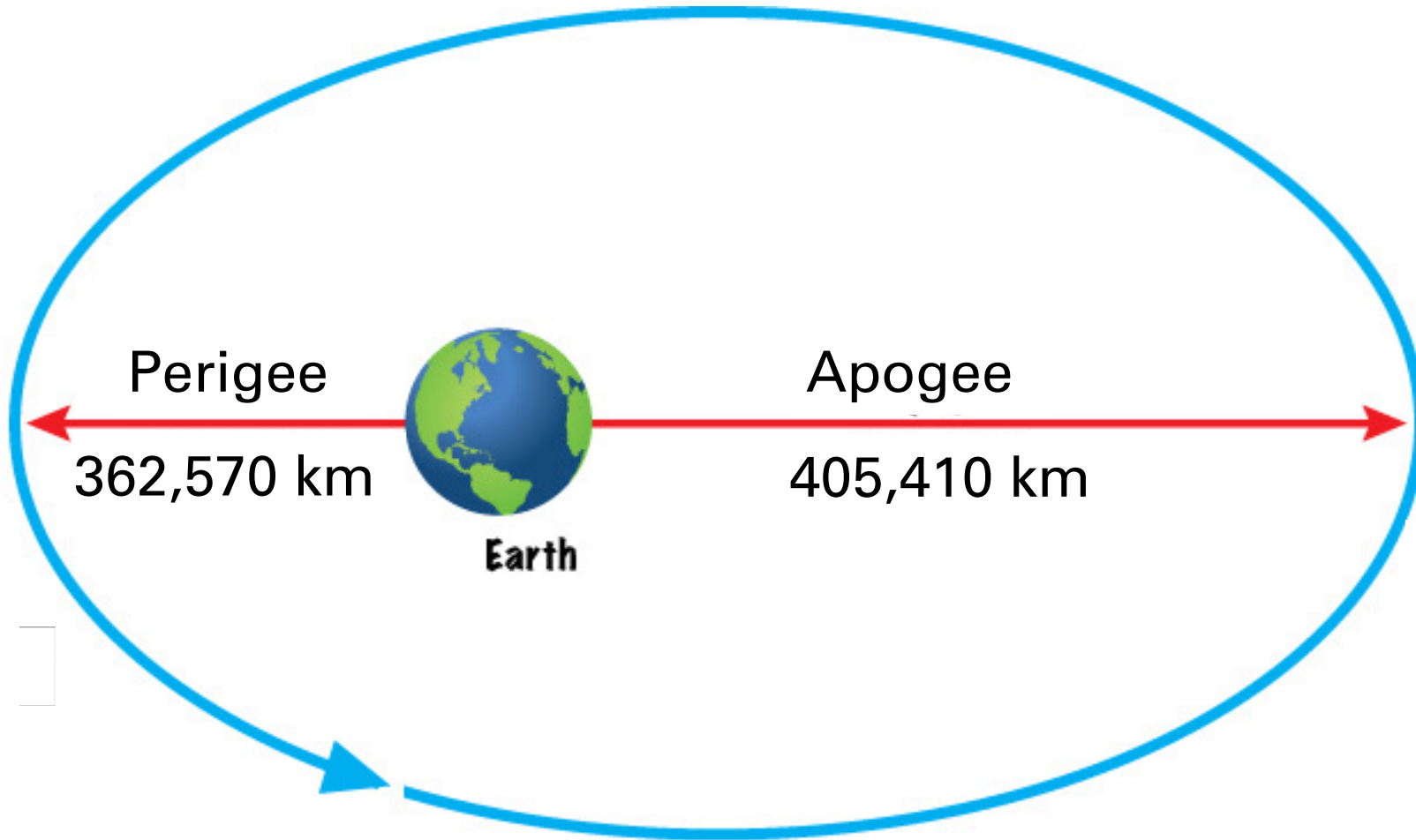
Solar eclipses occur when the Moon gets between the Sun and the Earth



Although the moon orbits the earth ~once per month, an alignment like this only occurs about twice a year

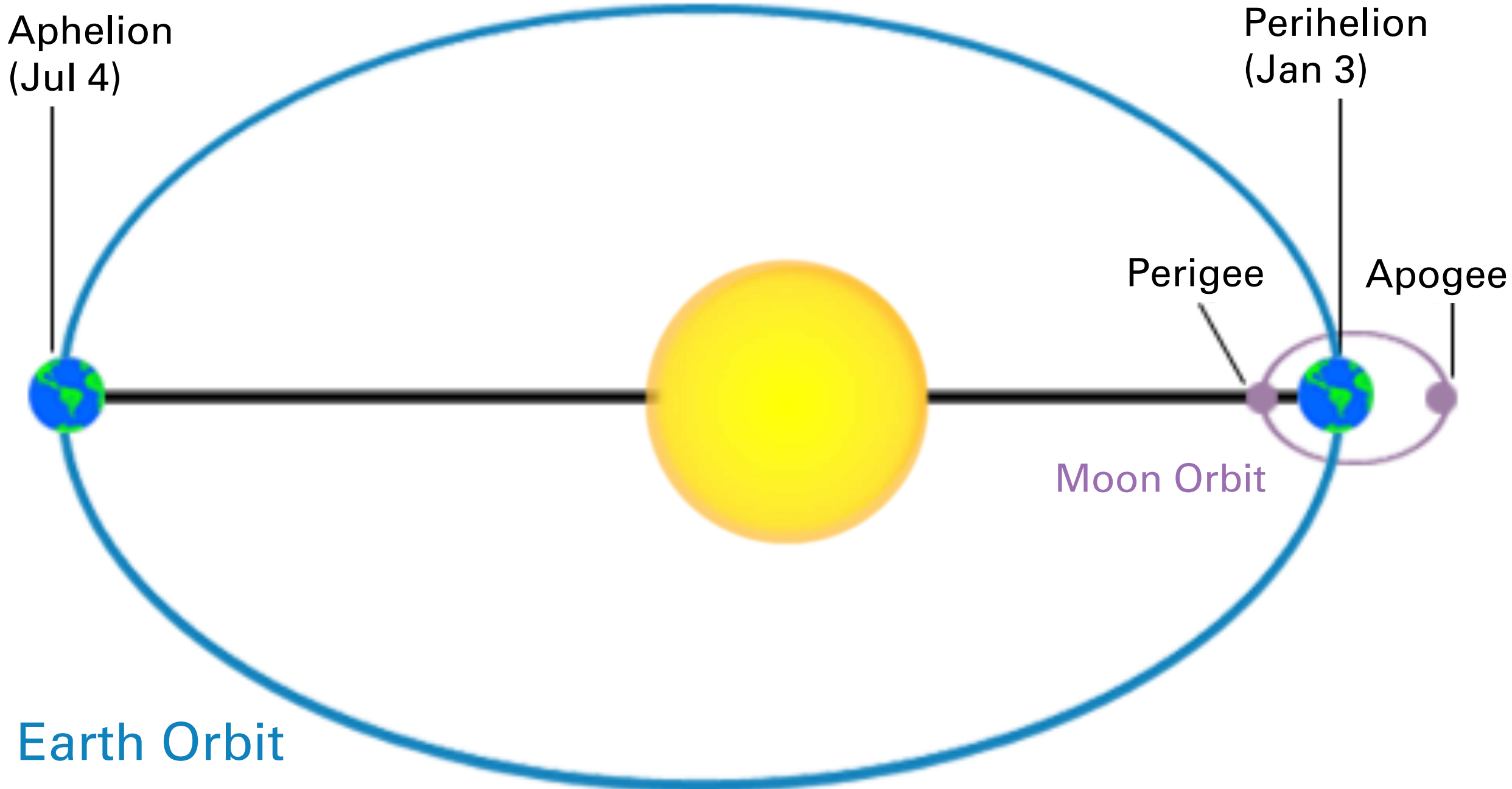


At perigee, the Moon is closer to the Earth and looks slightly larger



At apogee, the Moon is farther from the Earth and looks slightly smaller

Moon's Orbit is elliptical (greatly exaggerated here)



Aphelion  
(Jul 4)

Perihelion  
(Jan 3)

Perigee

Apogee

Moon Orbit

Earth Orbit



**Annular Eclipse: 129 days**

**Total Eclipse: 306 days!**

### AMERICAN SOLAR ECLIPSES

- TOTAL SOLAR ECLIPSE OF 2017 AUGUST 21
- ANNULAR SOLAR ECLIPSE OF 2021 JUNE 10
- ANNULAR SOLAR ECLIPSE OF 2023 OCTOBER 14
- TOTAL SOLAR ECLIPSE OF 2024 APRIL 8





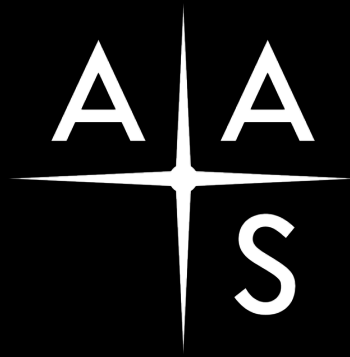
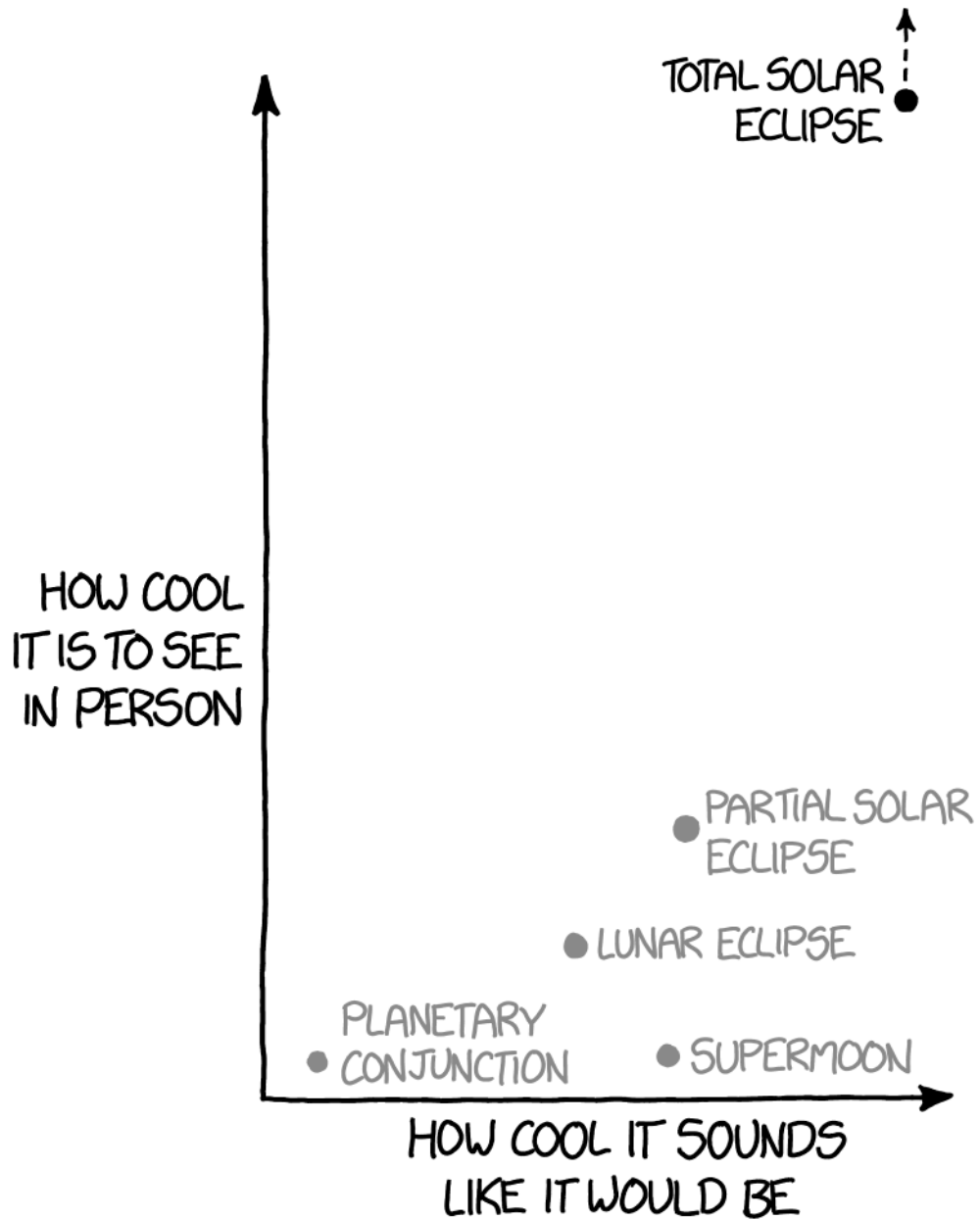
# Annular eclipses



# Total Solar Eclipse as seen from Exmouth, Western Australia, April 20<sup>th</sup> 2023.



CREDIT: Alson Wong



AMERICAN  
ASTRONOMICAL  
SOCIETY

<https://eclipse.aas.org/>



Experience *THE GREAT*  
**NORTH AMERICAN  
SOLAR ECLIPSE**



Nordgren

**April 8, 2024**

AAS AMERICAN  
ASTRONOMICAL  
SOCIETY

**eclipse.aas.org**







KEEP YOUR PADDLE WET  
**LOGBOAT**  
BREWING CO.  
BLACK ALE  
ALL OR NONE  
Brewed in and bottled conditions for  
the EQUINOX of March 21, 2017

**LOGBOAT**  
BREWING CO.  
BLACK ALE  
ALL OR NONE

**LOGBOAT**  
BREWING CO.  
BLACK ALE  
ALL OR NONE

**LOGBOAT BREWING**  
CO.  
MOON  
SPECK  
BLACK  
ALE

**LOGBOAT BREWING**  
CO.  
MOON  
SPECK  
BLACK  
ALE

**LOGBOAT BREWING CO.**  
MOON  
SPECK  
BLACK  
ALE



