

# Astronomy Is Exciting

Robert Vanderbei

April 24, 2025

Take Your Child To Work Day

<https://vanderbei.princeton.edu>



Full Moon

June 14, 2022



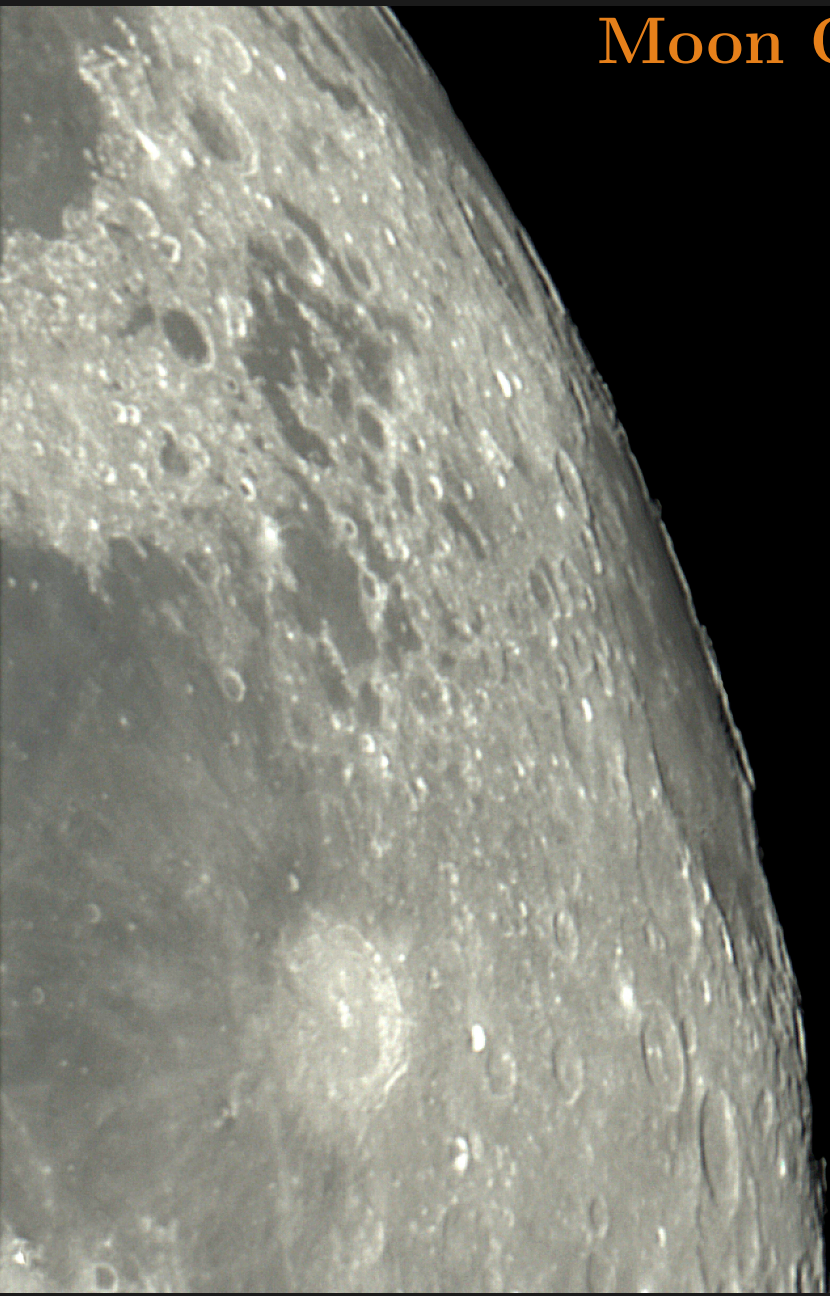
# Crescent Moon

4:07pm Nov. 5, 2021



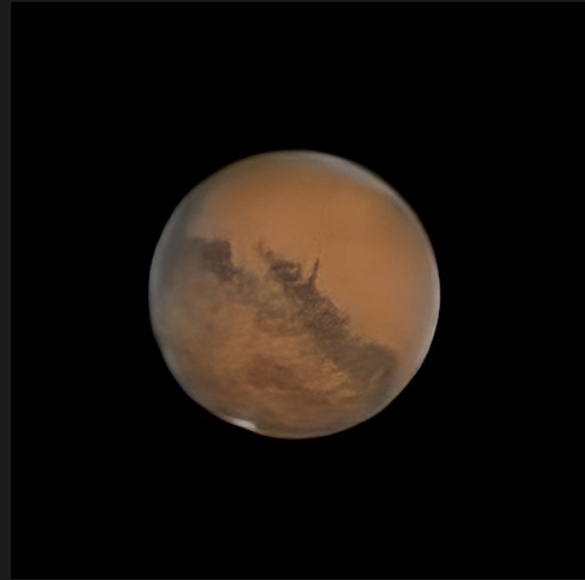
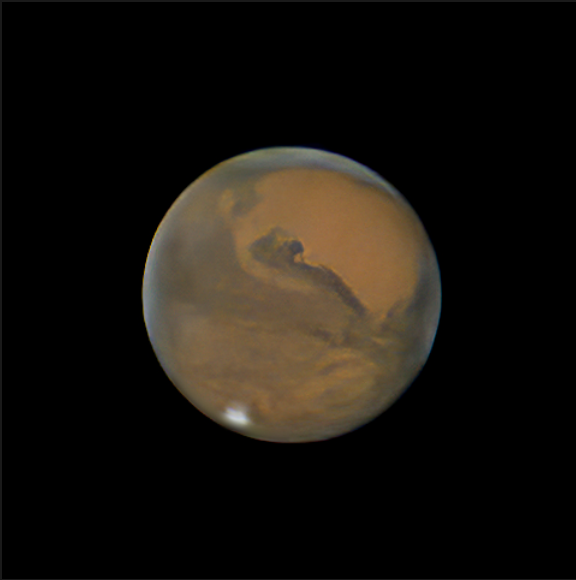
# Moon Occulted Mars

January 13, 2025



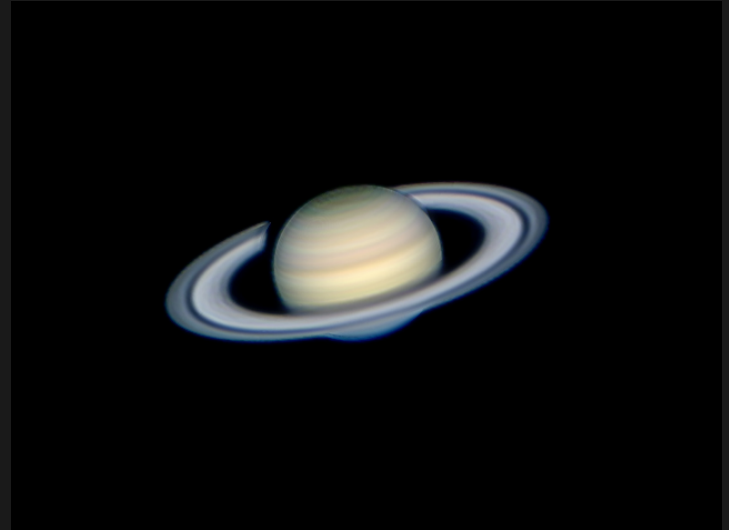
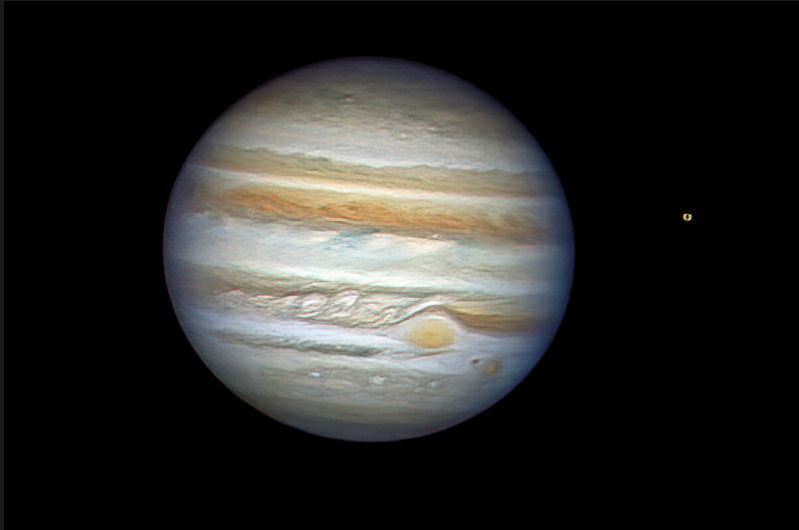
# Mars

Oct. 6 and 18, 2020



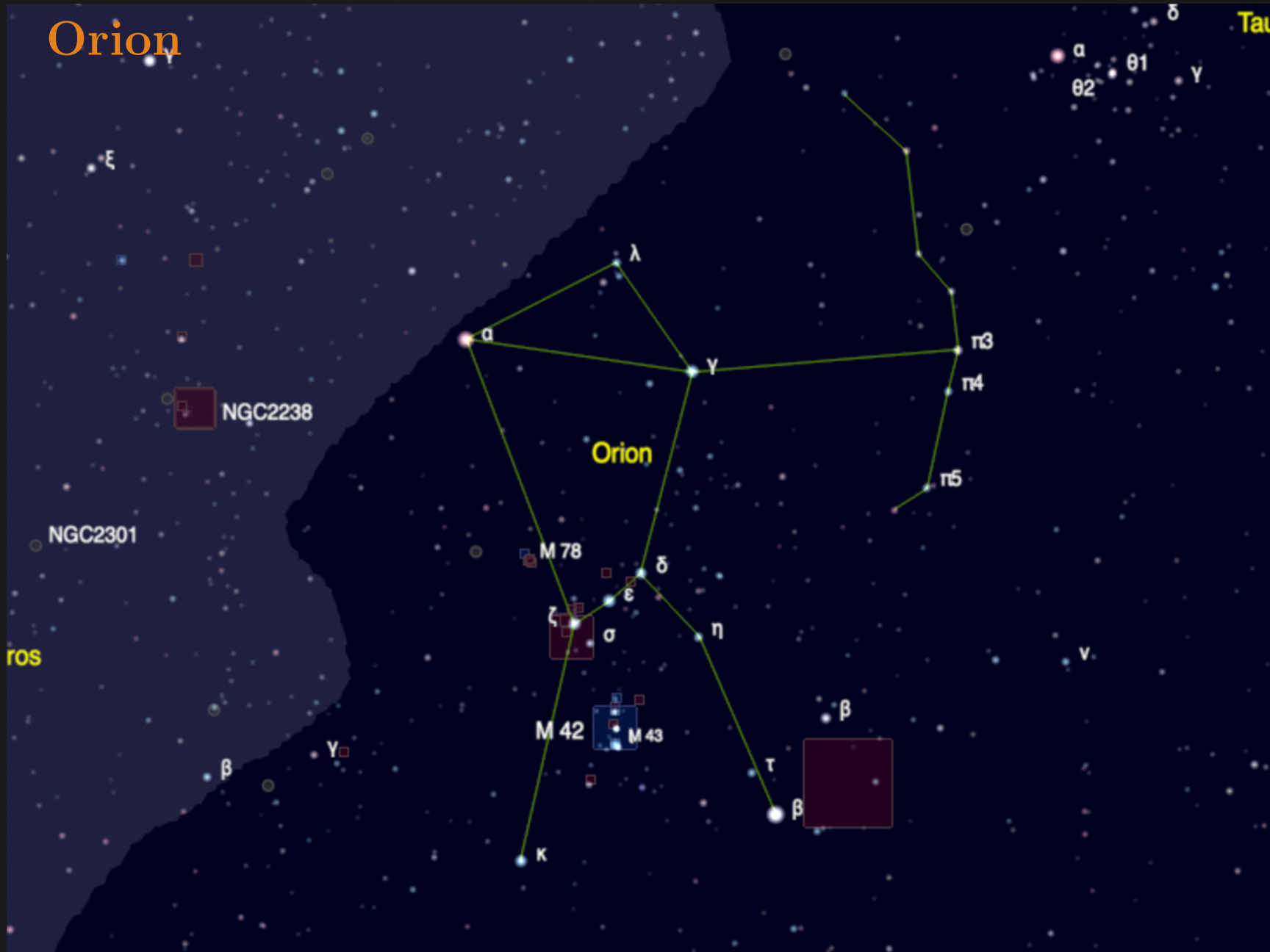
# Jupiter and Saturn

32 and 67 min



# Looking Out Beyond Our Solar System

# Orion



Tau

Orion

NGC2238

NGC2301

M 78

M 42

M 43

Lep

Aur

# Orion Nebula

Star Forming Region

1,344 ly

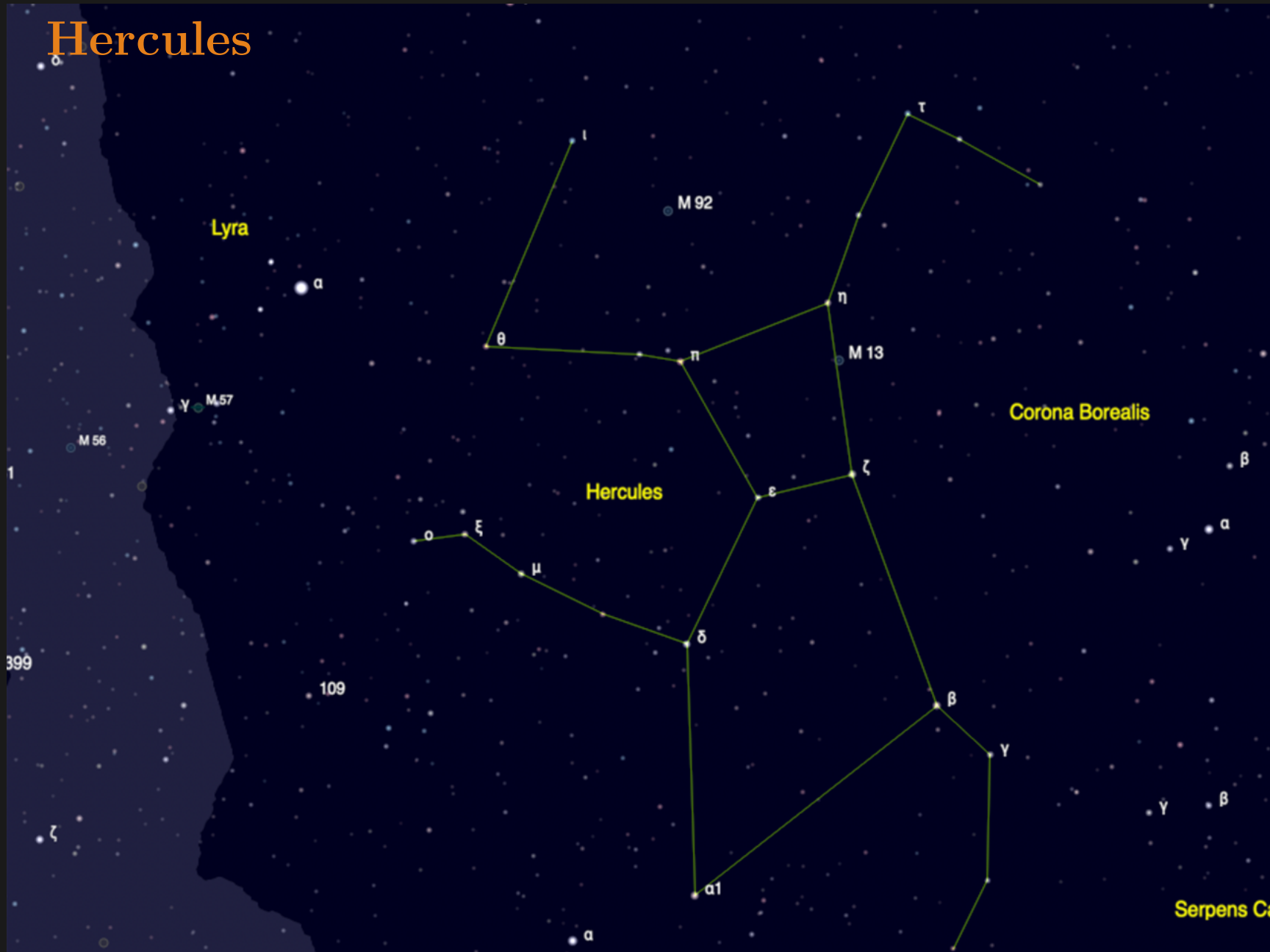


# Horsehead and Flame Nebulas

1,500 ly



# Hercules

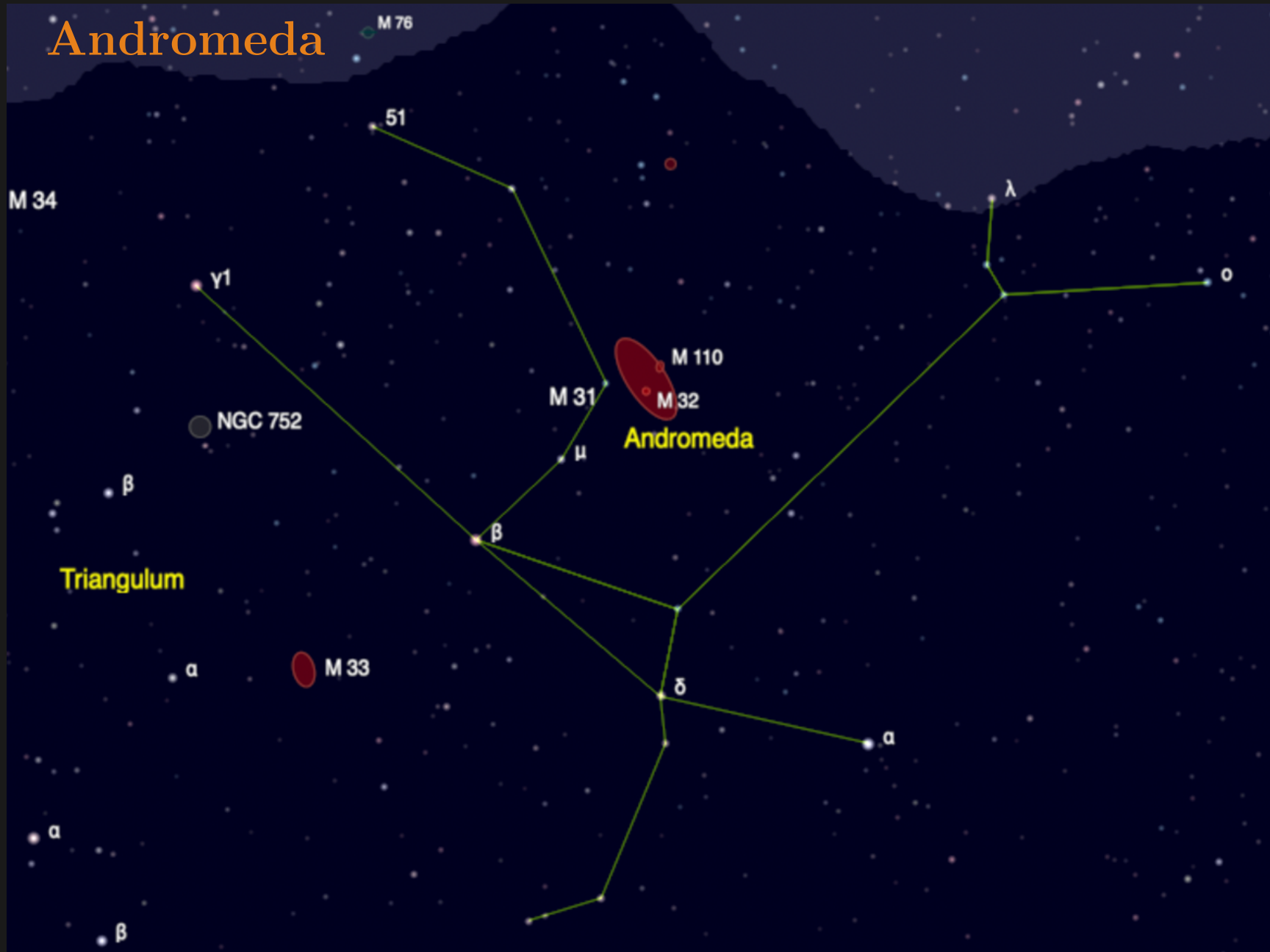


# Globular Cluster in Hercules

22,200 ly



# Andromeda



Andromeda

Triangulum

M 76

M 34

NGC 752

M 31

M 110

M 32

M 33

$\alpha$

$\beta$

$\alpha$

$\beta$

$\gamma$

51

$\mu$

$\lambda$

$\omicron$

$\delta$

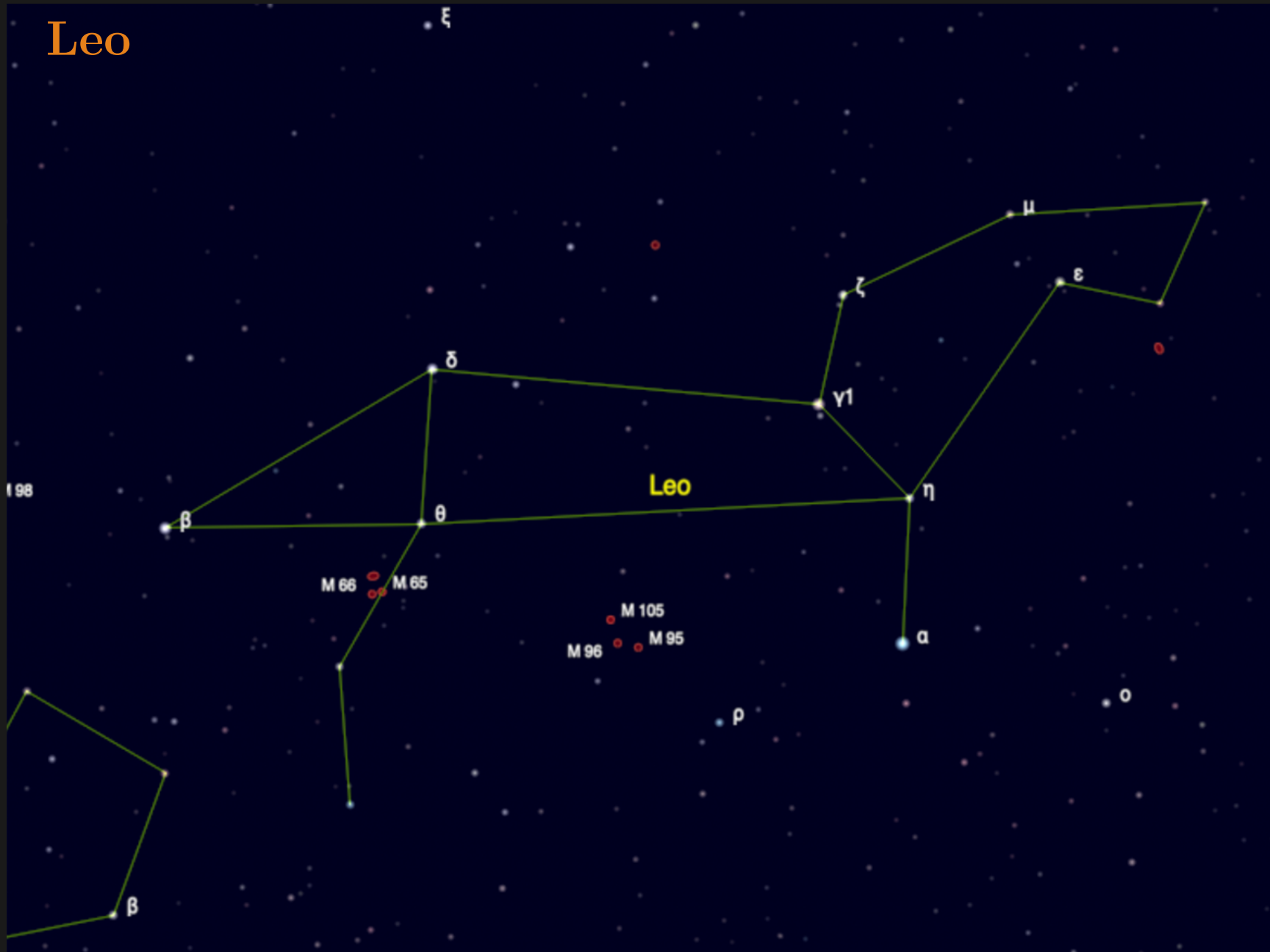
$\alpha$

# The Andromeda Galaxy

2,450,000 ly



# Leo



# The Leo Trio

32,000,000 ly



More Photos...

# Dumbbell Nebula

Dying Star

1,360 ly



# Ring Nebula

2,567 ly



# Jellyfish Nebula

5,000 ly



# Eagle Nebula

5,700 ly



# Crab Nebula

Oct. 27, 2006

6,500 ly



# Bubble Nebula

$9,100 \pm 2,000$  ly



# M81 and M82

12,000,000 ly



# The Whirlpool Galaxy

31,000,000 ly



# Comet 103P / Double Cluster

1.2 min / 7,460 and 7,640 ly

