



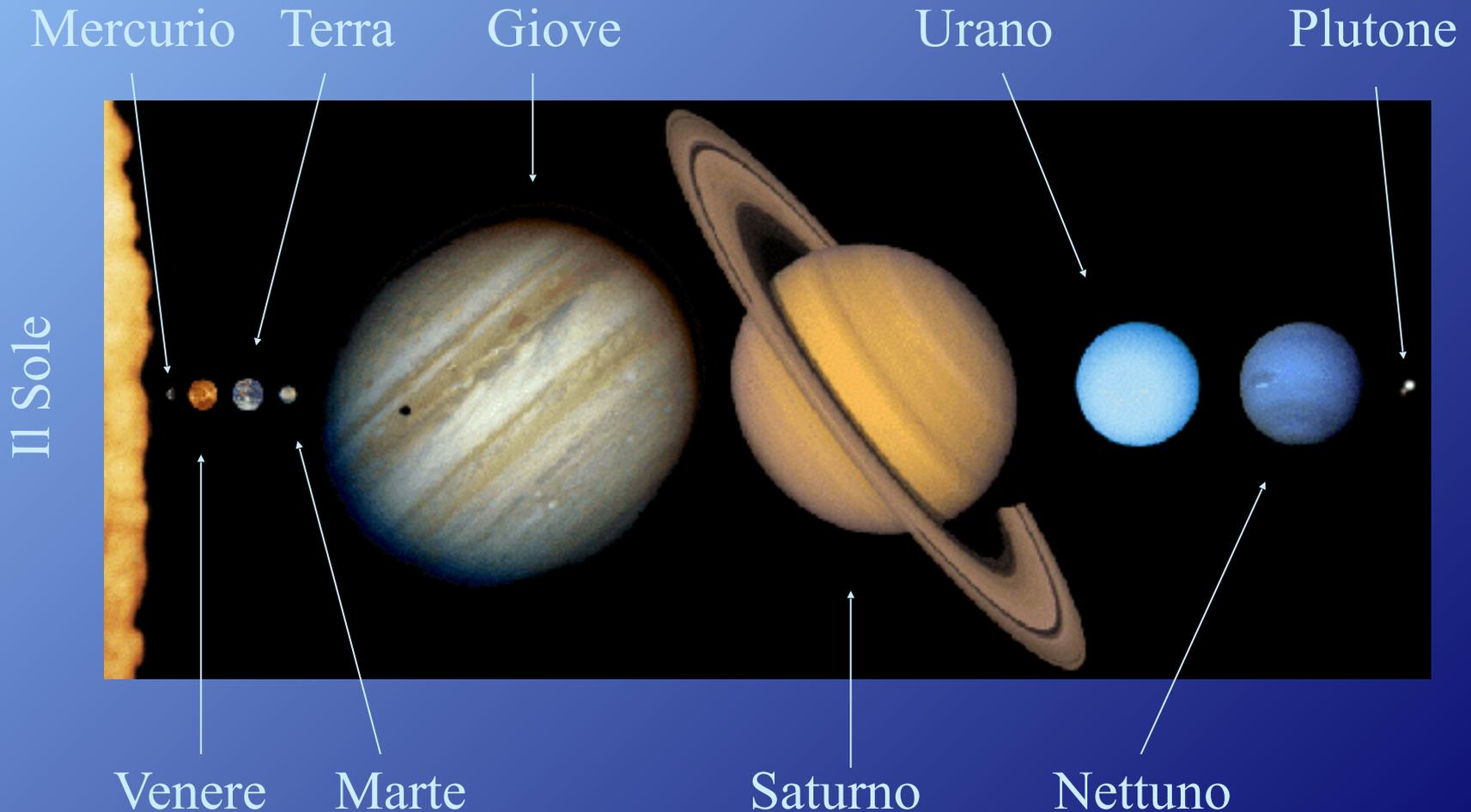
# Viaggio nel sistema solare

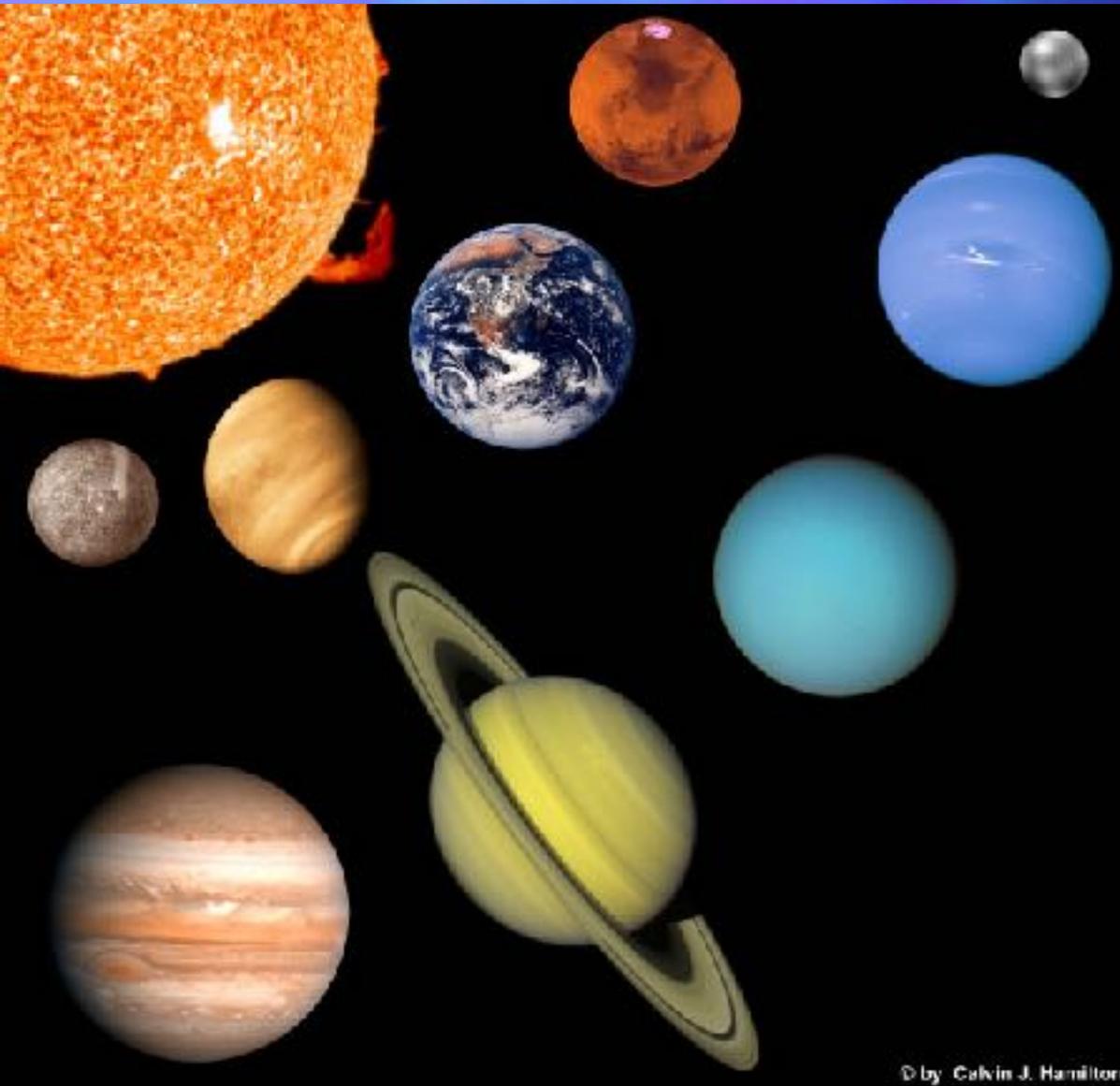
Stefano Covino

INAF / Osservatorio Astronomico di Brera



# Il sistema solare: il sole più Otto (?) pianeti





© by Calvin J. Hamilton



Cominciamo  
il nostro  
viaggio nel  
sistema  
solare

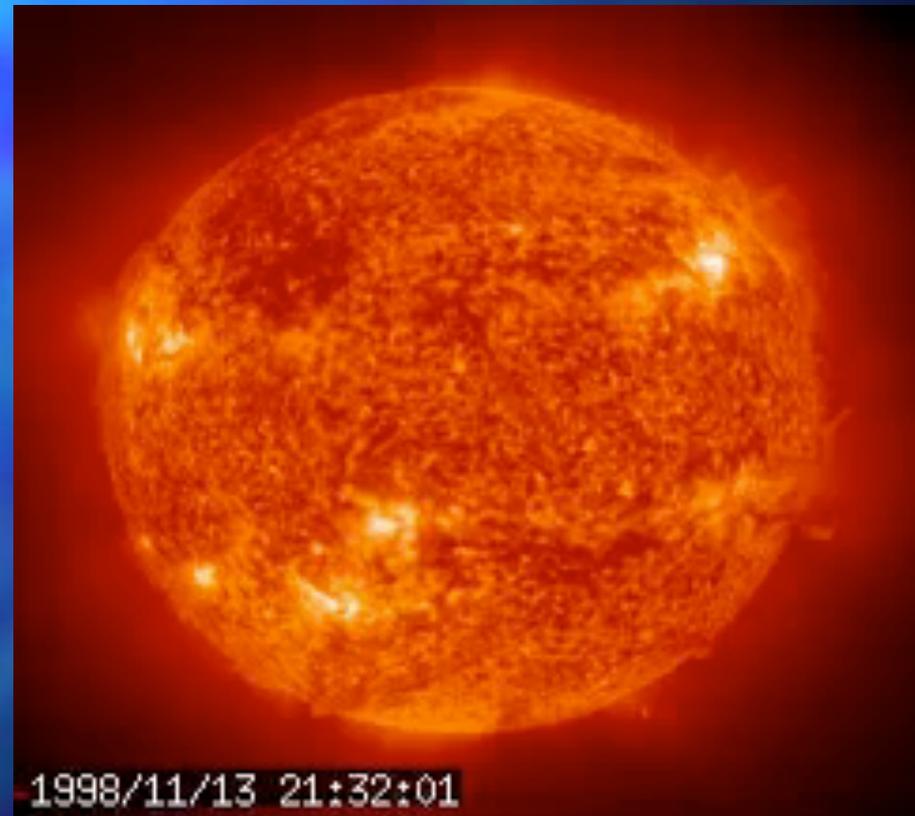
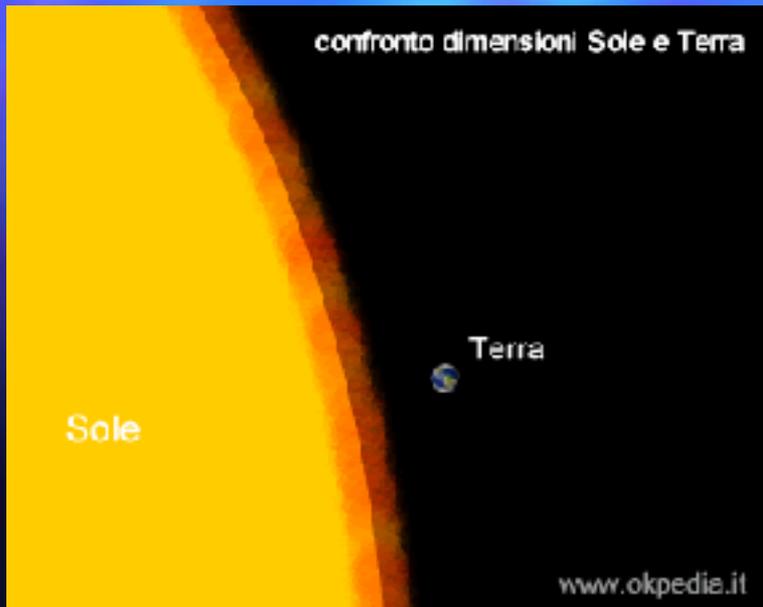


# Il sole

Massa: 333000

Distanza dal sole: 0

Lunghezza anno: 0

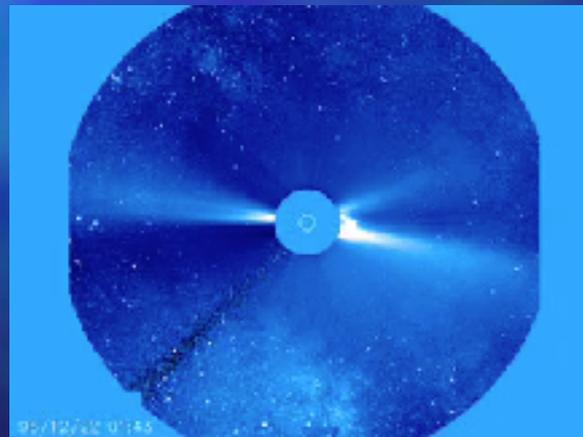
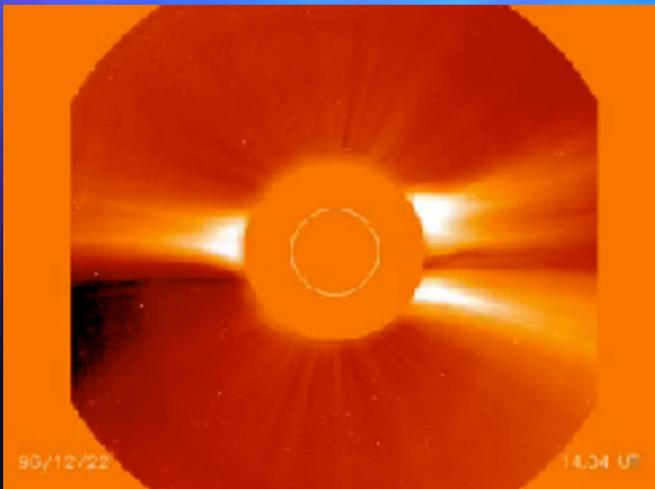
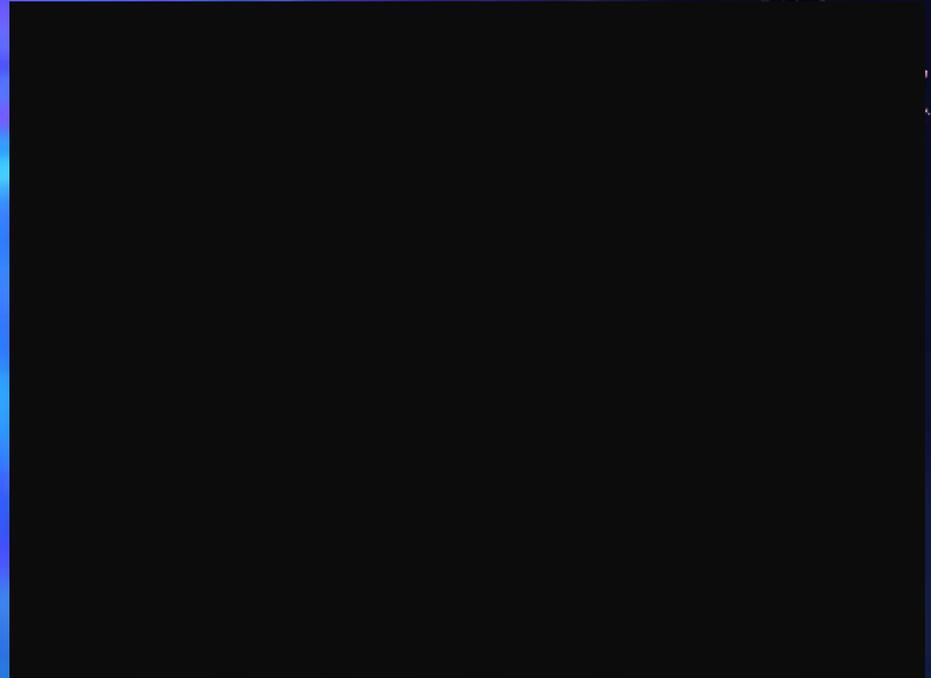


# Il sole

Massa: 333000

Distanza dal sole: 0

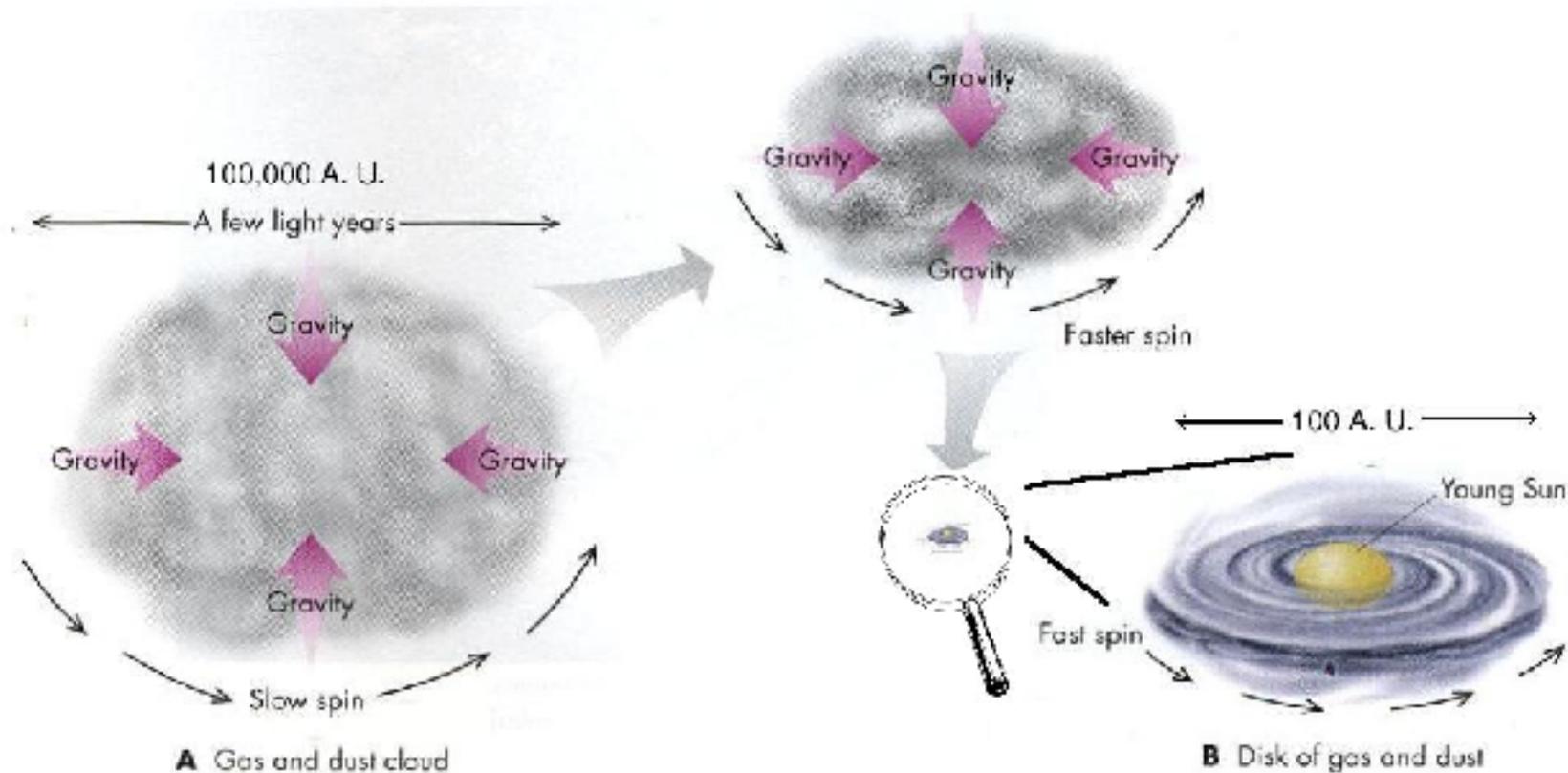
Lunghezza anno: 0





Ma come si  
formano le  
stelle?

# Un processo molto complesso!



# Mercurio



Massa: 6 centesimi

Distanza dal sole: 0.4

Lunghezza anno: 88 g

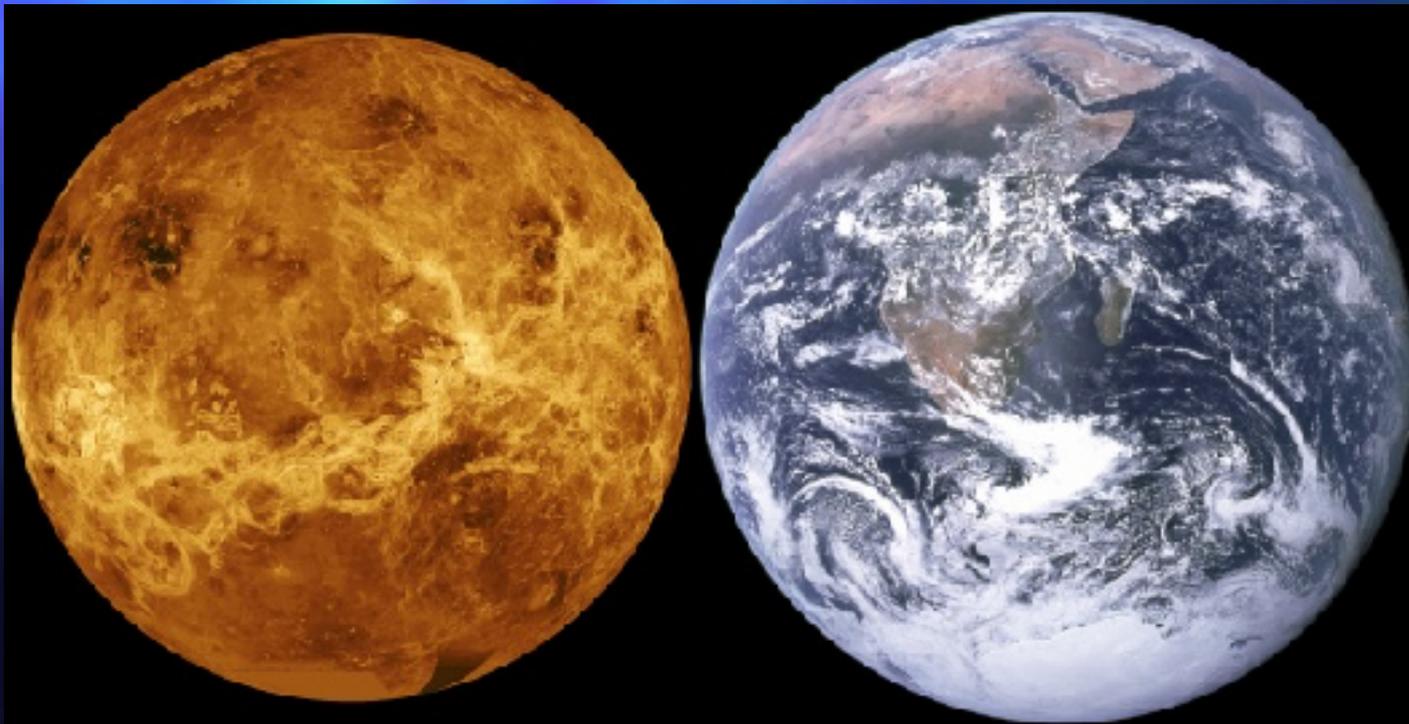


# Venere

Massa: 8 decimi

Distanza dal sole: 0.7

Lunghezza anno: 225 g





# Venere

Massa: 8 decimi

Distanza dal sole: 0.7

Lunghezza anno: 225 g

"Voliamo" su Venere!



# Venere



Atterriamo su Venere!



Venera 13

Venera 14



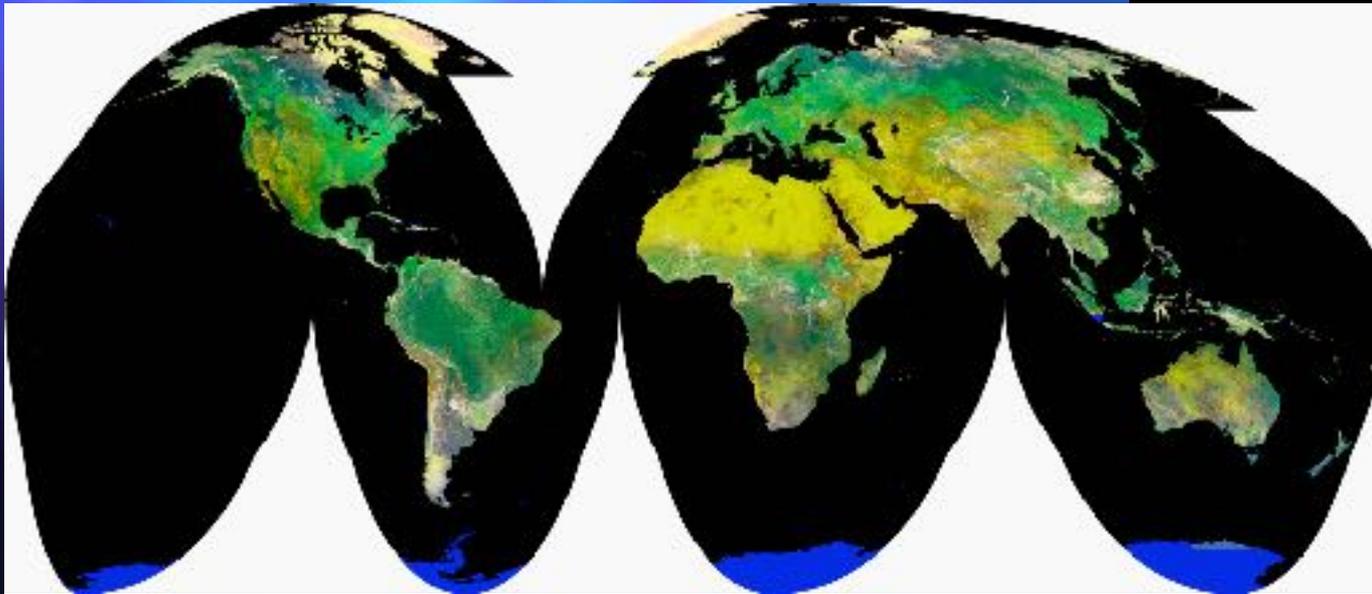
# Terra



Massa: 1

Distanza dal sole: 1

Lunghezza anno: 365.25 g



# Stelle cadenti (meteore)



# Marte



Massa: 1 decimo

Distanza dal sole: 1.5

Lunghezza anno: 687 g





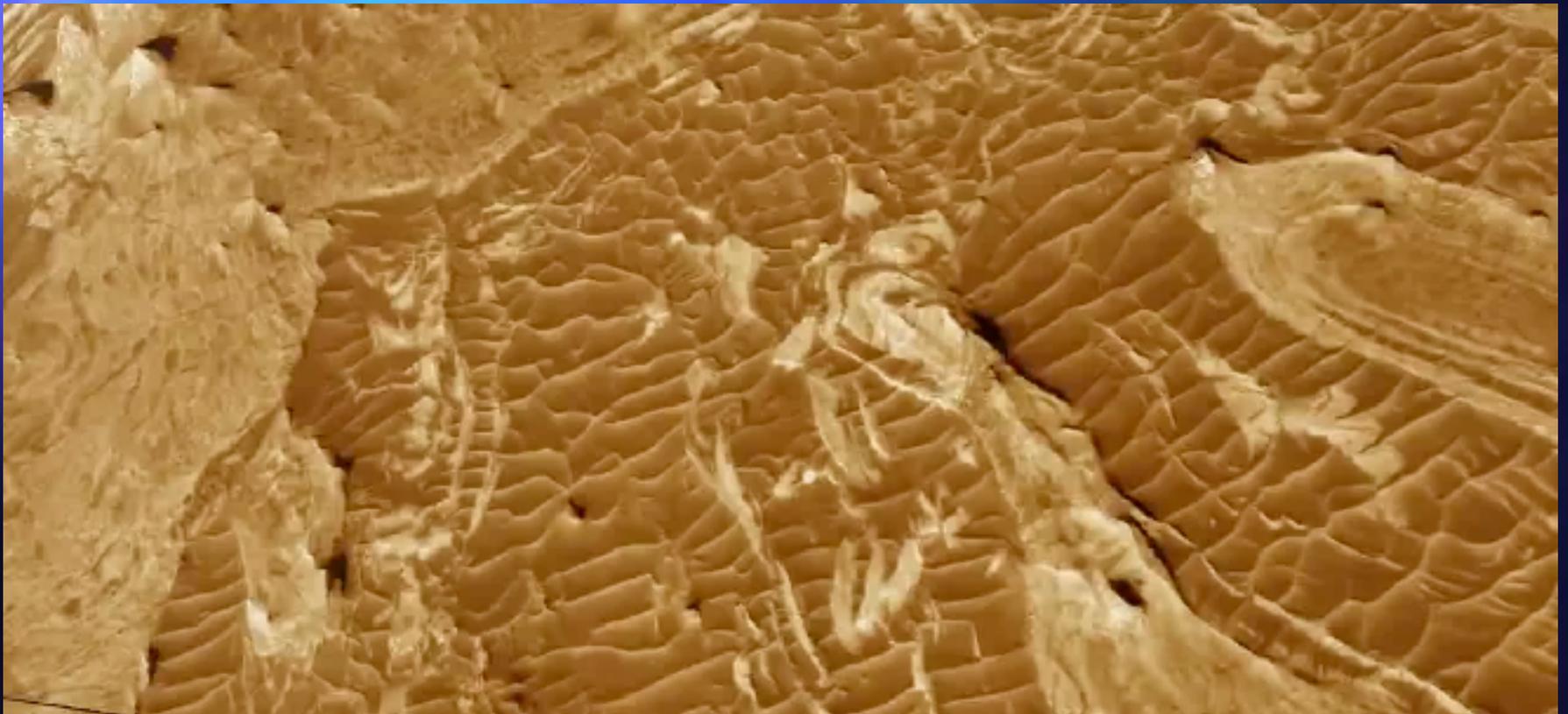
# Marte

Massa: 1 decimo

Distanza dal sole: 1.5

Lunghezza anno: 687 g

"Voliamo" su Marte!



# Marte



Atterriamo su Marte!



# Spirit ed Opportunity su Marte

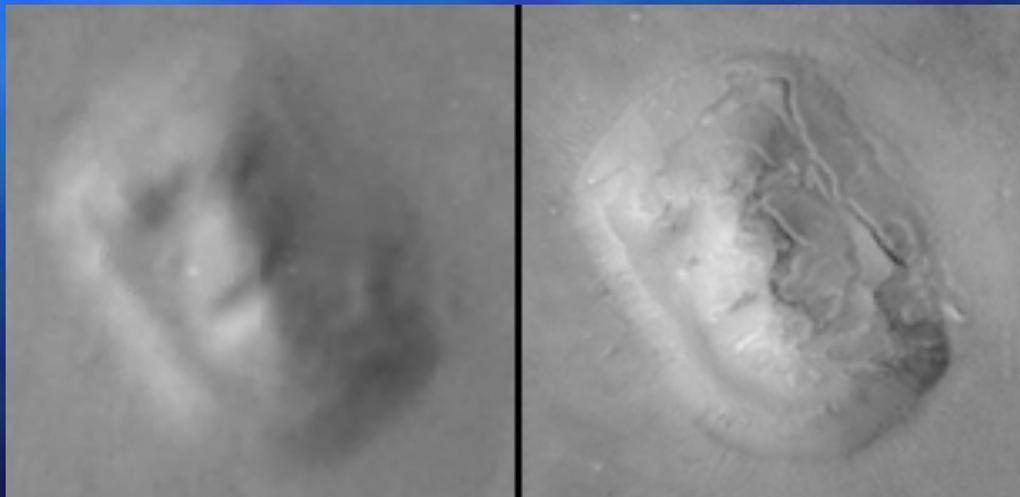
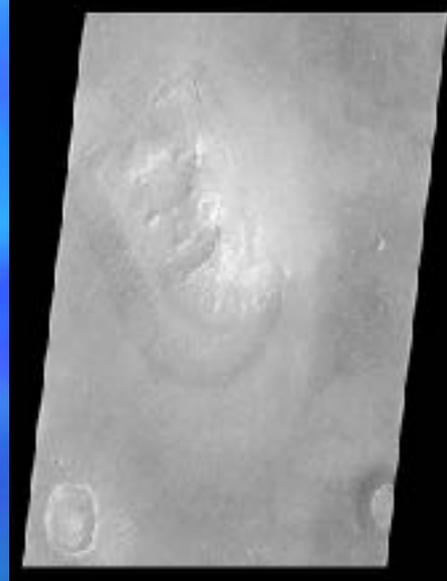
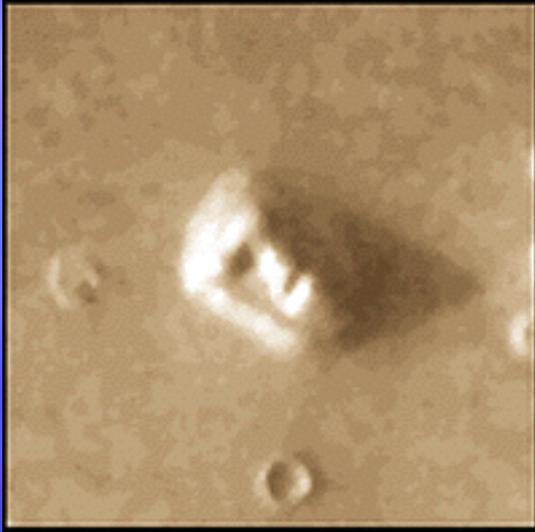
Opportunity  
Maneuvers  
out of  
Sand Trap



# Marte



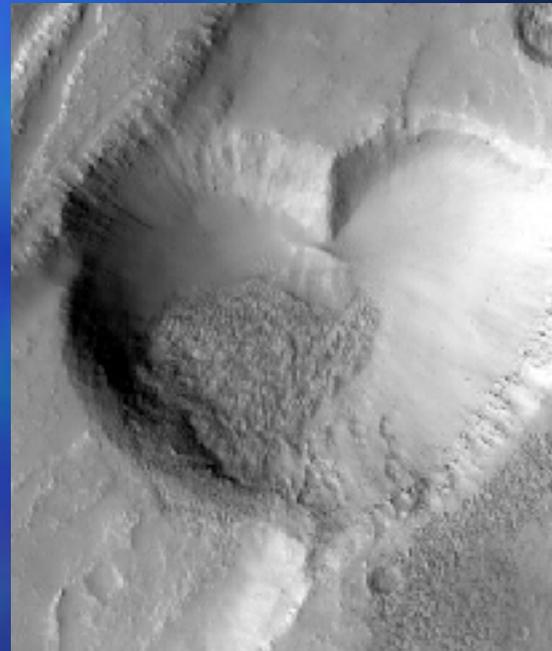
## Figure su Marte??



# Marte



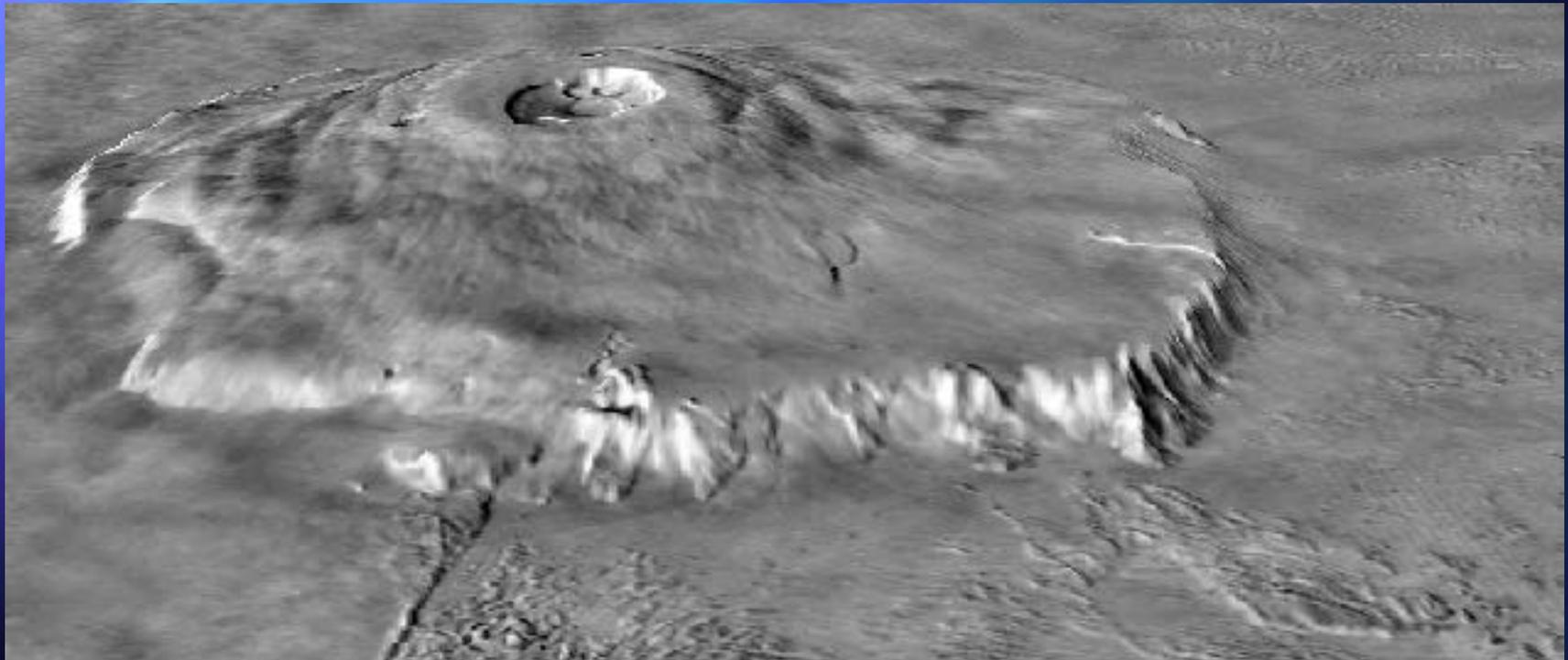
Figure su Marte??



# Marte

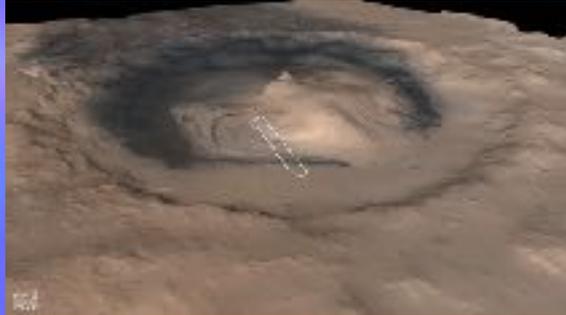


## Olympus Mons

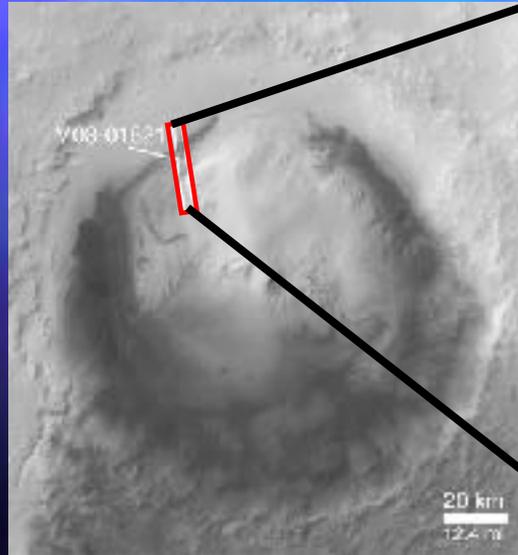


Il più grande vulcano del sistema solare!

# Acqua su Marte?

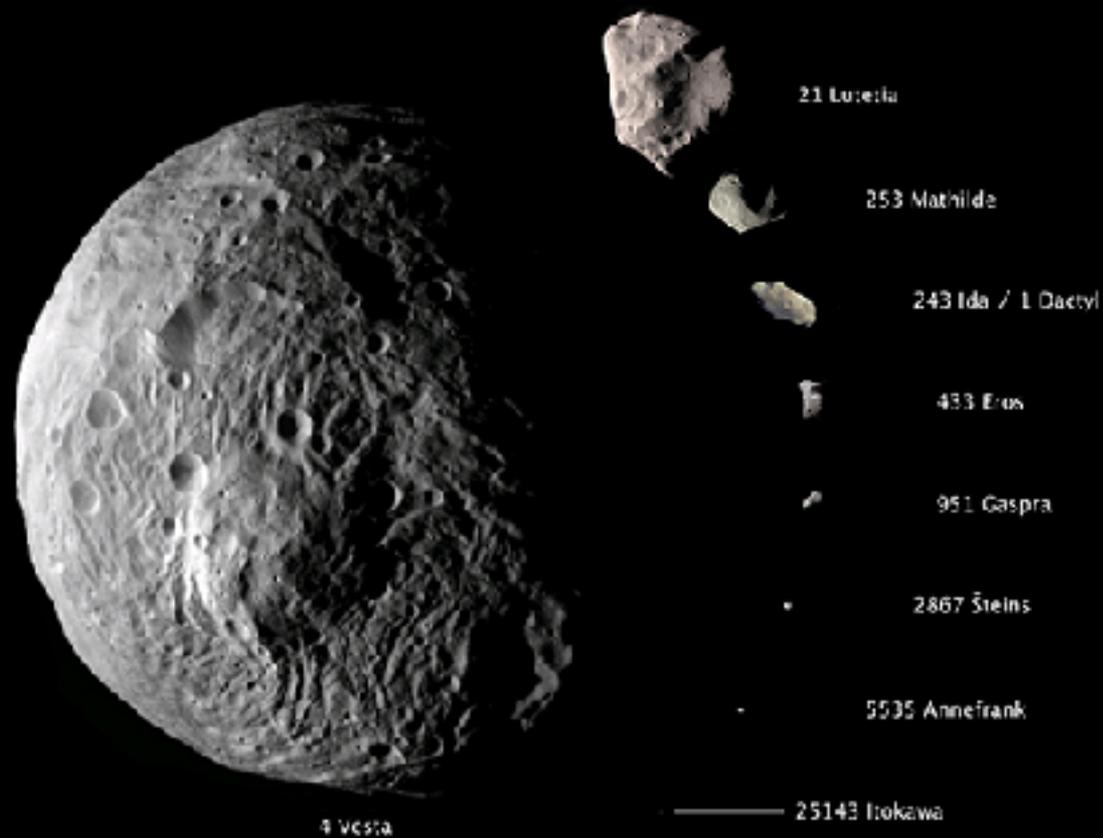


Cratere Gale (170km)



NASA/JPL/MSSS

# Asteroidi



# Asteroidi



Ida

Dactyl



# Giove



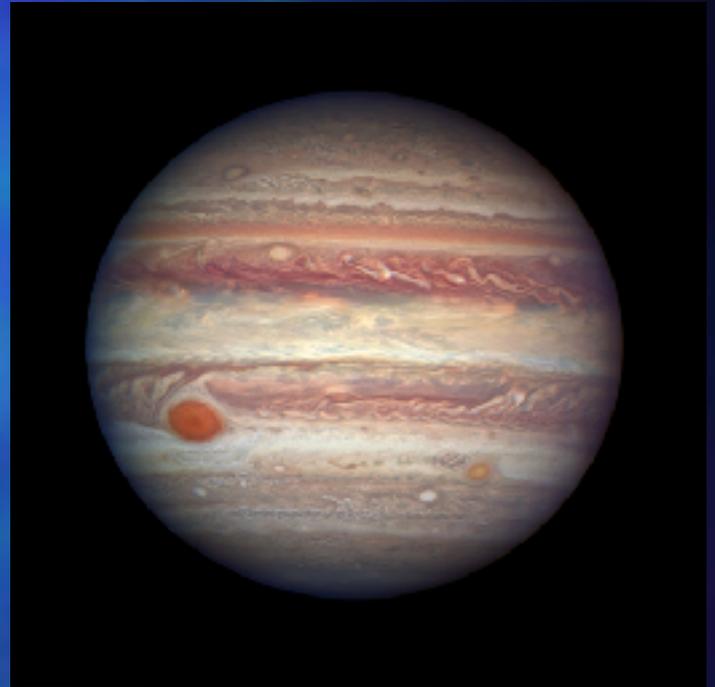
Massa: 320

Distanza dal sole: 5.2

Lunghezza anno: 4332 g



Atmosfera



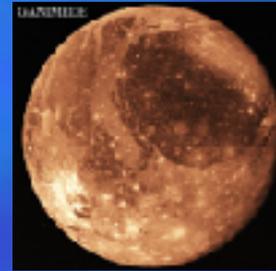
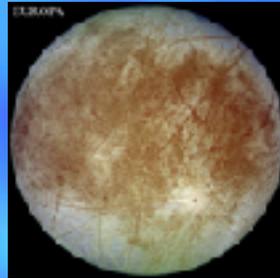
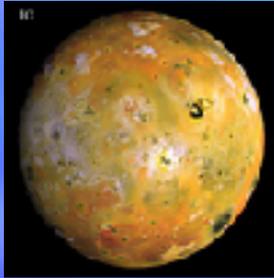
Anelli

# Giove

(e i suoi satelliti)



I Medicei

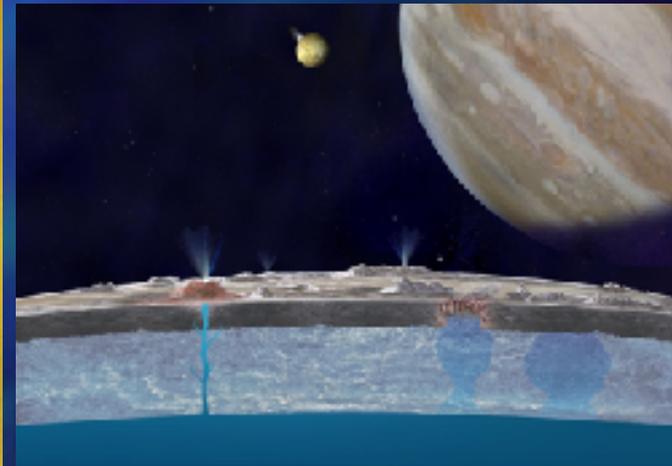
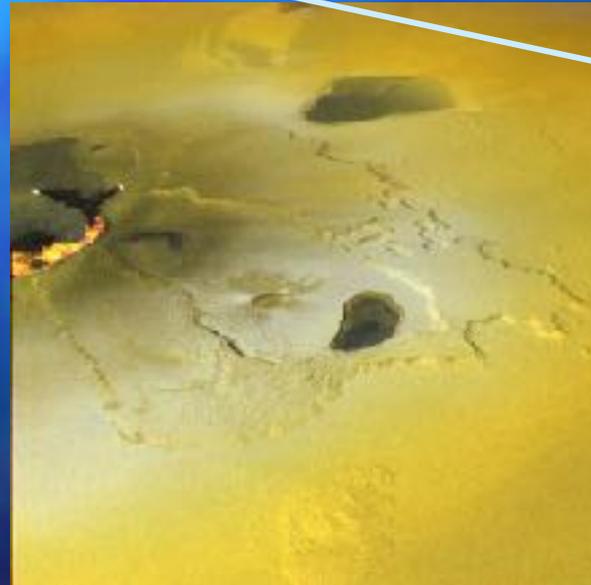
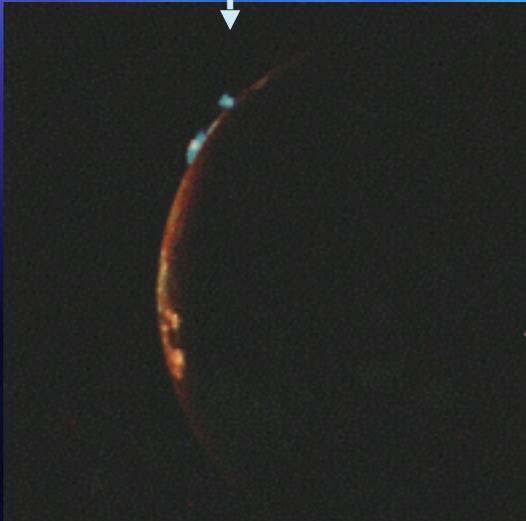


Io

Europa

Ganimede

Callisto



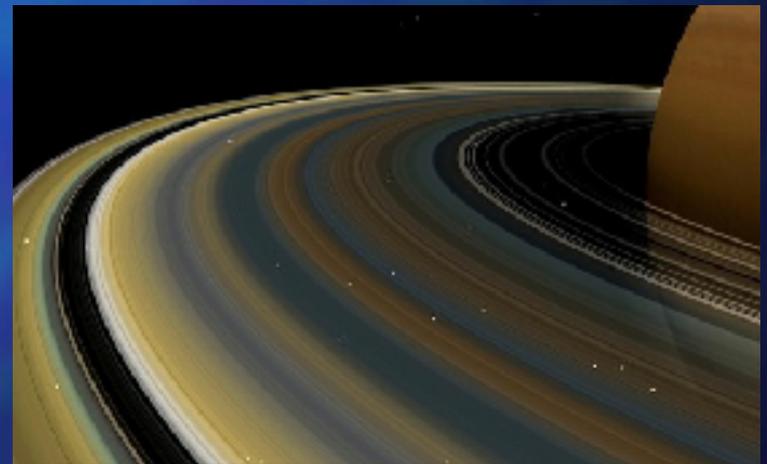
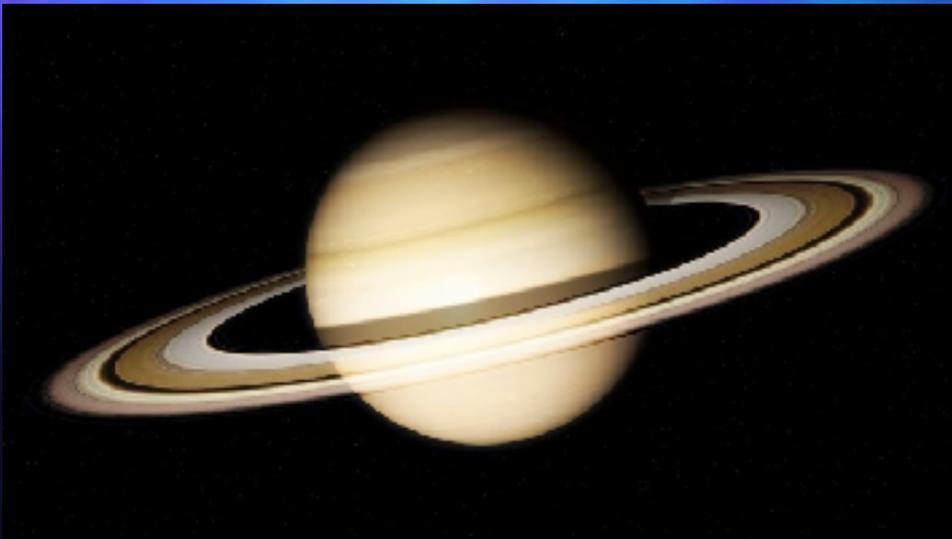
# Saturno



Massa: 95

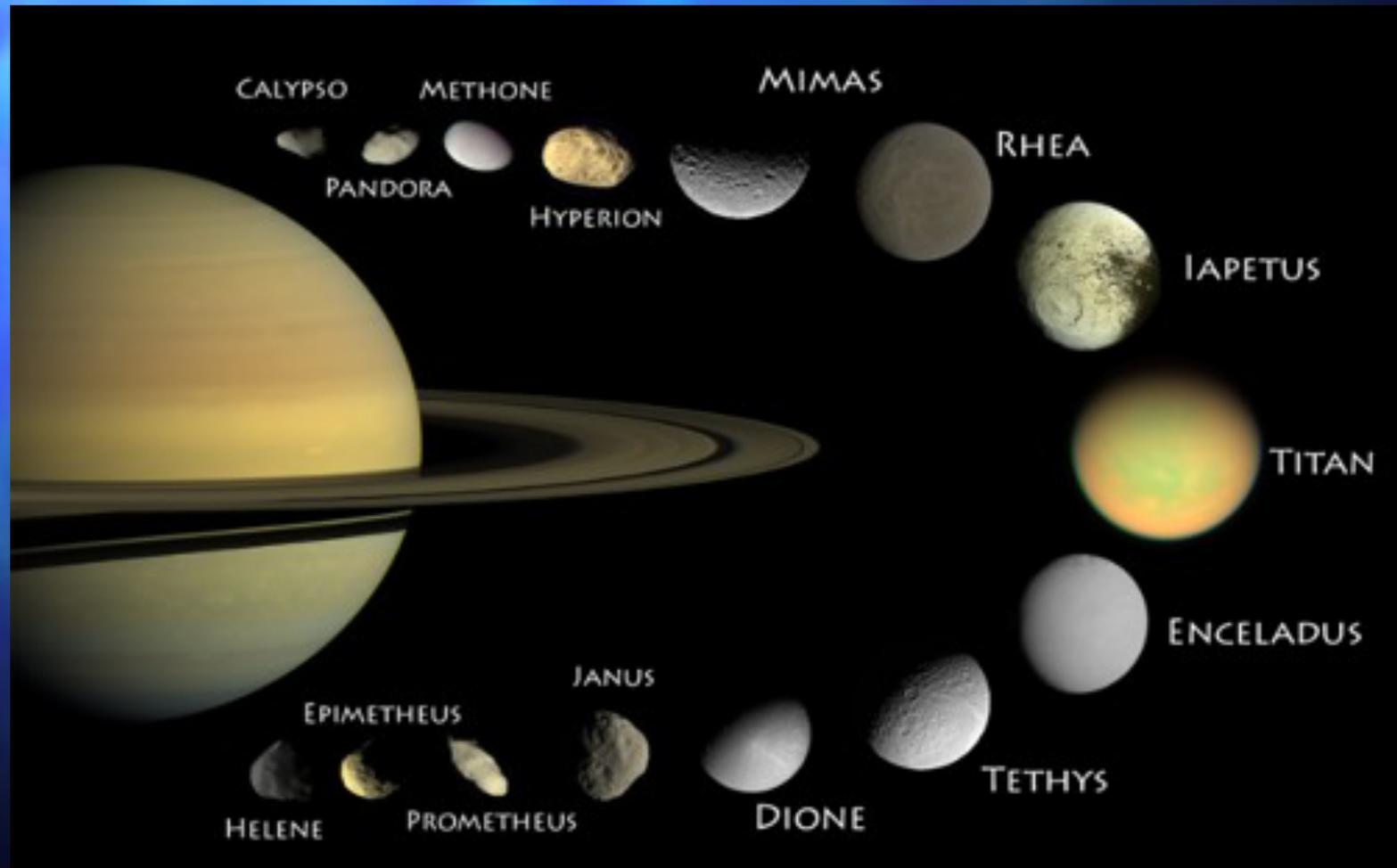
Distanza dal sole: 9.5

Lunghezza anno: 29.5 a

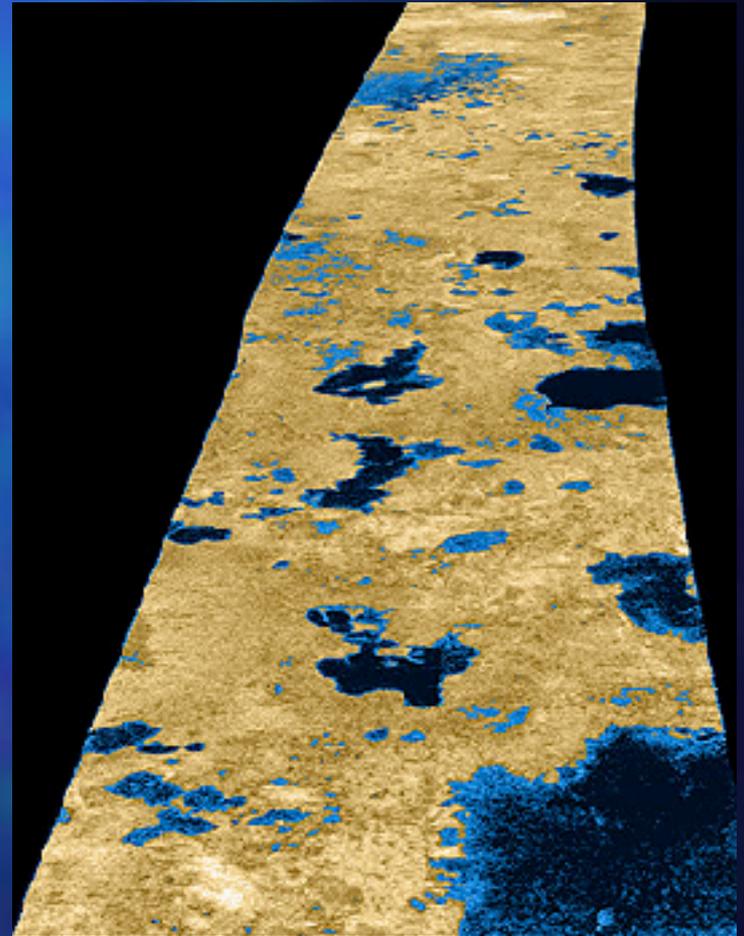
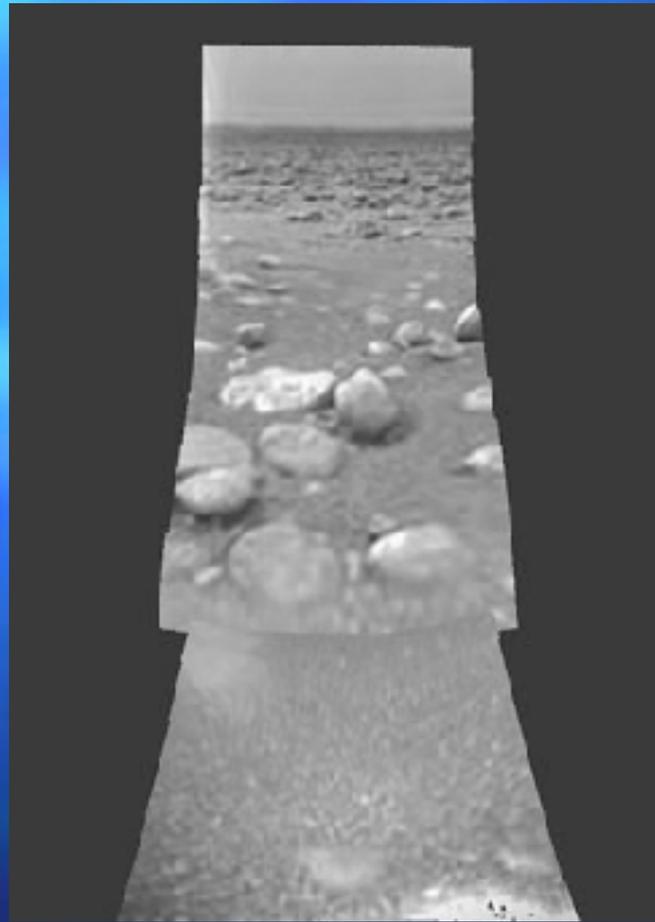
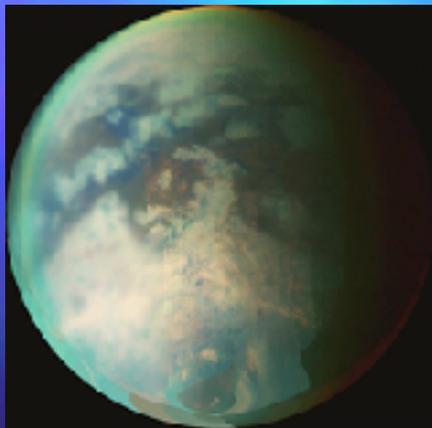


# Saturno

(e i suoi satelliti)



# Titano è stato esplorato dalla sonda Huygens



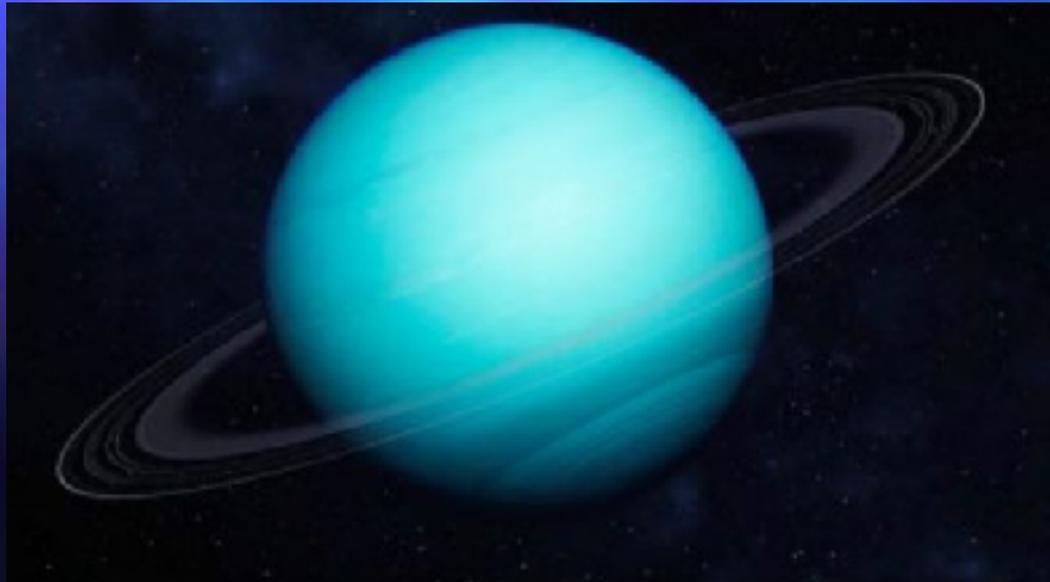
# Urano



Massa: 15

Distanza dal sole: 19.2

Lunghezza anno: 84 a

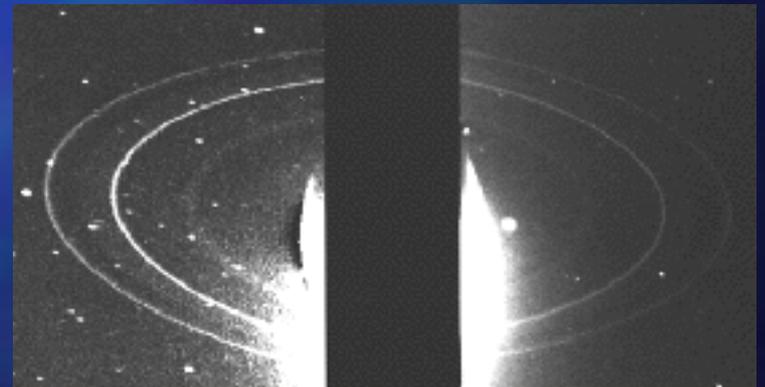
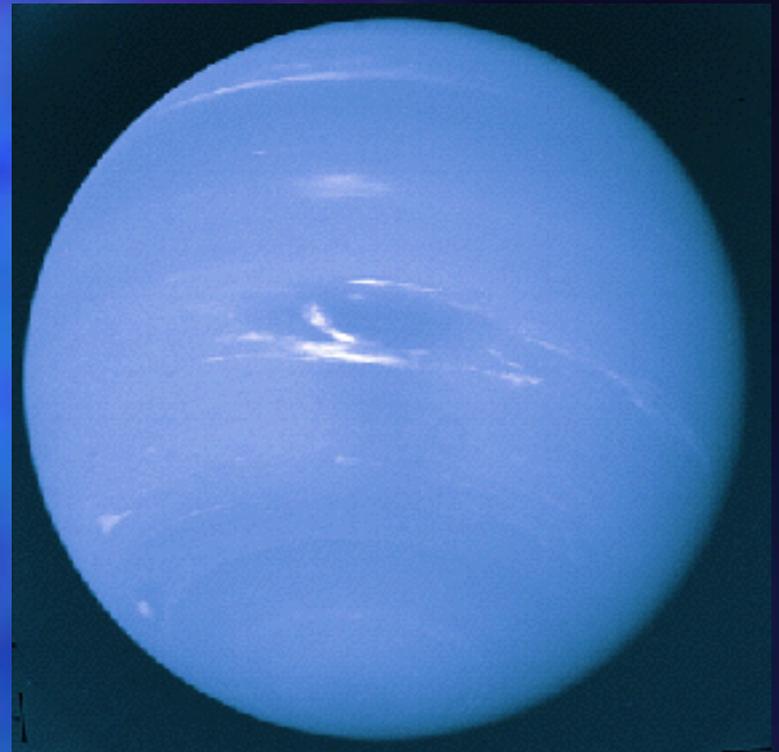
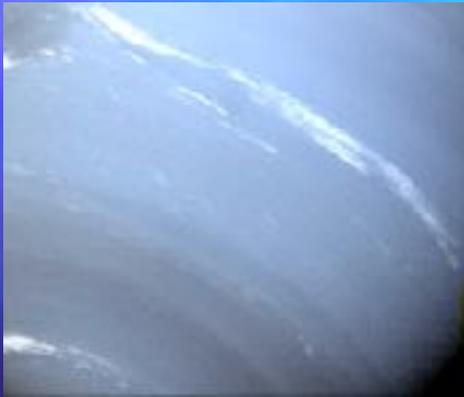


# Nettuno

Massa: 17

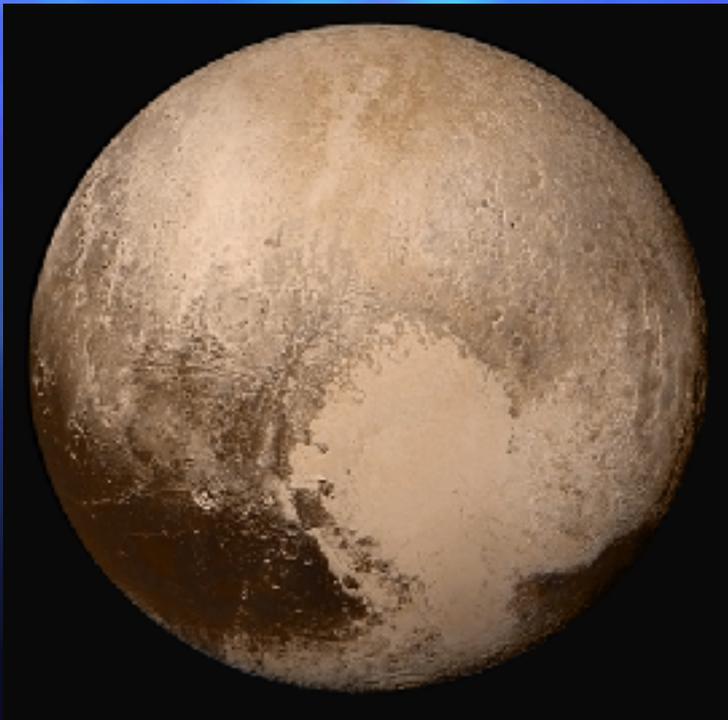
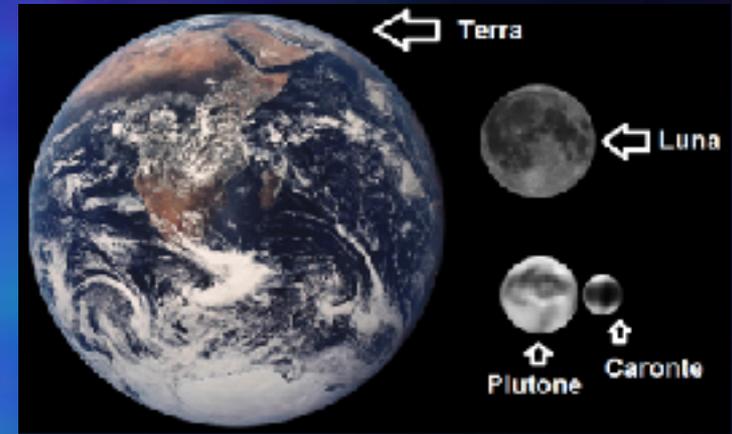
Distanza dal sole: 30

Lunghezza anno: 165 a





Massa: 2 millesimi  
Distanza dal sole: 40?  
Lunghezza anno: 249 a



## Plutone ed i pianeti nani

Plutone è stato visitato  
dalla sonda New Horizon nel  
2015!

# The Not-Planets

Many large round worlds are not currently classified as planets: the solar system's major moons, the largest asteroids, and large Kuiper belt objects. These are the ones spacecraft have visited.

Images from Galileo (Jupiter's moons), Cassini (Saturn's moons), Voyager 2 (Uranus and Neptune's moons), New Horizons (Pluto), Dawn (asteroids). Data from NASA/JPL/UMD/JHU/SRI/UCOLUMP/UCLES/NOA processed by Ted Stryk, Gordon Ugorenko, Emily Lubkowitz, and Jason Perry. Earth's Moon photo by Gert Frilings. Montage by Emily Lubkowitz. The Planetary Society. <http://planetary.org>

## Jupiter satellites:



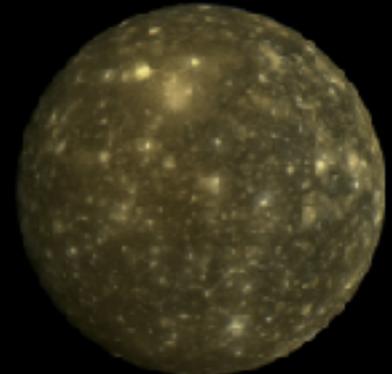
Io



Europa



Ganymede



Callisto

## Earth's Moon:



The Moon

## Saturn satellites:



Mimas Enceladus

Tethys

Dione

Rhea



Titan

## Uranus satellites:



Miranda

Ariel

Umbriel

Titania

Oberon

## Neptune satellites:



Triton

## Pluto system:



Pluto

Charon



Iapetus

## Asteroids:



Vesta

Ceres

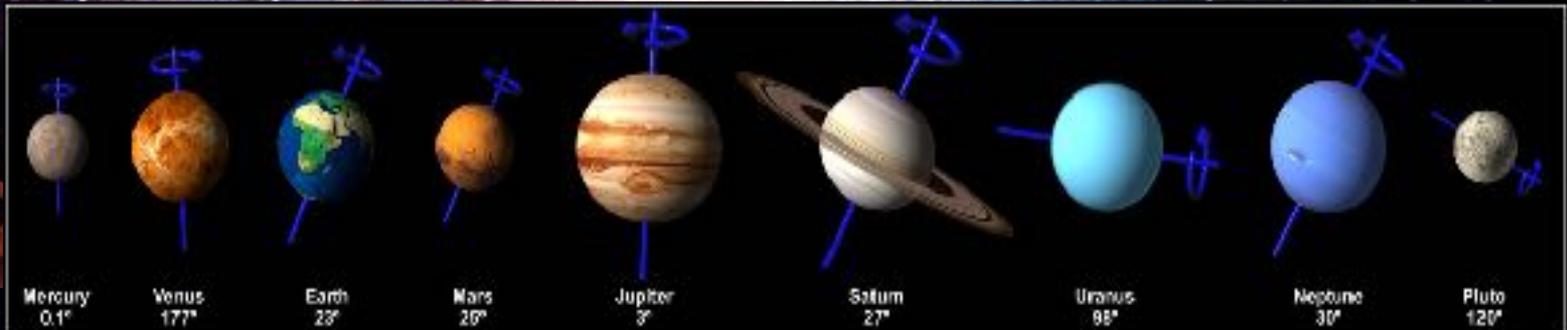


Peregrine



# Satelliti del sistema solare

# Fine del nostro viaggio



Per altri viaggi: [planetescapes.com/solar/](http://planetescapes.com/solar/)