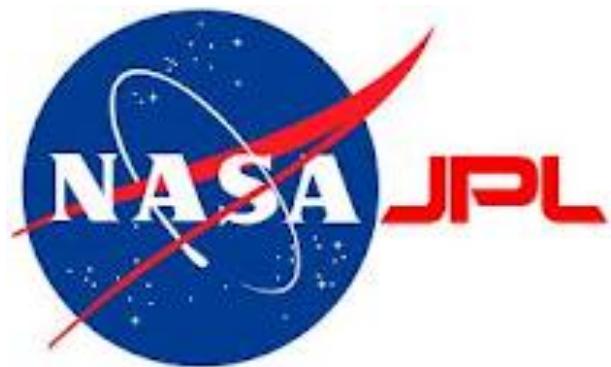


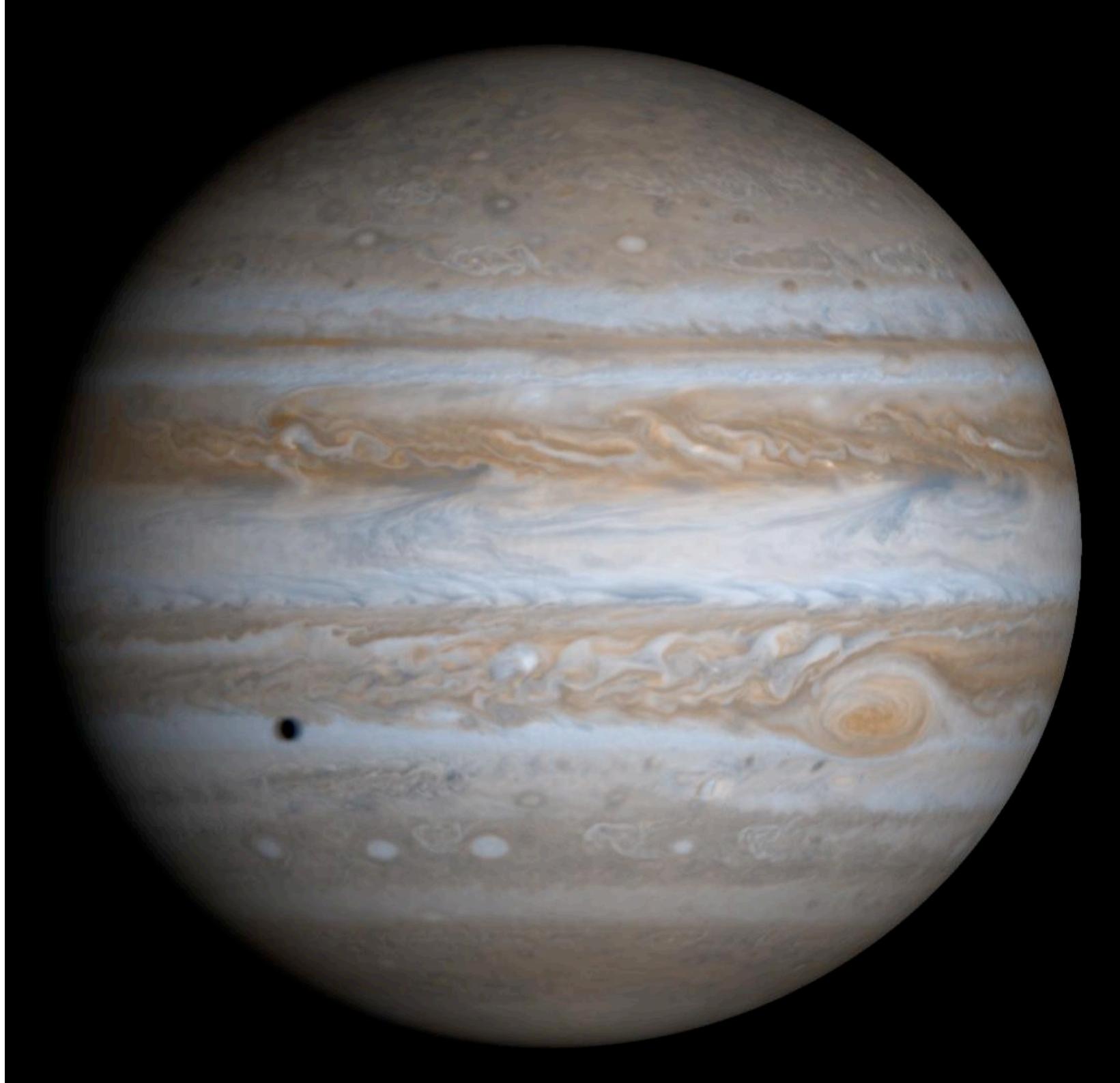
Kepler's 3rd law

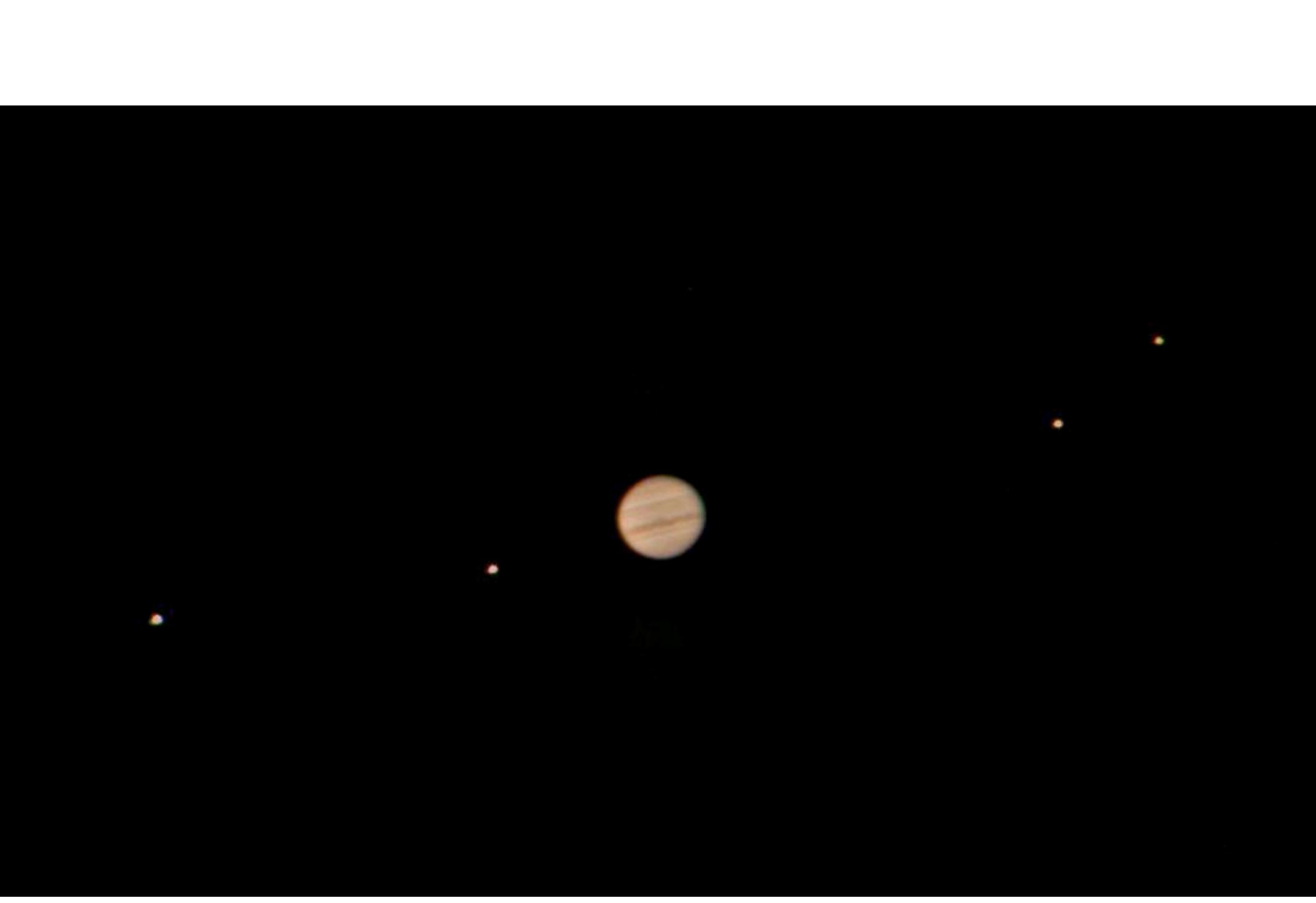


Wladimir (Wlad) Lyra

Sagan Fellow
JPL-Caltech



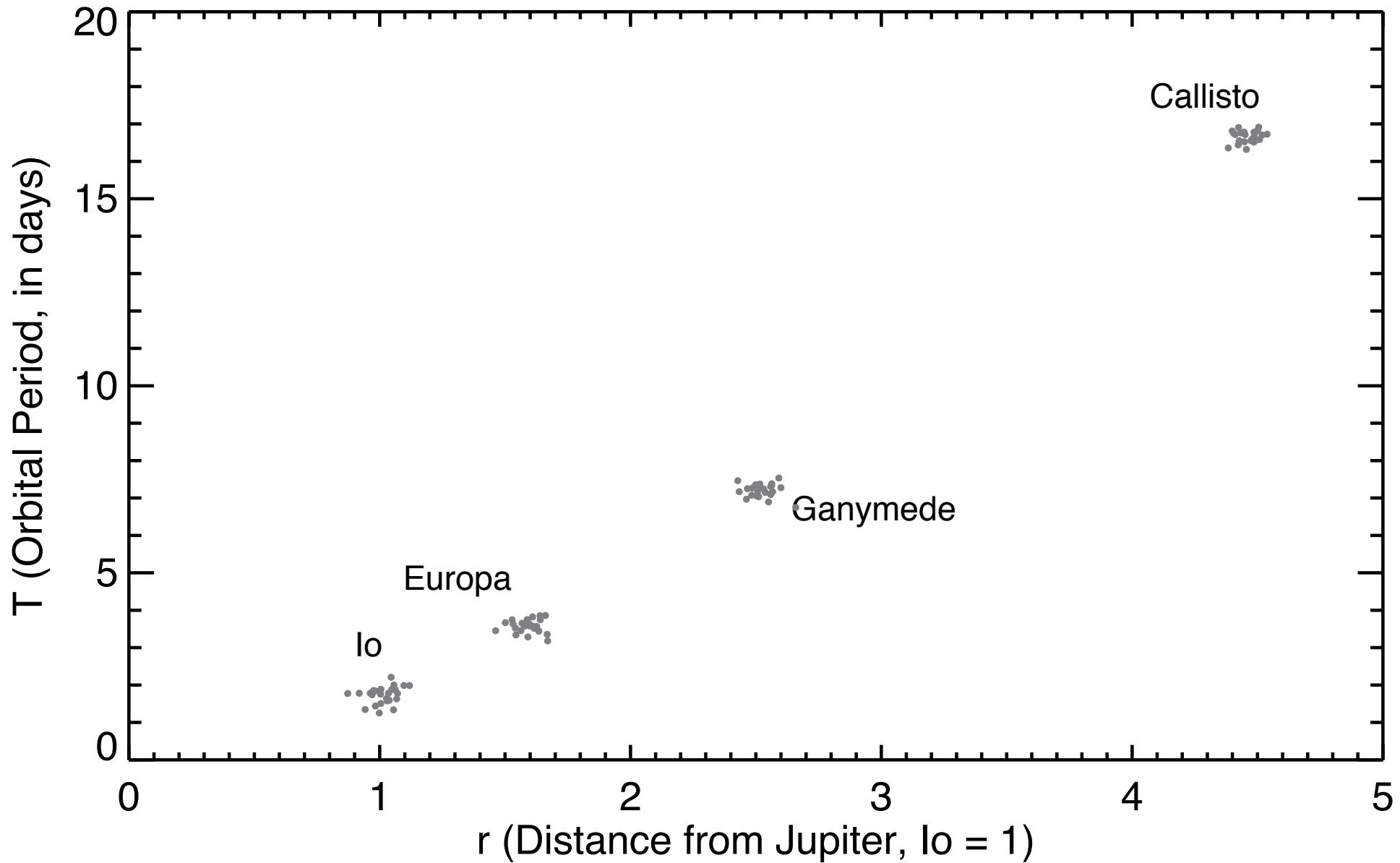




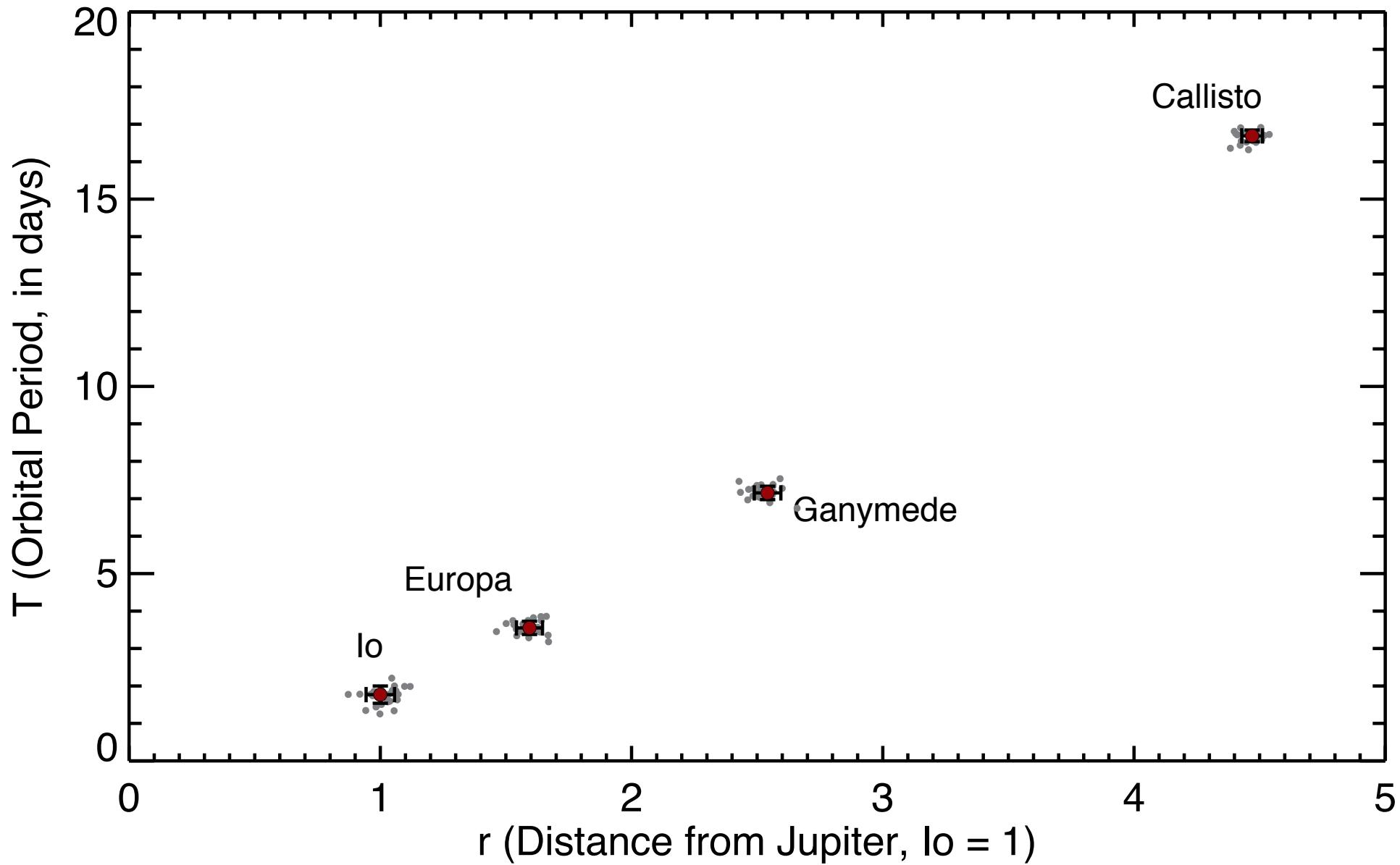


d	h						
0	0	.	.	.	.	.	.
0	12	.	.	.	.	.	.
1	0	.	.	.	.	.	.
1	12	.	.	.	.	.	.
2	0	.	.	.	.	.	.
2	12	.	.	.	.	.	.
3	0	.	.	.	.	.	.
3	12	.	.	.	.	.	.
4	0	.	.	.	.	.	.
4	12	.	.	.	.	.	.
5	0	.	.	.	.	.	.
5	12	.	.	.	.	.	.
6	0	.	.	.	.	.	.
6	12	.	.	.	.	.	.
7	0	.	.	.	.	.	.
7	12	.	.	.	.	.	.
8	0	.	.	.	.	.	.
8	12	.	.	.	.	.	.
9	0	.	.	.	.	.	.
9	12	.	.	.	.	.	.
10	0	.	.	.	.	.	.

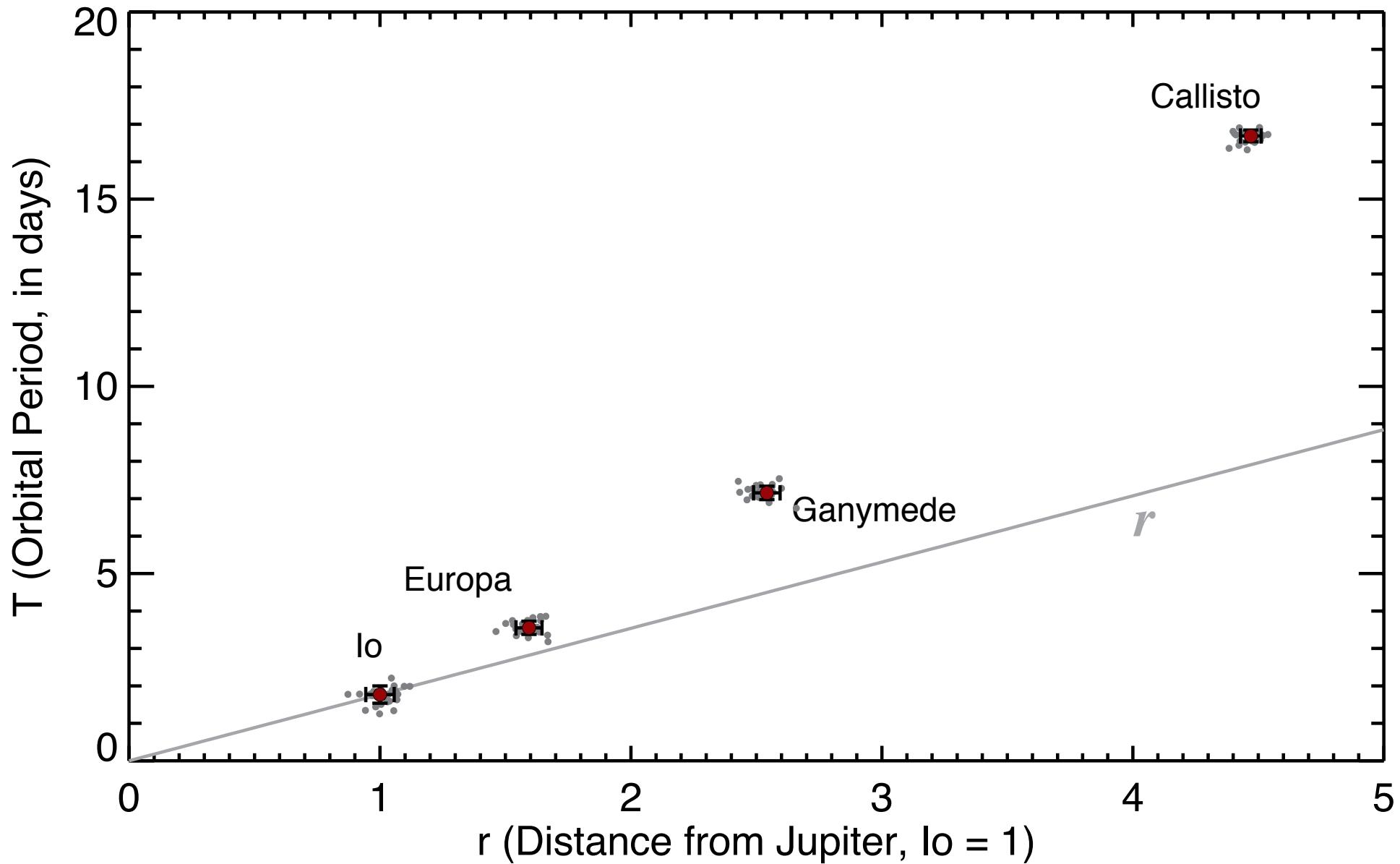
Jupiter Satellites



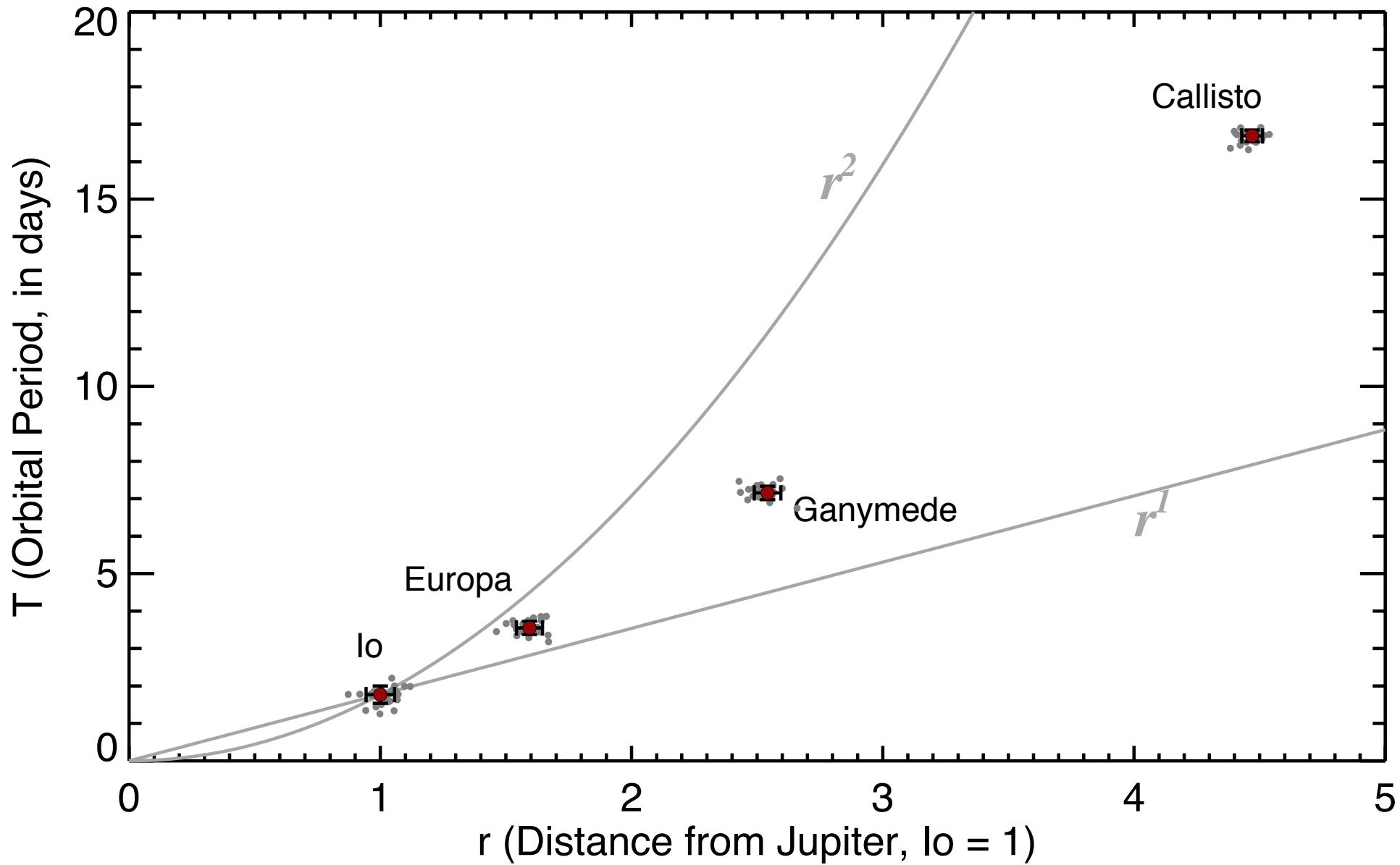
Jupiter Satellites



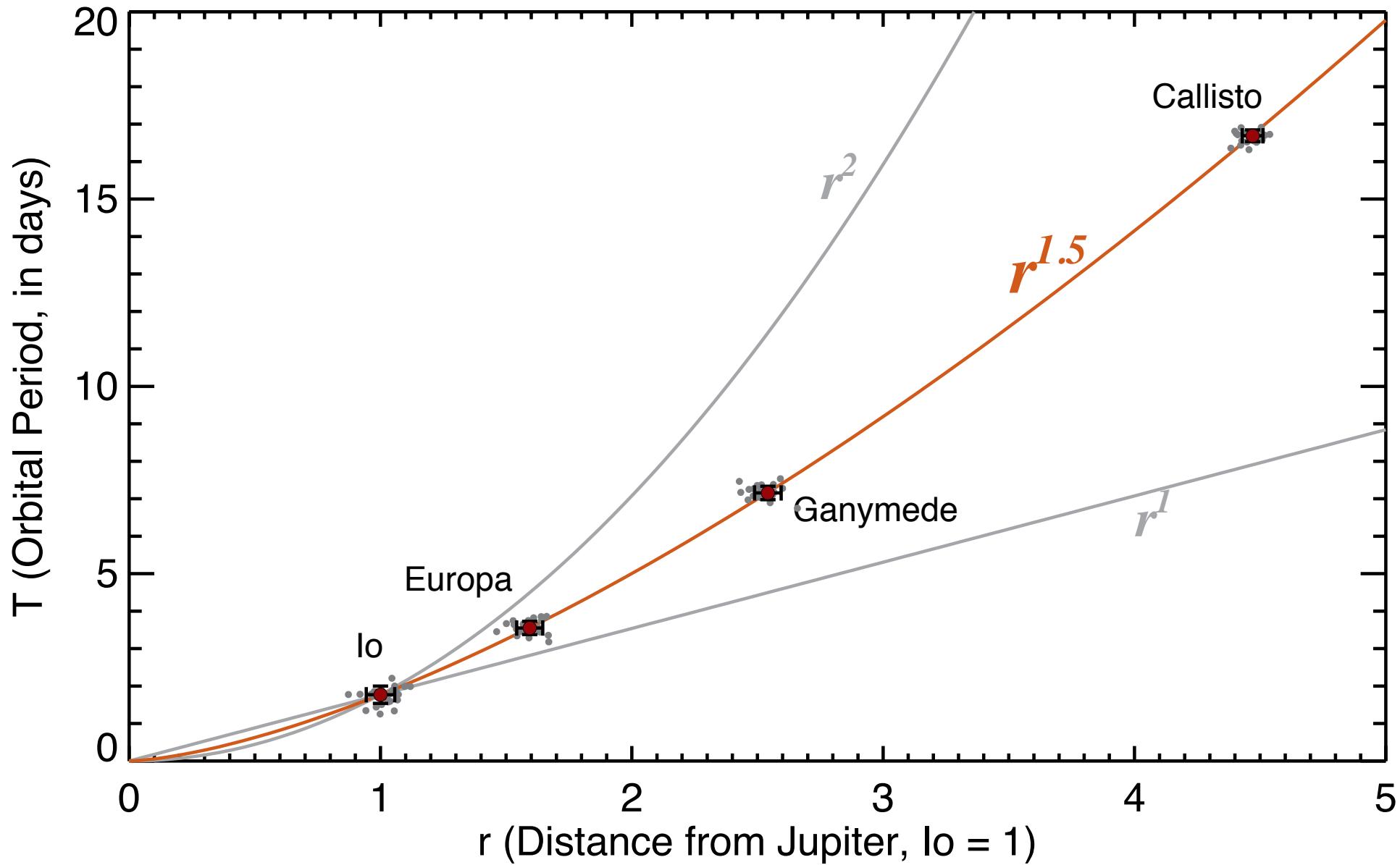
Jupiter Satellites



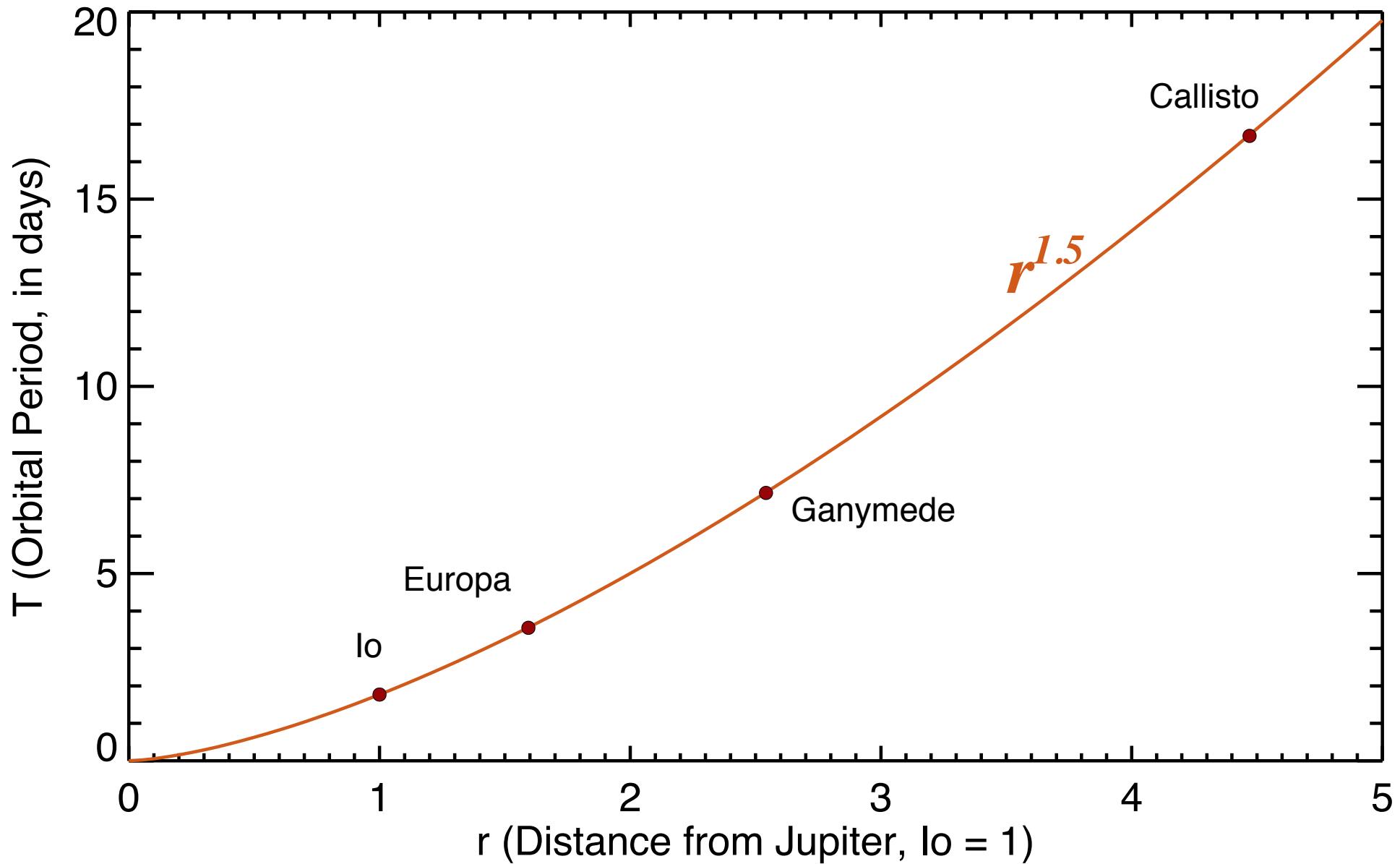
Jupiter Satellites



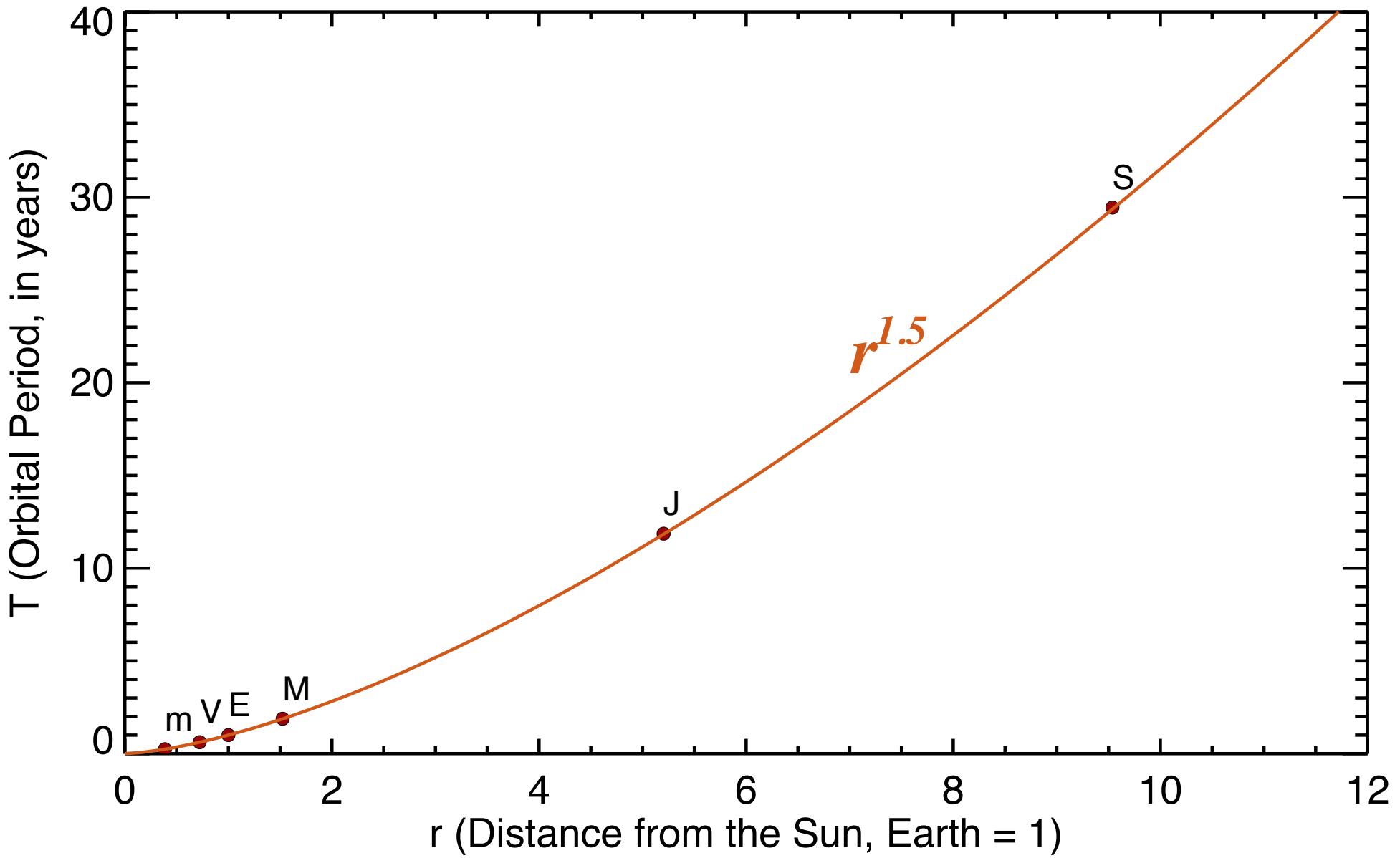
Jupiter Satellites



Jupiter Satellites



Planets



Kepler's 3rd law

The square of the orbital period of a planet
is directly proportional to the cube of the
semi-major axis of its orbit.



Mars

- a) 1 year
- b) 1.5 years
- c) 2 years

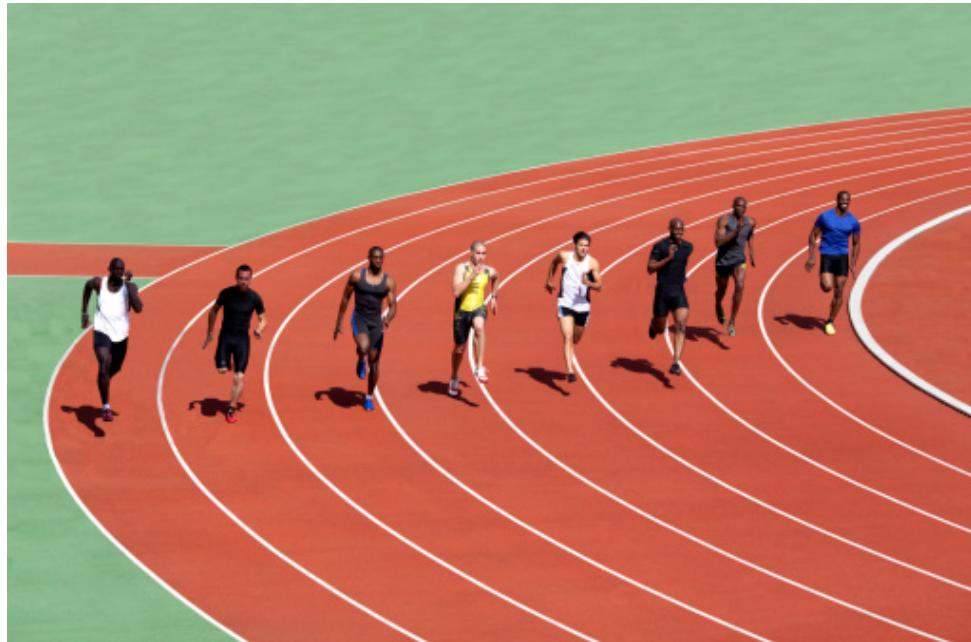


Mars

c) 2 years

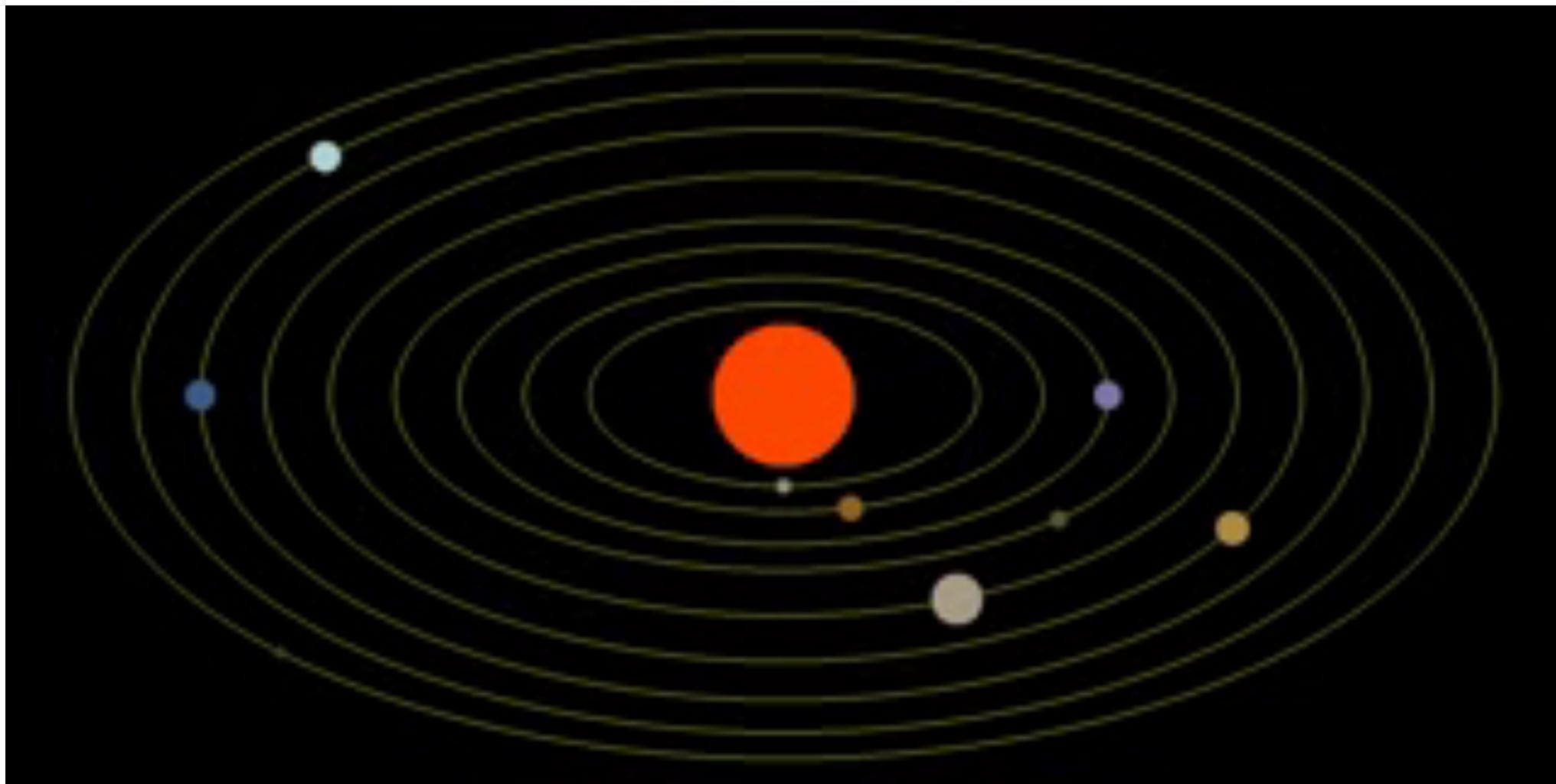


Mars



c) 2 years





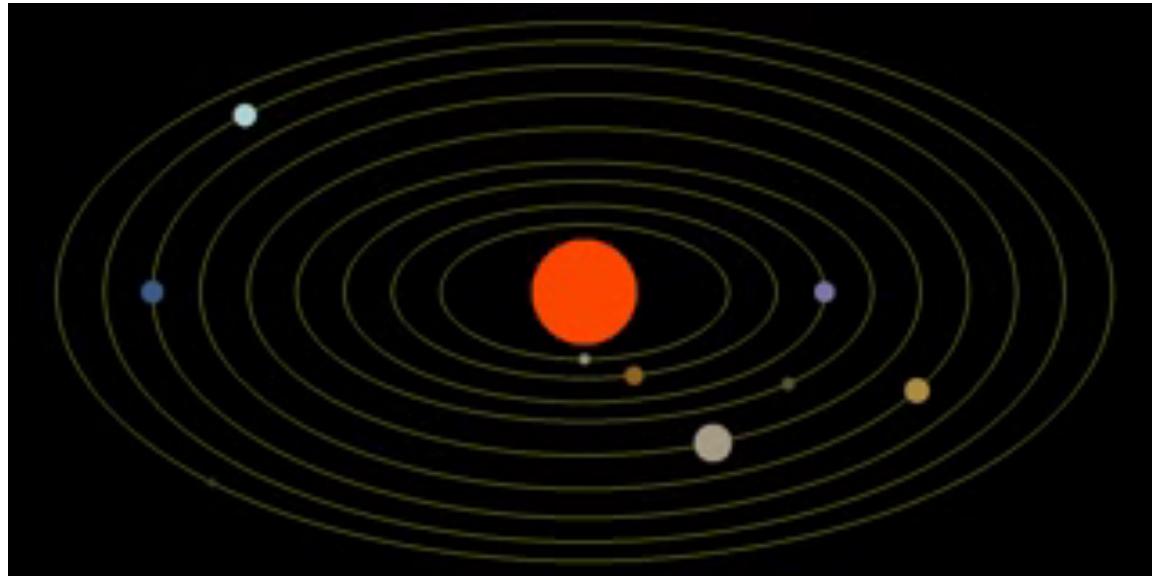
Stuff **close in** moves **fast**
stuff **far out** moves **slow**

Kepler's 3rd law

The square of the orbital period of a planet
is directly proportional to the cube of the
semi-major axis of its orbit.



Kepler's 3rd law



Stuff **close in** moves **fast**
stuff **far out** moves **slow**

