this visualization displays the relative size of solar system satellites (top), and the relative ratio of satellites-hosts (bottom)

planets:

- first, the planets: each planet is shown as a black empty circle, at its proper distance from the Sun (*x*-axis).
- the **size** of the planet circle is proportional to the **mean radius** of the planet
- the **darkness** of the circle is proportional to **how many satellites** the planet has

satellites:

- each satellite is a circle. **each family is a color**: same color means same plane host
- the ***alpha*** - or transparency value, is proportional to the satellite **magnitude** (V or R)
- the **distance** to the planet is proportional to the **semimajor axis** of the satellite's orbit
- the **rotational speed** is proportional to the actual **orbital speed** assuming a circular orbit

satellite size:

- in the TOP plot the size of the satellite circle is proportional to the **size of the satellite** (in log space). note that the size of the planets is not in the proper proportion and should not be compared to the size of the satellites!! the planet sizes are in proportion among the planets (in natural space), the satellites among satellites (in log space).
- in the BOTTOM plot the size of the satellite circle is proportional to the **satellite/host size ratio** (natural space)

take home point: the radius of the Moon is a whooping quarter of the radius of the Earth! in proportion, its huge! the Moon may not be a big object, but it is very large compared to its host, the Earth.