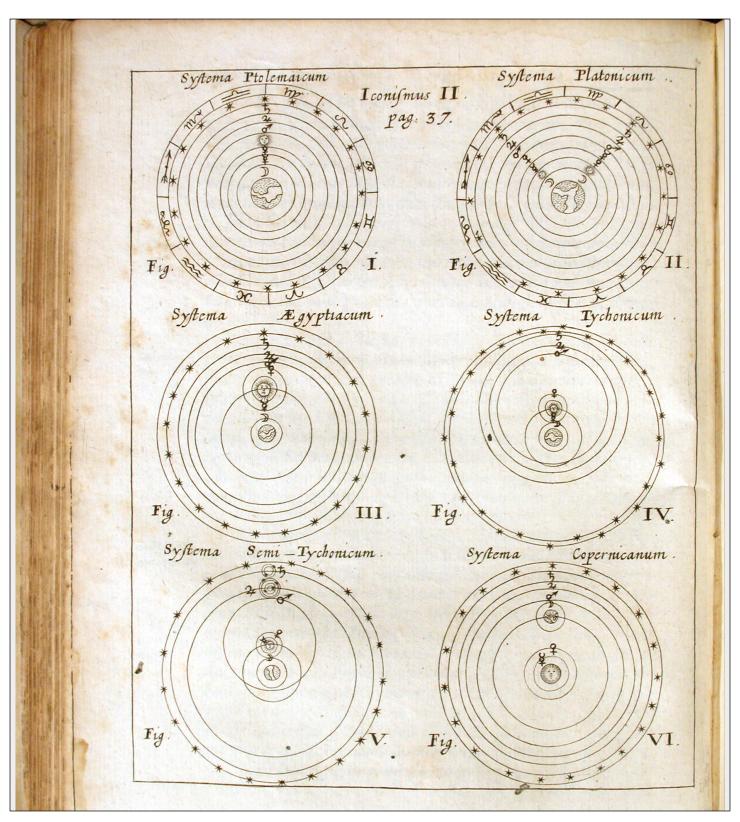
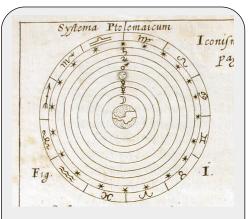
Six Cosmological Systems Geocentric vs. Heliocentric





Athanasius Kircher, Iter exstaticum (Würzburg, 1660; "Ecstatic Journey through the Heavens")

Exhibit: Galileo's World | Gallery: Controversy over the Comets, no. 1 Read more in the Exhibit Guide. Download learning leaflets: lynx-open-ed.org



1. Ptolemaic system

All planets revolve around the central Earth.

Geocentric | Heliocentric



2. Platonic system

Like the Ptolemaic, except the positions of Venus and Mercury are switched.

Geocentric | Heliocentric



3. Capellan or Egyptian system

Venus and Mercury revolve around the Sun.

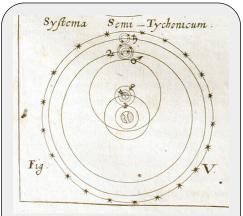
Geocentric | Heliocentric



4. Tychonic system

Planets revolve around the Sun.* The Sun in turn revolves around the Earth.

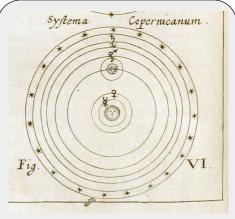
Geocentric | Heliocentric



5. Semi-Tychonic system

Like the Tychonic, except Jupiter and Saturn revolve around the Earth.

Geocentric | Heliocentric



6. Copernican system

All planets revolve around the Sun.* The Moon is a satellite and not a planet.

Geocentric | Heliocentric

Six chief world systems were debated in Galileo's world:

"Geocentric" refers to systems centered on the Earth.

"Heliocentric" means that the Sun is at the center.

For each system above, circle whether it is geocentric or heliocentric (or both).

Are some systems hybrids between the two, so that neither term applies, or both terms apply in some sense? What might the term "geo-heliocentric" mean, and would it better characterize any of these systems?

*In the Tychonic and Semi-Tychonic systems, the Earth and Moon are not planets. In the Copernican system, the Earth is a planet.

Kerry Magruder and Brent Purkaple

