Galileo Galilei (1564 - 1642)

Galileo’s Telescopic Discoveries
- Phases of Venus
- Jupiter’s moons
- Moon’s craters
- Sunspots
- Milky Way made up of “innumerable stars”

Cosmology
The study of the Universe as a whole: its contents, structure, origin, evolution, and ultimate fate.

Geocentric: Earth-centered
Heliocentric: Sun-centered
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Galileo’s Contributions to Science and Mechanics

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- Law of Inertia: Every body tends to continue doing what it is already doing -- being in a state of rest, or moving uniformly in a straight line -- unless it is compelled to change by an outside force.

Two Fundamental Questions about the Planets

What are the precise paths taken by the planets as they revolve around the Sun? Why do the planets follow the paths that they do?

Johannes Kepler (1571 - 1630)

Isaac Newton (1643 - 1727)

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Today’s Class: The **BIG** Picture

The foundation upon which modern physical science is built was established during the 16th and 17th centuries by the work of Kepler, Galileo, and Newton.