

A deep field image of the universe, showing a vast field of galaxies in various colors and orientations against a dark background. The galaxies are scattered across the frame, with some appearing as bright, distinct points of light and others as faint, elongated structures. The colors range from blue and green to yellow and orange, suggesting different types of galaxies or different stages of their evolution. The overall appearance is that of a rich, multi-colored galaxy population.

FAITH & SCIENCE

WHAT WE THINK WE KNOW

A Brief History of Science



The Way of Scientific Knowledge:

How to build a theory in three simple steps

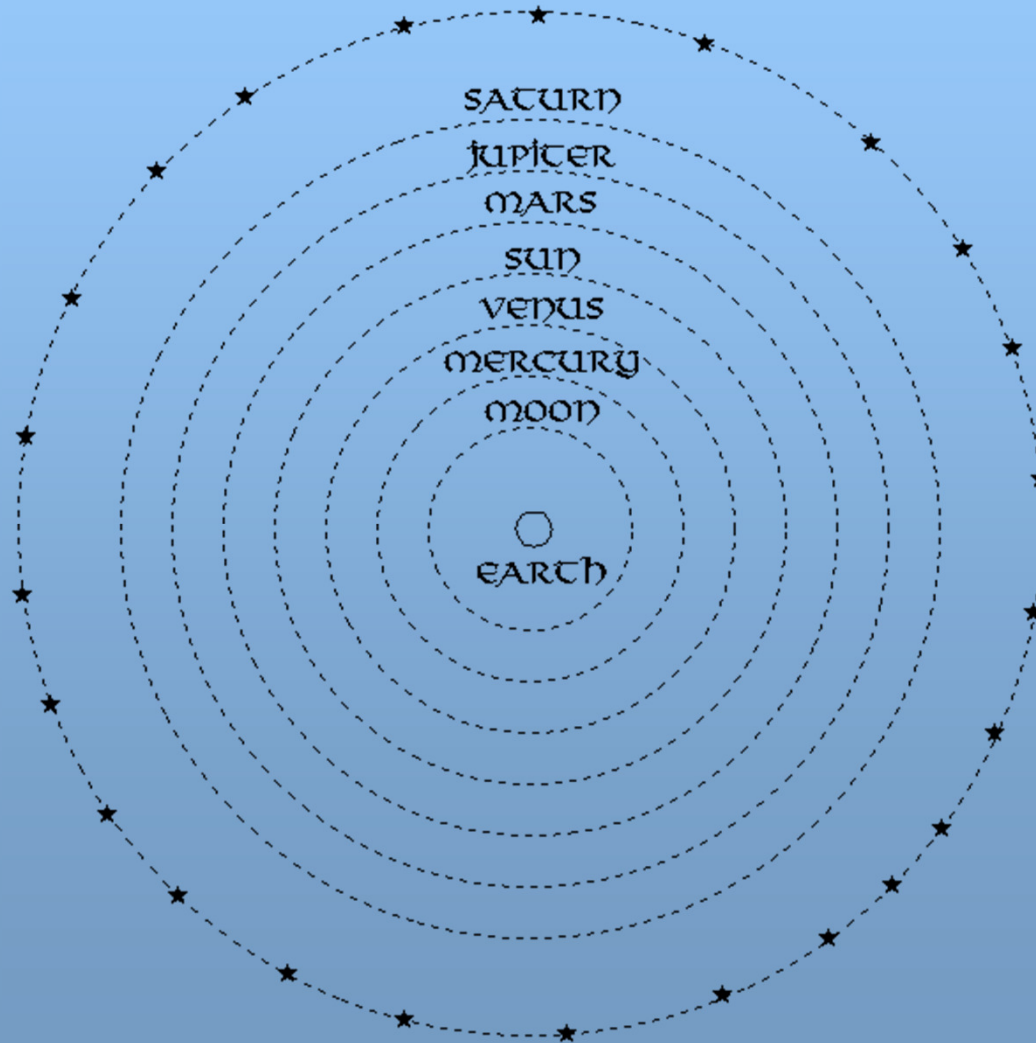
- Choose a set of postulates that are assumed, but are not proven.
- Draw logical conclusions from the postulates.
- Find an observation that corresponds to the conclusions of your theory.

How to discredit a theory in one simple step

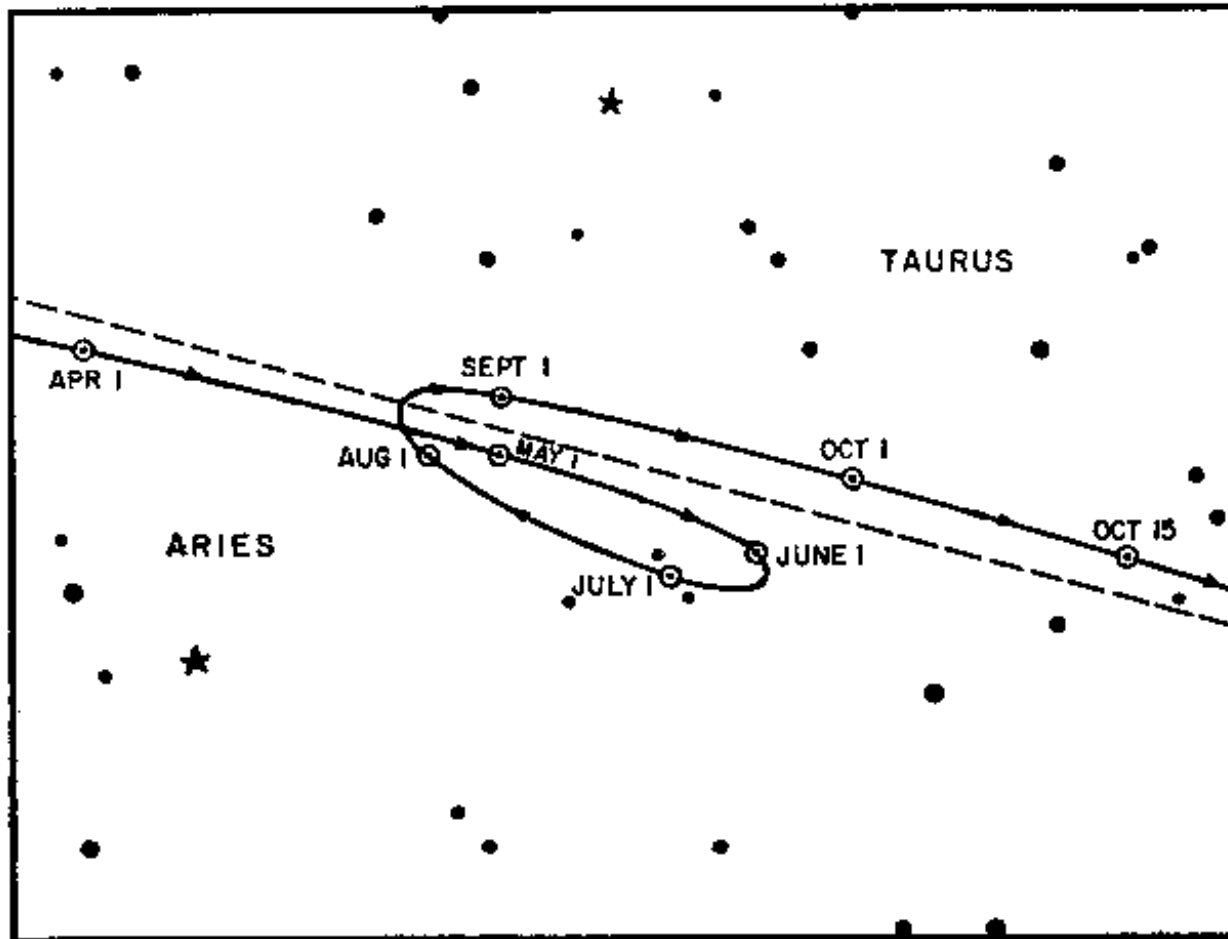
- Find an observation that shows results different from what is logically concluded by the theory.
- If there is nothing wrong with the logic of the theory, then the postulates on which the theory is built need to be questioned.

“No amount of experimentation can ever prove me right; a single experiment can prove me wrong.” – Albert Einstein

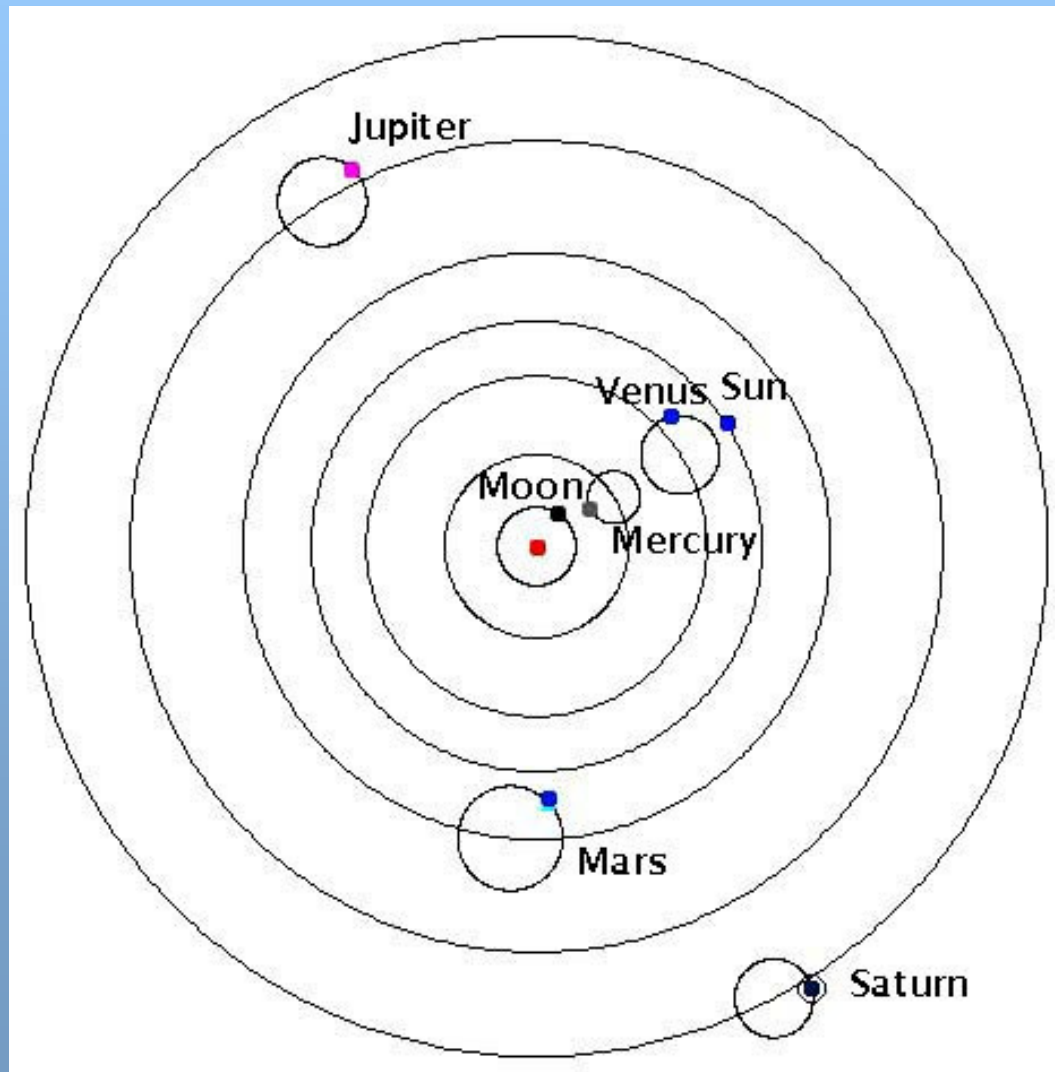
Geocentric Model



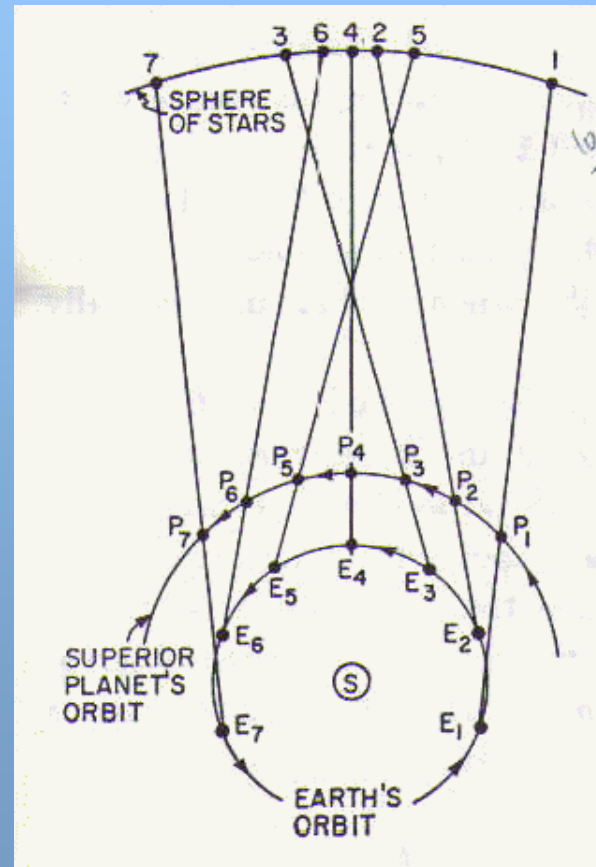
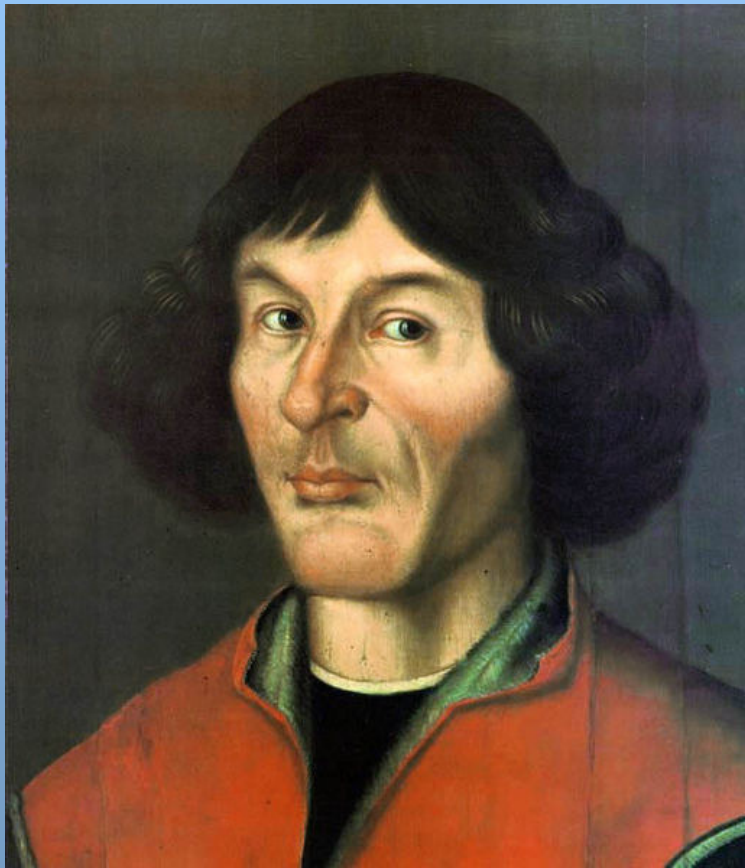
Planet's Observed Path



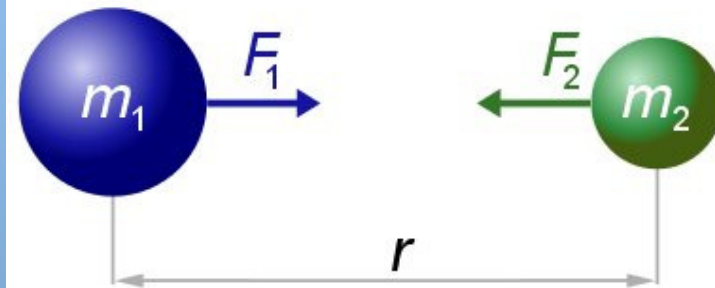
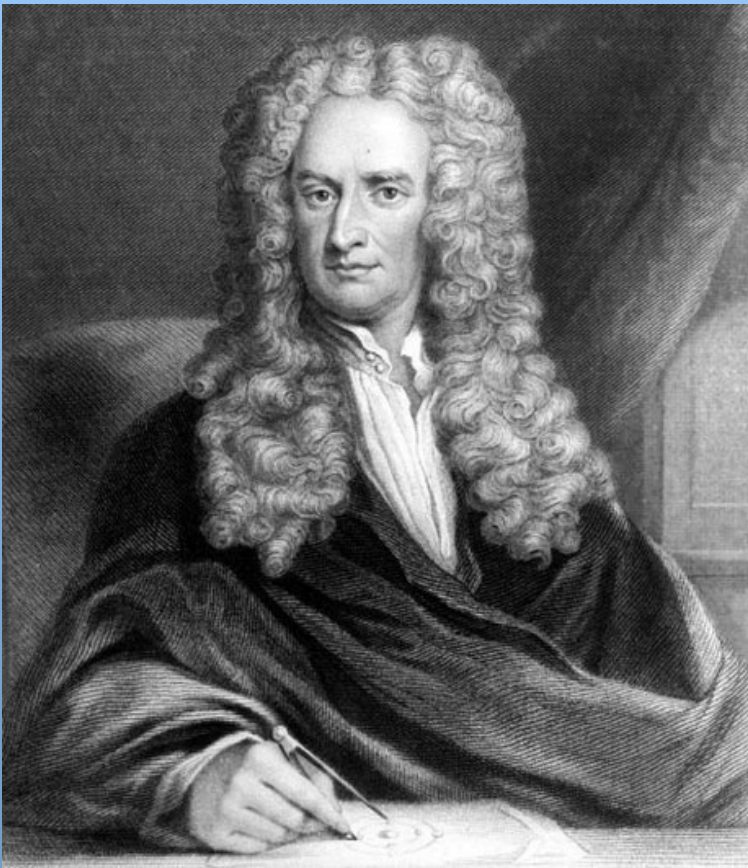
Ptolemaic System



Heliocentric Model

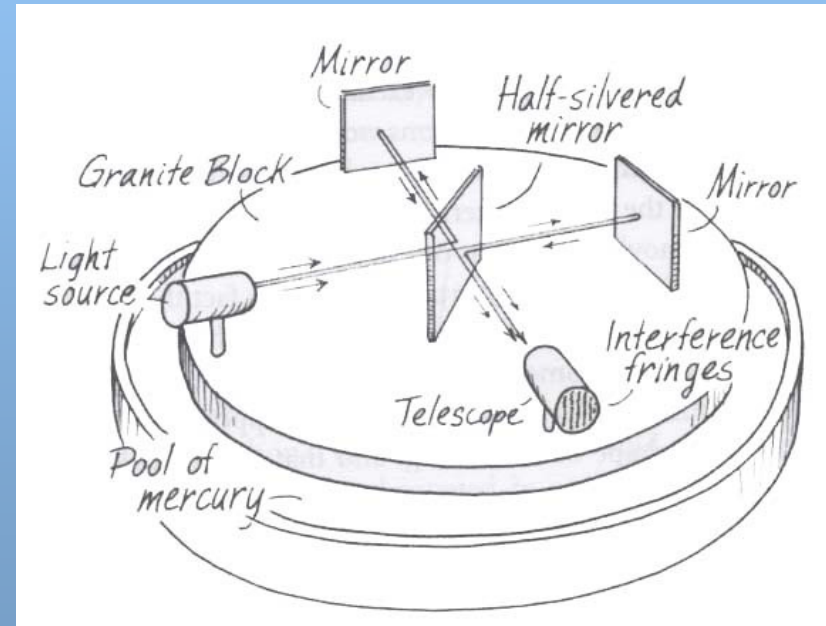
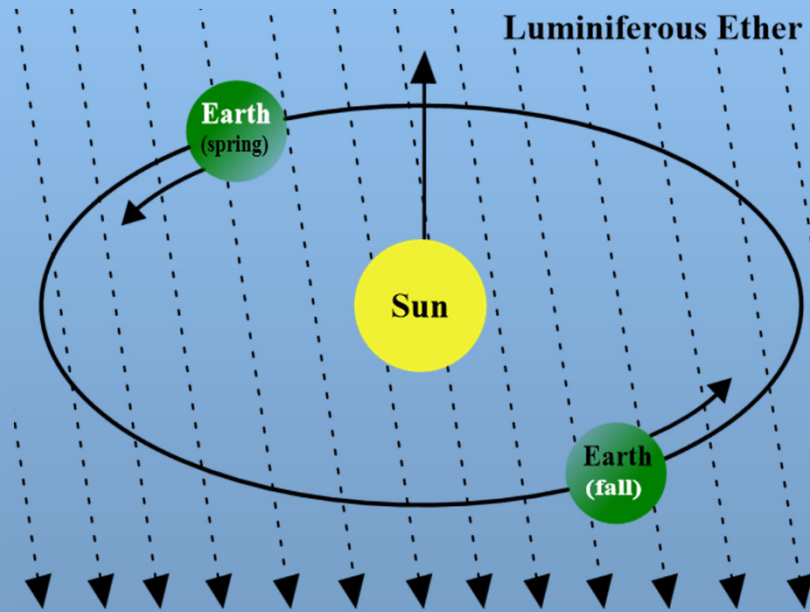


Classical Mechanics



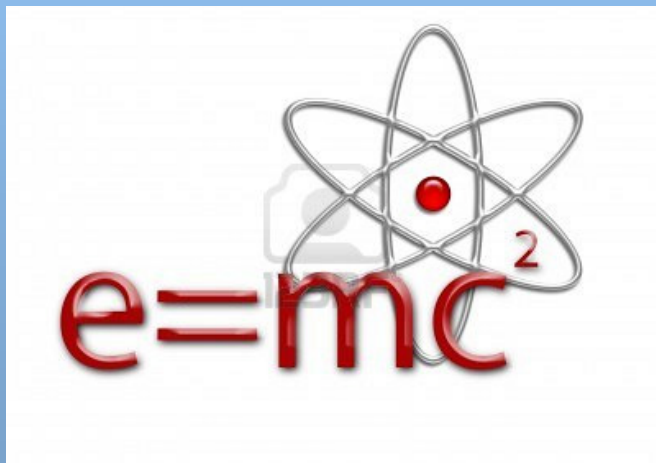
$$F_1 = F_2 = G \frac{m_1 \times m_2}{r^2}$$

Michelson-Morley Experiment



Modern Physics

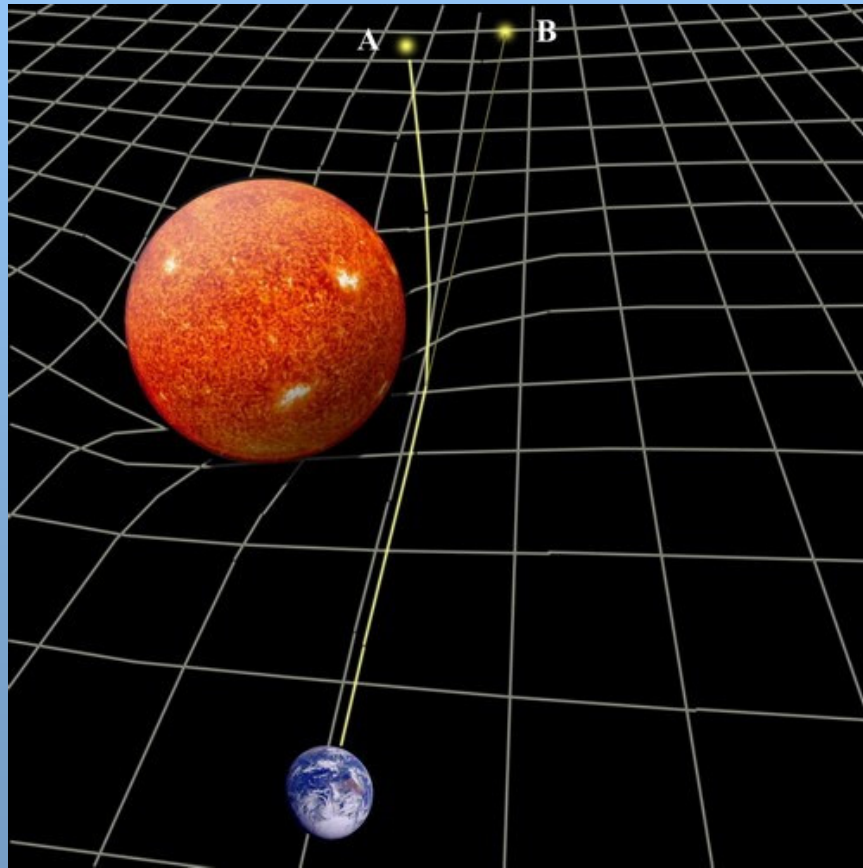
Theory of Relativity



Quantum Mechanics

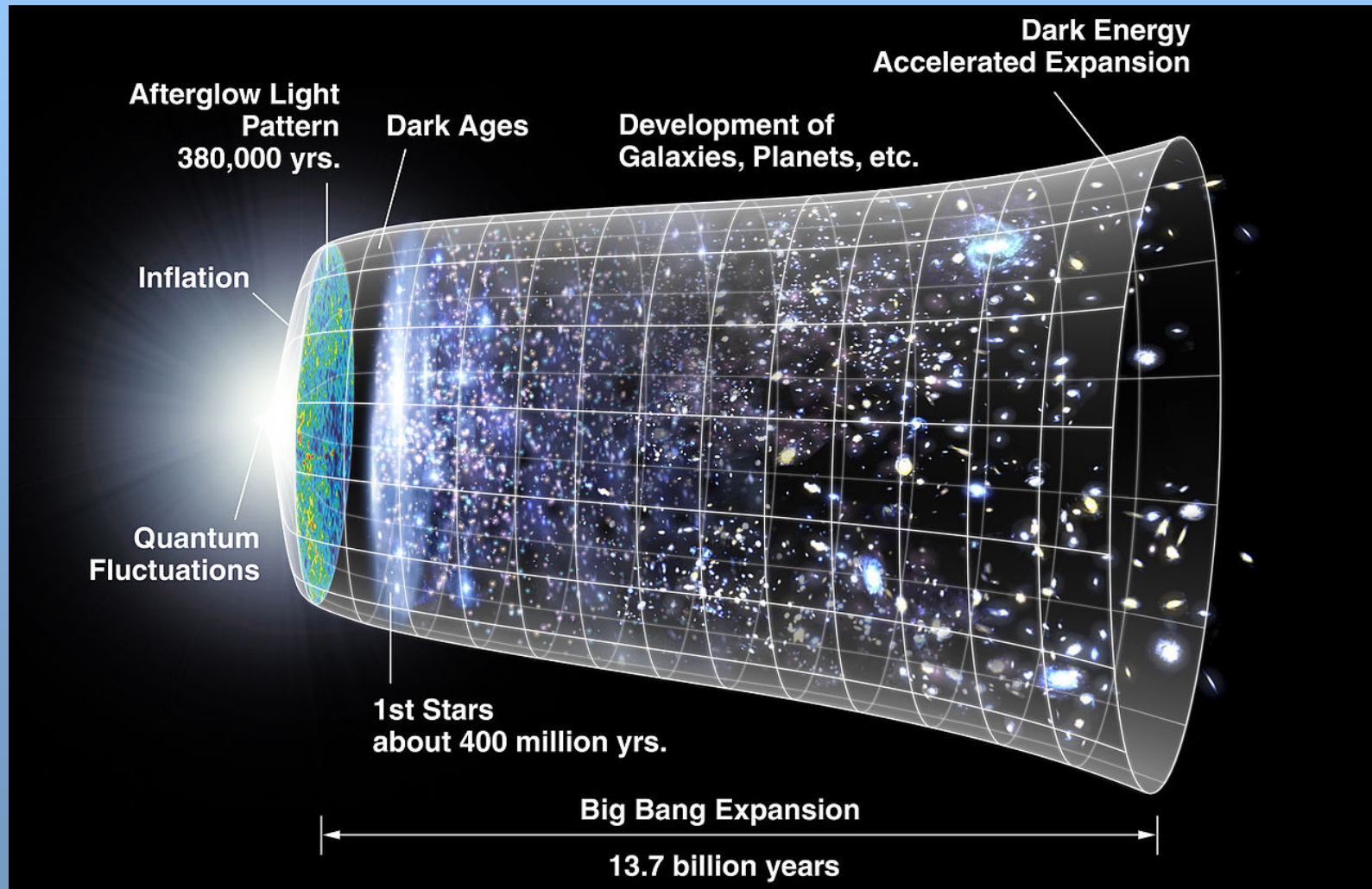
$$\Delta x \Delta p \geq \frac{\hbar}{2}$$

An Observation is Needed: solar eclipse of 1919



Big Bang

(the final frontier..?)



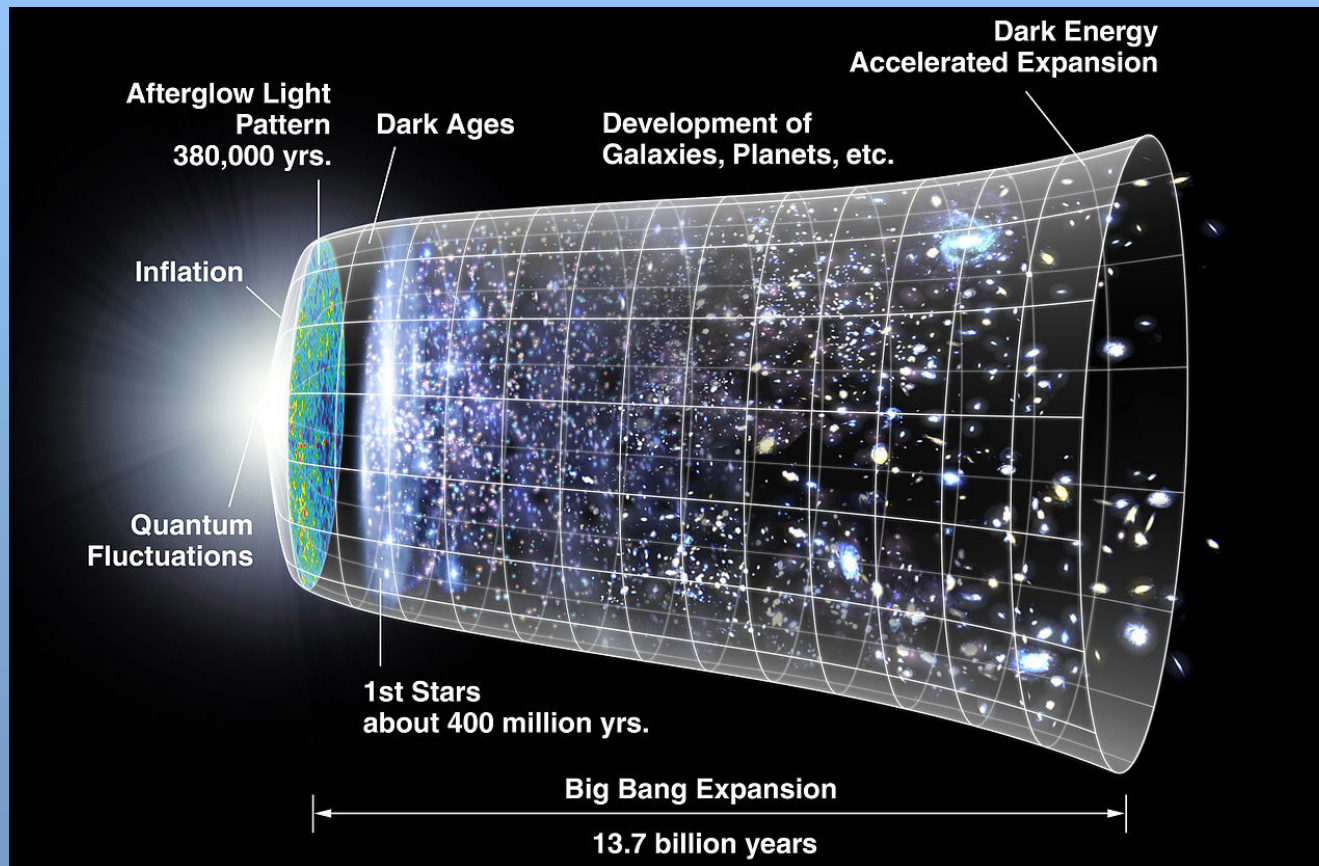
Does Scientific Approach Hold All the Keys?

The Limitations of Science

The Postulates of Scientific Approach

- The Laws of Nature are constant throughout space-time of our Universe
- Everything that is observed has a cause in a previous event

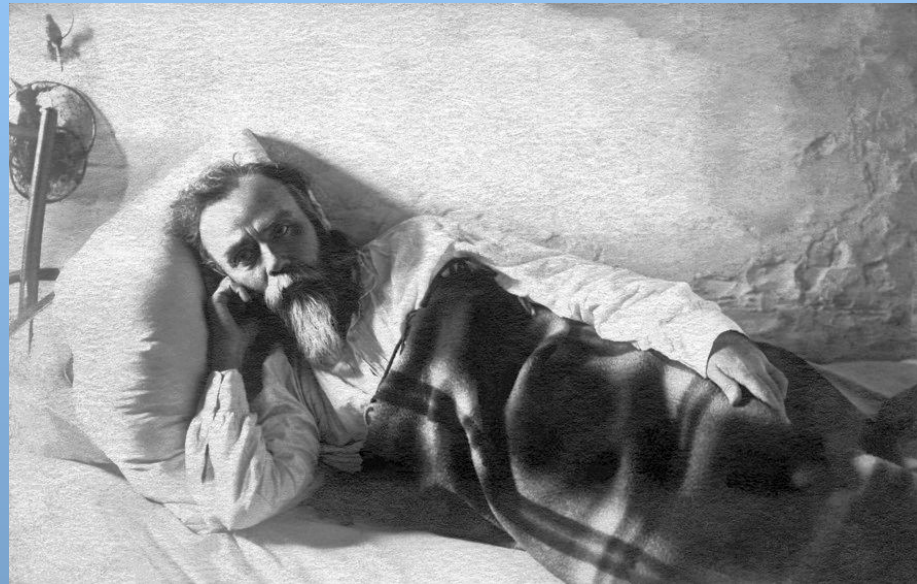
The Constancy of Laws of Nature (is it always the case?)



Cause-Effect

- Can something happen without a cause?
- If God caused something, can we detect this cause by scientific ways?
- What does the doctrine of “Creation out of nothing (ex nihilo)” tell us about how God acts in this Universe?

Can we prove that there is more to the
Universe than material existence ?



Archpriest Valentin Sventsitsky (1881 – 1931)

The Aspects of Human Existence

(Do we hold these truths to be self-evident?)

- Free will
- Distinction between good and evil
- Purpose of Life

The Choice:

- If these aspects of human life are realities and not illusions, than they are beyond what scientific approach can explain.
- If these aspects of human life are mere illusions, than who can guarantee that scientific research is not just as much of an illusion?