

Astro 25 week 13b: Homework #15 (5 pts)

Consider the following.

- Zwicky and Baade predicted the occurrence of a new kind of object (neutron stars) in 1934, although the first such object wasn't observed until 1965.
- Einstein predicted gravitational redshift of light in 1916, although the technology to measure it wasn't available until 1960.
- The heliocentric models for the solar system—as promoted by Aristarchus (ca. 270 BCE) and Copernicus (1543)—would require the existence of stellar parallaxes, but the technology available to measure parallaxes was not available until 1838.
- It has been proposed that we might be under observation by aliens, but they will not contact us until we achieve interstellar space travel (Roddenberry, Sagan). Depending upon our rates of scientific advancement, we not be able to test this hypothesis for centuries or even millennia.
- When faced with an apparent paradox, Christians may invoke the phrase “God works in mysterious ways,” neatly making any scientific test of religion impossible, regardless of technological advances.

Within this context, write a short essay (200-500 words) exploring the philosophical question of whether the mathematical framework of string theory should be considered a scientific theory. If you think it should be, address the issue of a lack of predictions. If you think it shouldn't be, does this mean it is necessarily wrong or inappropriate for study?

This is a philosophical piece—you do not need to cite references.