# **Assignment 2**

**Determine which paper proposes a novel method that could be utilized to attract the attention of, and ultimately communicate with, extraterrestrial intelligence**

Paper A: Transit Light-Curve Signatures of Artificial Objects

Paper B: Searching for GEMS: Confirmation of T0I-5573 b, a Cool, Saturn-like Planet Orbiting an M Dwarf

Paper C: Parallax Effect in Microlensing Events Due to Free-floating planets

Paper D: Earth as an Exoplanet: Investigating the Effects of Cloud Variability on the Direct-imaging of Atmospheres

**Answer**: **Paper A** ( Transit Light-Curve Signatures of Artificial Objects ) discuss the novel method that could be utilized to attract the attention of, and ultimately communicate with, extraterrestrial intelligence.

Instead of sending radio or laser signals to aliens (like most SETI efforts do), this paper suggests something totally different: Use artificial, planet-sized objects to create weird or unnatural transits across stars-transits so strange that they catch the attention of any intelligent alien observers.

When a planet passes in front of its star from our point of view, the star gets dimmer for a little while-this is called a transit.

Space telescopes like Kepler and TESS detect tons of these events to discover exoplanets.

The paper proposes building large artificial objects (like triangles, multi-screen structures, or louvers) that orbit a star and block its light in a way that:

* Would never be caused by natural planets
* Think of it like blinking Morse code

advanced civilizations would also be watching stars to find planets-just like we do. Aliens would spot it and understand that this is not a planet but a signal.