Space arithmetic and Time Travel – Do black holes also travel through time?

Continuing the discussion on one of the applications of Space Arithmetic, here we focus on Time Travel.

Light creates spatial value

In physical space, the maximum speed is the speed of light, c. Consider the L–coordinate system with 2 dimensions (one spatial axis and one time axis). A state of energy such as light moves at speed c, therefore it creates a spatial value of ct^2 (distance traveled multiplied by time). This means the spatial value increases; spacetime expands and we ignore frequency and wavelength, and treat light simply as a moving state of energy in a 2–dimensional system. Some may ask: Why is the spatial value ct^2 in a 2D system? Would the value be different in systems with more dimensions?

The important point: spatial value is not a “thing” that exists independently. It is only the spatial state of energy. So, using different coordinate systems depends on the context. We can “unpack” from 2 dimensions to many dimensions, or the other way around. This means: Spacetime “exists” in the physical world because humans perceive it. But it also “does not exist” because it is merely the form of energy’s motion. Spacetime is not a background field. It does not bend or curve. The so-called “curvature of spacetime” in physics is actually only the spatial value created by the motion of energy. Therefore, to understand how energy creates spatial value, we examine light creating spatial value in the 2-dimensional L–system, again ignoring wavelength and frequency.

In any physical reference frame, the speed of light is invariant. So this is the upper limit of the spatial value that a single light-energy state can generate in this universe.

Gamma rays have the highest energy known today. They have the highest frequency and shortest wavelength. Yet their speed is still c.In the future, humanity may discover energy states with higher or lower energy, frequency, or wavelength than visible light. But this cannot continue endlessly, because at some limit, such radiation will reach the maximum spatial value that can be created in this universe. If it exceeds that limit → that energy state may already have traveled through time → meaning it has gone beyond the current universe.

Black holes – do they travel through time?

Yes. As previously discussed: When an energy state (a black hole) is compressed to a certain level, it cannot create spatial value in this universe anymore. Then:

- ✔ It creates spatial value inside itself, in another universe that exists within it.
- ✔ It also pulls spatial value / energy (negative spatial value in the L–coordinate system) from our universe.
- ✔ Therefore, it travels through time – effectively moving the black hole backward relative to the past of our universe.

This is only a personal viewpoint that I would like to share from my own reflections. Thank you for reading these lines.