1. Letter to CERN Uni ZH as email

2. Experimental Proposal: Investigation of Photon Pathways and Wave Interference Patterns

1.

Dear Knowledge Creators, at Cern , rep physics at Uni ZH and Fabio EPFL

I would like to submit a proposal for an experiment at CERN that will definitively settle the question of photon trajectories in space once and for all. This can only be achieved if all possible trajectories (wave, helix, or others) are considered, and the result of the test determines how photons truly move in space.

An experiment, like the one conducted by EPFL (see the letter to EPFL under this

link: https://bisceglia.ch/KRITIKepfl.pdf),

does not take this into account and only provides two-dimensional, indirect evidence as a result. Therefore, this experiment cannot be considered definitive proof of a wave as the trajectory of photons. In the attachment or under the link, you will find my detailed critique of the postulate that photons stretch in space in the form of a wave.

The experiment I would like to propose has not yet been fully adapted to the available technical possibilities and does not consider all the technical resources that CERN currently has or that exist. However, since this question plays a central role in science and the future of humanity, potentially leading to further logical conclusions—such as the nature of gravity and many still unexplained phenomena and paradoxes—I consider this question to be one of the most important, if not *the* most important, question of science and humanity in the 21st century.

I have reached out to you several times before, but without receiving a serious response. I now hope that by describing this potential experiment, I can spark your interest in finally addressing this urgent question. I have already resolved this issue for myself over the past 30 years.

For further information, you can also find my article:

The Fundamental Structure of the Cosmos at this link: https://bisceglia.ch/Thesis%20on%20the%20Fundamental%20Cosmic%20Structure.html.

I kindly request feedback on whether this letter has generated a serious response and whether CERN would potentially consider conducting such an experiment to take this crucial step for humanity.

Thank you in advance for your time and consideration.

Sincerely,

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2. Experimental Proposal: Investigation of Photon Pathways and Wave Interference Patterns

Objective:
The objective of this experiment is to explore the interaction of photons with surfaces to determine if their trajectories can form a helical or wave-like pattern. Specifically, the focus is on identifying the difference between a photon following a helical path (characterized by a circular trajectory) versus a photon behaving like a traditional wave (depicted by a linear trajectory) when interacting with a surface.

Experimental Setup:

1. **Photon Source and Polarization:**
   The experiment begins with a photon source (laser) that emits photons within a defined frequency range. The photons are then directed through a polarization filter that ensures a consistent direction for their wave orientation. This polarization is crucial for maintaining control over the wave-like behavior of the photons.

2. **Defining the Perimeter:**
   The photons are fired from a specific **perimeter** within the defined **diameter of the wave amplitude**. This ensures that each photon is emitted from different positions within the wave's amplitude (from the trough to the crest) rather than from the same point. By doing this, we aim to measure how the position within the amplitude influences the photon's final trajectory.

3. **Surface Interaction:**
   The photons are then directed towards a flat surface. Depending on the photon’s behavior (wave or helix), different patterns will emerge on the surface:

   - **Wave Behavior:** A photon will produce a linear streak on the surface, with the length of the streak being proportional to the amplitude of the wave.
   - **Helix Behavior:** A photon following a helical trajectory will create a circular pattern on the surface, with the diameter of the circle being determined by the wavelength and frequency of the photon.

4. **Surface Resolution and Data Collection:**
   The surface need not be perfectly flat or precise, as the pattern will become clearer over time with the repeated interaction of photons. The surface will be continuously illuminated with photons emitted from different positions within the wave's amplitude. As more photons interact with the surface, the overall pattern will emerge, whether it is a linear streak (wave) or a circular pattern (helix).

5. **Time-Dependent Observation:**
   The data will be collected over time to account for the varying positions of photon emissions within the wave's amplitude. By continuously tracking the photon impacts, we aim to reconstruct the complete pattern and differentiate between the two behaviors (wave or helix). Advanced detection equipment will be used to record the time and location of each photon impact on the surface.

Expected Results:
The experiment aims to confirm whether the photon’s behavior follows a wave-like trajectory,

represented by a long streak, or a helical trajectory, represented by a circular pattern. This would offer a direct visual and measurable distinction between the two possibilities.

Significance:
The outcome of this experiment could provide insights into the true nature of photon trajectories and potentially offer evidence for understanding the fundamental properties of light, including wave-particle duality, in more complex, controlled environments.