

10 Robust Reasons Why the Photon is the Building Block of the Universe

Gh. Saleh

Saleh Research Centre, Netherlands

1. Structure and Properties of Electrons, Protons, and Neutrons

Just as galaxies and atoms possess inherent structures, so too do electrons, protons, and neutrons. According to previously published papers on the Saleh Theory, the structures of these three fundamental particles are described based on their properties, with each being composed of a fundamental unit: photons.

2. The Existence of Discrete Energy (Consistency with Quantum Theory)

In line with quantum theory, energy is not continuous but exists as discrete packets. The Saleh Theory posits that the discrete energy observed in all energy transfers during the formation or collapse of structures are precisely the photons that initially formed these structures.

3. Explaining the Unification of All Forces

Building upon earlier Saleh Theory papers, if we consider photons as the foundational building blocks of all matter, it becomes straightforward to demonstrate the unity of the four fundamental forces.

4. Explaining the Unification of All Energies

Similarly, if photons are considered the fundamental building blocks of all matter, the Saleh Theory allows for the straightforward demonstration of the unity of all energy forms in the universe.

5. Internal Activities of Stars and Photon Emission

Observing the internal activity of stars, essentially their "burning," reveals that a vast amount of the star's mass is constantly being converted into photons that are emitted. This suggests that during this process, mass is transforming back into its constituent building blocks: photons.

6. Observation of Photons in Nuclear Explosions

The fission of large atomic nuclei, like uranium, releases an immense amount of energy and an extraordinary amount of light in a fraction of a second. This substantial energy and light originate from the release or breakage of atomic nuclei (protons and neutrons), consistent with photon emission.

7. Photon Emission in Electron Excitation and Return to the Ground State, Proton Collisions, and Beta Decay

When electrons are excited and return to their ground state, during the collision of two protons, or in beta decay (where a neutron decays into an electron and a proton), photons are released.



This implies that all these processes involve structures fundamentally composed of photons.

8. Formula: $E = mc^2$

Famous formula $E = mc^2$ can be interpreted as follows: since any mass reaching the speed of light converts into energy, it suggests that all mass is inherently composed of photons from its very beginning.

9. The Big Bang Phenomenon

The Big Bang phenomenon, where an immense amount of energy was released in a small space, followed by the formation of particles like electrons, protons, neutrons, and subsequently atoms and molecules, implies that all these entities originated from a single, identical source: photons. Therefore, the photon is the building block of the universe.

10. The "Theory of Everything" Equation

The "Theory of Everything" formula ($E = N \cdot s$; $N \in \mathbb{N}$; $s = \frac{1}{2} m_p (3.3 C)^2 = 8 \times 10^{-19} J$), would demonstrate that all its parameters, including mass, speed, and frequency, relate to photons and their various states. This specific formula, in essence, would assert that the photon is the fundamental building block of all existence, where its mass and speed are constant, and the only true and impactful variable is the number of photons.

References:

- [1] Saleh, Gh. "A New Definition for the Theory of Everything Based on Quanta of Energy." Saleh Theory, 04 Jul. 2025, <https://www.saleh-theory.com/article/a-new-definition-for-the-theory-of-everything-based-on-quanta-of-energy>
- [2] Saleh, Gh. "A New Explanation for the Nature of Energy and Force in the Universe Part A: Energy." Saleh Theory, 04 Jul. 2025, <https://www.saleh-theory.com/article/a-new-explanation-for-the-nature-of-energy-and-force-in-the-universe-part-a-energy>
- [3] Saleh, Gh. "A New Explanation for the Nature of Energy and Force in the Universe Part B: Force." Saleh Theory, 04 Jul. 2025, <https://www.saleh-theory.com/article/a-new-explanation-for-the-nature-of-energy-and-force-in-the-universe-part-b-force>
- [4] Saleh, Gh. "Introducing Photon as the Basis of the Theory of Everything." Saleh Theory, 31 May. 2025, <https://www.saleh-theory.com/article/introducing-photon-as-the-basis-of-the-theory-of-everything>
- [5] Saleh, Gh. "Discovering the True Nature of Forces and Energies (The Unity of All of Them)." *APS March Meeting Abstracts*. Vol. 2024. 2024.
- [6] Saleh, Gh. "New Discoveries in Quantum and the Theory of Everything (2025)." Saleh Theory, 15 Dec. 2024, <https://www.saleh-theory.com/article/new-discoveries-in-quantum-and-the-theory-of-everything-2025>
- [7] Saleh, Gh. "New Marvelous and Revolutionary Discoveries About Gravity." Saleh Theory, 08 Nov. 2023, <https://www.saleh-theory.com/article/new-marvelous-and-revolutionary-discoveries-about-gravity>
- [8] Saleh, Gh. "The Theory of Everything and Its New Mathematical and Physical Explanation." *APS New England Section Fall Meeting Abstracts*. 2023.



- [9] [Saleh, Gh. "The structure and shape of the Electron." *APS Division of Atomic, Molecular and Optical Physics Meeting Abstracts*. Vol. 2022. 2022.](#)
- [10] [Saleh, Gh. "Up-Photon \(From Photons to Electrons\)." *The 83st Japan Society of Applied Physics \(JSAP\) Autumn Meeting 2022*. 2022.](#)
- [11] Saleh, Gh. "Discovering the True Nature of Forces and Energies (The Unity of All of Them)." Saleh Theory, 04 Aug. 2022, <https://www.saleh-theory.com/article/discovering-the-true-nature-of-forces-and-energies-the-unity-of-all-of-them>
- [12] [Saleh, Gh. "Mathematical and physical explanation of the theory of everything." *APS April Meeting Abstracts*. Vol. 2022. 2022.](#)
- [13] [Saleh, Gh, M. J. Faraji, and Reza Alizadeh. "The structure of an electron and calculation the actual energy of that." *2021 Meeting of the Division of Particles and Fields of the American Physical Society \(DPF21\)*. 2021.](#)
- [14] [Saleh, Gh, and M. J. Faraji. "The structure of a photon, a new atom which is the primary building block of all matter." *52nd Annual Meeting of the APS Division of Atomic*. 2021.](#)
- [15] [Saleh, Gh, R. Alizadeh, and H. A. Boshaghi. "The new structure \(external and internal structure\) for the proton, as a subatomic particle and its nature." *APS Texas Sections Fall Meeting Abstracts*. 2021.](#)
- [16] Saleh, Gh. "New Discoveries About Gravity?!!! 2." Saleh Theory, 12 Dec. 2021, <https://www.saleh-theory.com/article/new-discoveries-about-gravity-2>
- [17] Saleh, Gh. "New Discoveries About Gravity?!!!." Saleh Theory, 07 Nov. 2021, <https://www.saleh-theory.com/article/new-discoveries-about-gravity>
- [18] [Saleh, Gh, et al. "Superstring Theory & The Structure of Electron, Proton and Neutron." *APS Division of Nuclear Physics Meeting Abstracts*. 2020.](#)
- [19] [Saleh, Gh, and M. J. Faraji. "Photon, a new atom \(Primary building blocks of Electrons, Protons and Neutrons\)." *Joint Fall 2020 Meeting of the Texas Sections of APS*. 2020.](#)
- [20] [Saleh, Gh, et al. "Structure of electrons, protons and neutrons." *4th International Conference on Atomic and Nuclear Physics*. 2018.](#)
- [21] [Saleh, Gh, et al. "The Superstring Theory and the Shape of Protons and Electrons." *MATTER: International Journal of Science and Technology* 4.2 \(2018\): 149-157.](#)
- [22] Saleh, Gh. "Structure of Neutron." Saleh Theory, 20 Oct. 2017, <https://www.saleh-theory.com/article/structure-of-neutron>
- [23] Saleh, Gh. "Structure of Proton." Saleh Theory, 18 Sep. 2017, <https://www.saleh-theory.com/article/structure-of-proton>
- [24] Saleh, Gh. "The Actual and Realistic Structure of Electron." Saleh Theory, 08 Aug. 2017, <https://www.saleh-theory.com/article/the-actual-and-realistic-structure-of-electron>

