Georges Lemaître: Father of the Big Bang Theory

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Early Life
Early Life

- Georges Lemaître was born on July 17, 1894, in Charleroi, Belgium in a devoutly Catholic Family.
- He was the oldest among his four siblings.
- Lemaître declared at age nine that he wanted to become a Priest and a Scientist.
- He enrolled in the Jesuit High School of the Sacred Heart in Charleroi the following year, where his teachers noticed he did extremely well in arithmetic, physics, and chemistry.
Early Life (cont.)

- Georges' father changed jobs in 1910, so the family moved to Brussels, the capital of Belgium.
- Georges, sixteen at the time, enrolled in College Saint Michel, another Jesuit institution.
- Georges Lemaitre enrolled in the Catholic University of Louvain in 1911 to pursue an engineering degree.
- However, World War I started in 1914 when he was still a college student.
World War 1
World War I

- Georges Lemaître and his younger brother, Jacques, were enlisted in the Belgium Army as Artillery Officers.
- Lemaître's comrades were astounded by his capacity to block out the horror, brutality, and death that surrounded him during trench warfare and to read physics textbooks whenever he had the opportunity.
- That ability characterized Lemaître's systematic way of living.
- Lemaître and his younger brother survived when the war ended in November 1918.
- Lemaître received the Belgian War Cross for his bravery on the Battlefield.
Post War 3
Post War (cont.)

- Georges Lemaître gave up engineering to follow his goals after the war. He enrolled at the Catholic University of Leuven to pursue a graduate degree in mathematics and physics.
- He received the highest honor of Doctor of Science in Mathematics in 1920, at 26.
- After Lemaître went to Seminary School and was ordained a Priest three years later.
Lemaître in the U.S.
Lemaître in the U.S.

- Lemaître traveled across the Atlantic to conduct research at Harvard University and to MIT, the Massachusetts Institute of Technology, where he registered as a candidate for a Ph.D. in physics.
- He visited a number of the nation's leading physicists and astronomers when he was there, including Edwin Hubble, Robert Millikan, Forest Ray Moulton, Vesto Slipher, etc.
Lemaître proposes the Big Bang Theory
Lemaître Proposes the Big Bang Theory

- Lemaître theorized in 1931 that the universe might have started as a "cosmic egg," a single atom in which all of the universe's mass was compressed before it burst open due to the same factors that make huge atoms radioactive.

- Many Scientists were skeptical about this theory. They also thought he was biased because of his beliefs.

- However, once Lemaître explained his theory in detail to Albert Einstein, he stated “This is the most beautiful and satisfactory explanation of creation to which I have ever listened.”
Lemaître Proposes the Big Bang Theory

- The Big Bang theory aligned with the biblical narrative of the creation of the world, so the Catholic Church found it appealing.
- Lemaître himself did not try to establish this kind of relationship since he thought his scientific endeavors and his religious beliefs should be handled apart.
Later Years
Later Years

- At seventy years old, Lemaître had a heart attack in December 1964 and retired.
- On June 20, 1966, Georges Lemaître, then 71 years old, passed away in Leuven, Belgium, from leukemia.
- He was buried to rest in the Marcinelle cemetery.
- He was informed shortly before passing about the cosmic microwave background radiation discovery by scientists Arno Penzias and Robert Wilson, which offered compelling proof that the universe began with his theory, the Big Bang.
