



Father Georges LeMaître: Introduction to a Great Priest-Cosmologist

In 2015 I was privileged to be able to contribute to a special issue of *StAR* devoted to the late and great priest physicist, Father Stanley Jaki, OSB, with whom I had the great fortune to work for five years, from 2004 until his death in 2009. In that issue of *StAR* I both wrote an article and helped to edit a number of others written upon various aspects of Father Jaki's work. Now, I have been again fortunate, thanks to the generosity of the editor of *StAR*, Joseph Pearce, in being able to help to put together a series of articles on another great priest scientist, Father Georges LeMaître and his outstanding achievement in formulating the Big Bang hypothesis. The year 2016 was the fiftieth anniversary of his death, so we are just behind with our tribute, but it is certainly one well worth making nevertheless.

The following articles examine Father LeMaître's contribution to science and also reflect on the theological implications of that work. It seems logical, however, to start with a brief account of Father LeMaître's life, a full account of which can be found in Joseph Laracy's article "The Faith and Reason of Father Georges LeMaître", in the *Homiletic and Pastoral Review* for February 2009, which is to be highly recommended.

Georges (Henri Joseph Edouard) LeMaître was born in Charleroi, Belgium on July 17, 1894. His parents were Joseph and Marguerite LeMaître (*née* Lannoy), both Catholics. LeMaître's early education took place at his parish elementary school followed by the local Jesuit high school. On his graduation from the latter, LeMaître discerned a vocation both to the priesthood

and to the profession of a research scientist. In 1913 he earned his bachelor's degree in mechanical engineering from the University of Louvain and began work as a mining engineer. By this time he had also become well read in both philosophy and religion. In 1914 World War I broke out and LeMaître served in the Belgian army. He earned three citations for bravery.

After the war he earned both a BA in mathematics and a BA in philosophy at the University of Louvain. In 1920, he completed a PhD in mathematics *summa cum laude*. He turned down the possibility of an academic career and applied to study for the priesthood. He was admitted to Maison Saint Rombaut, the major seminary of the Archdiocese of Malines. However, he did continue in his leisure time to engage in scientific reading, most notably the theories of special and general relativity. He was ordained to the priesthood by Archbishop Mercier, his spiritual director, on September 23, 1923.

The now Father LeMaître was allowed to continue his scientific research at Harvard, in addition to which he earned a PhD in physics from the Massachusetts Institute of Technology. He was then appointed associate professor of mathematics at the College du Saint Esprit.

As stated earlier, Father LeMaître's achievements are examined in the following articles and they are far reaching. There is of course, in addition, the well-known story of one of his encounters with Albert Einstein (others are mentioned in the following contributions). This one took place in 1933. On this occasion Einstein was

scheduled to deliver a series of seminars in Belgium, but after the second he announced that Father LeMaître would be delivering the last one. Einstein told the audience that LeMaître "has interesting things to tell us" and at the end of the seminar, his expressed judgment was: "Very beautiful, very beautiful indeed." Shortly afterwards Father LeMaître was appointed as a visiting professor of physics at the Catholic University of America.

Father LeMaître's scientific career proceeded apace and he won several honors, culminating in the Francqui Prize. In 1936 Pope Pius XI appointed him to the newly-established Pontifical Academy of Sciences. A visiting professorship at the University of Notre Dame followed.

When World War II broke out Father LeMaître was in Belgium at the University of Louvain. He and several relatives attempted unsuccessfully to flee to France. The university was burned to the ground by the Germans. When Father LeMaître's apartment was hit by shell fire, he suffered shock and multiple contusions. At the end of the war he lived with and cared for his mother until she died in 1956.

In 1960 Pope John XXIII gave Father LeMaître the title of Prelate in the Papal Household, making him a monsignor. He was later appointed president of the Pontifical Academy of Sciences, which he greatly developed.

In 1965 Father LeMaître suffered a heart attack, which seriously weakened him, and he died on June 20, 1966 in Louvain, Belgium. It is no exaggeration to say that he made numerous, lasting contributions to

science and to the relationship between science, philosophy, and religion. On the scientific level, the verdict of the great physicist Paul Dirac captures the importance of the work of Father LeMaître:

The measure of greatness in a scientific idea is the extent to which it stimulates thought and opens up new lines of research. In these respects we must rate LeMaître's cosmology of the highest caliber.

However, there is another level, a more spiritual one, and Father LeMaître's contribution here is captured by Joseph Laracy in the article referred to above:

Perhaps his greatest gift was the witness he gave as a Catholic priest, living every day the life of the mind and spirit, doing cutting edge science alongside his priestly duties. In every regard, he was unique. His life gives testament to the fact that when one trusts in God, giving one's life as a total gift, the Lord does wonderful things.

In these days when the Church is under virtually unceasing attack from secularist forces, it is important to proclaim the fact that far from being anti-science, as so many media outlets claim, the Catholic Church

has contributed massively to the development of so many areas of scientific work. Not only that, but what is truly remarkable is that Father Georges LeMaître is one, albeit a very important one, of numerous examples of priests who have contributed significantly to the body of scientific knowledge. If the Big Bang theory is the cornerstone of modern cosmology, genetics is a cornerstone of modern biology. Yet, genetics was also invented by a priest, the Augustinian Gregor Mendel (1822-1884). A former director of the Vatican Observatory for a period of twenty-eight years, Father Piero Angelo Secchi, SJ (1818-1878), was a pioneer of astrophysics, who developed instruments for splitting the light from stars into spectra, making it possible to study and classify stars as physical systems. Father Nicholas Steno (1638-1686) was both a pioneer in anatomy and one of the founders of geology (the father of stratigraphy, the study of rock strata). He was also a bishop in his later years. Father Roger Joseph Boscovich, SJ (1711-1787), undoubtedly a polymath, was the father of field theory, a key tool of modern physics, which can be traced to his *Theory of Natural Philosophy* (1758). Another priest, Giuseppe Piazzi (1746-1826), a mathematician and astronomer, discovered the dwarf planet Ceres in 1801. Then there was Father René Just Haüy (1743-1822), the

father of crystallography, and Father Nicholas Callan (1799-1864), a pioneer of electronics, best known for his work on the induction coil. As if this were not enough, one must mention another Jesuit priest, Father Theodore Wulf (1868-1946), one of the pioneers of early work on cosmic rays. The Jesuits in particular contributed heavily to the fields of astronomy and seismology, the latter to such an extent that it is sometimes referred to as "the Jesuit science".

Father LeMaître's own contribution is becoming recognized more and more as being a vital part of the development of the subject-matter of the science of cosmology and in view of the fact that many of the so-called New Atheists concentrate on this field of study, it is very important for Catholics to publicize to the greatest extent possible the great work of Father LeMaître.

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New Voices

New Poetry in English



Myopia

James Skene

My literature professor said, "Everything's a text."
The Freudian Psychologist thought everything was sex.
A physicist materialist insisted, "All is matter!"
Do bakers think all that exists is rising in a batter?

Good Shakespeare wrote, "the world's a stage"—a playwright and an actor.
He too was subject to this rage—this occupational hazard,
That makes computer programmers say, "All is code!" instead.
While idealist philosophers think "All" is in their head.

I might hear out a plumber who suggested "Yep, all water."
I understand a mother whose whole world's her lovely daughter.
To hear a saner view of things I found her four year old.
She sleeps and plays and eats and sings, "The whole world's made of gold!"