

PRESS RELEASE

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Vatican Observatory and St. Edmund's College celebrate the "Big Bang" theory's Mgr. Georges Lemaître and his study of the Universe.

A century ago, a newly-ordained priest began his scientific journey at St. Edmund's College of the University of Cambridge (UK). Vatican Observatory Director Br. Guy Consolmagno, S.J. recently celebrated at St. Edmund's not only this priest, the Belgian physicist Georges Lemaître, but also the "Big Bang" theory he developed. Consolmagno delivered the 2024 Von Hügel Lecture on November 20 to a capacity audience, focusing on Mgr. Lemaître in a lecture entitled "Why Do We Look Up?: An Astronomer's Reflection on the Universe and the Call to Study It".

Georges Lemaître, born in 1894, studied engineering, mathematics, physics, and philosophy at the Catholic University of Louvain and the Maison Saint-Rombaut seminary—studies that were interrupted by the First World War and his service in the Belgian Army. He was ordained as a priest of the Archdiocese of Mechelen in September 1923. He promptly went to St. Edmunds, arriving in October. St. Edmund's had been founded in 1896, the only full College in Cambridge with a post-Reformation Roman Catholic founding (until 1871 Roman Catholics and other religious minorities were not allowed full membership of the University of Cambridge as students).

Mgr. Lemaître was at Cambridge for less than a year, working with Arthur Eddington. Eddington is perhaps best known today for his work using a 1919 total eclipse of the sun to test whether gravity would deflect the light of stars, as Albert Einstein's Theory of General Relativity predicted. Lemaître said Mass daily in the St. Edmund's chapel, which still stands. In 1924, Lemaître published a paper on "The Motion of a Rigid Solid according to the Relativity Principle", with endorsement from Eddington.

Mgr. Lemaître would continue his scientific journey after St. Edmund's. In 1927, he published "Un Univers homogène de masse constante et de rayon croissant rendant compte de la vitesse radiale des nébuleuses extragalactiques" ("A homogeneous Universe of constant mass and growing radius accounting for the radial velocity of extragalactic nebulae")—

the paper that used Einstein's ideas to outline what is now popularly known as the "Big Bang Theory". Lemaître proposed that the observed behavior of galaxies was the result of an expansion of the universe implied by General Relativity. He would later propose that the universe expanded from a "primeval atom", starting from a "first instant at the bottom of space-time, the now which has no yesterday".

Consolmagno noted that Mgr. Lemaître violated what is called "the cosmological principle"—the idea that no place in the universe, and no time, is different from any other place or time. Lemaître's theory indicated a starting point in time, a time different from all other times. Worse, Consolmagno said, it smacked of identifying this starting point with the Genesis story of creation—a "first day". The fact that Lemaître was a Catholic priest made this notion even more suspect. Even though Lemaître himself was careful never to make such an identification, some thought he was looking for a "creatio ex nihilo" theory, in resonance with the passage from 2 Maccabees (7:28), "look at the earth and sky and everything in them, and consider how God made them out of what did not exist." In the Soviet Union, for example, there were complaints that, "The reactionary scientists Lemaître ... and others made use of [galaxies] in order to strengthen religious views on the structure of the Universe.... Falsifiers of science want to revive the fairy tale of the origin of the world from nothing."

Over time, complaints such as these could not overcome the accumulating weight of scientific evidence. Today Mgr. Lemaître's theory has become scientifically dominant. Thus, the coming years will see opportunities to celebrate multiple Lemaître centennials, each of which will represent an intersection of science, history, and religion. Given that the Von Hügel Lectures (of St. Edmund's Von Hügel Institute for Critical Catholic Inquiry) are intended to showcase interdisciplinary thinking, the 2024 lecture was the perfect occasion to mark the first of these centennials, which had also been marked by a Lemaître conference at the Vatican Observatory during the summer. Mons. Georges Lemaître looked up, and answered the call to study the Universe.

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IMAGES

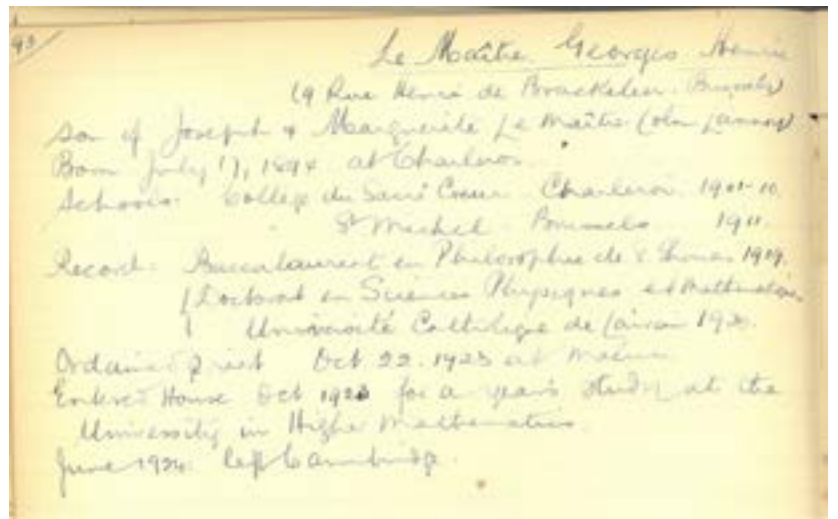


IMAGE 1: Student Register record from the St. Edmund's Archives, noting Mgr. LeMaitre's background and that he arrived in October 1923 for study in "Higher Mathematics" and that he departed Cambridge in June of 1924. Credit: St. Edmund's College.



IMAGE 2: The Chapel at St. Edmund's College, Cambridge, where Mgr. LeMaitre celebrated mass. Credit: St. Edmund's College.



IMAGE 3: Mgr. Georges Lemaître in the early 1920s. Credit:Wikimedia Commons.



*IMAGE 4: Vatican Observatory Director Br. Guy Consolmagno, S.J. speaking at St. Edmund's College, Cambridge.
Credit: Tristan Selden.*