The Long Farewell
to the Big Bang Model of Cosmology

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http://mugglebibliothek.de/EU/

Summery: *The article deals with the background to the failure of physics in the 20th century and why it is so important to work out a new physical worldview. The cosmos is to be understood as an open system, not as an inflating ball. This knowledge has a direct bearing on the understanding of the sun and thus also on its reproduction in the laboratory, which can possibly provide us with a clean energy source for the future with which we can be able to achieve the energy transition from the fossil carbon age to the hydrogen age, because to just burn the hydrogen, it is too expensive to extract it.*

Cosmology is the study of the world, of the origin, development and structure of the cosmos. If we allow the cosmos to develop, we cannot know anything about the origin. The current structure, however, can be seen. But inferring the initial state from the current structure only works with time-independent processes, such as a Markov process, since a time can be reversed there. This is not possible with a development process. Every engineer knows that you cannot deduce from the final state to the beginning, just as little as you can still recognize the horse-drawn carriage in a modern automobile. The assumption of an initial state belongs to the realm of belief in a religion. Besides, what time is valid in the cosmos?

Time is relative, so you have no absolute start of.

Religions are static, but our knowledge grows dynamically with our failure and our successes in mastering nature, in short the development of technology, because the technical replication of elements of nature are the ultimate proof of our understanding of how they work. How can we then succeed in reconciling belief in a religion with science? Our faith ends where knowledge begins. Fewer and fewer functions of nature are expected of gods today and more and more functions are recognized and thus become the responsibility of mankind.

A hundred years ago, George Lemaître, a Belgian priest, was inspired by the belief that this reconciliation might succeed, because at the beginning of the 20th century there were two currents in the Catholic Church. One wanted a liberalization of religion and the other wanted to reconstruct old power structures, as it is expressed in the encyclical of Pope Pius X. Of course, the authority to interpret the sky was one of the most important goals. It was not about the unreserved exploration of the cosmos, but about the integration of scientific discoveries into the thought structure of the Christian doctrine of creation, whereby the scientists consciously found support and recognition that best corresponded to this idea. They were added in recognition of their services in the 1936 by Pope Pius XI. newly founded Pontifical Academy of Sciences.[1]

On the other hand, at the beginning of the 20th century, electromagnetism was so well researched that it could be transferred to technical applications. However, the application was still based on the large-scale charge separation by means of mechanical power largely by burning fossil fuels, which has developed into a serious problem in the last century, as the released CO_2 and fine dust

1 http://www.pas.va/content/accademia/en/magisterium/piusxi.html

increasingly influence the earth's climate. We have to manage charge separation without fossil fuels. At the same time, two worldviews competed, the electromagnetic of James Clerk Maxwell and the mechanical-gravitational worldview of Isaac Newton.

While the electromagnetic worldview of the 19th century brought us from the energy industry to microelectronics an unprecedented level of prosperity, the advances on the basis of Newton's gravity seem rather modest, because the question of why the moon and the space probes are not on the earth falling back, but swinging into an orbit, cannot be explained mechanically satisfactorily. Nevertheless, the worldview that was developed at the Solvay Conferences from 1911 is still adhered to today, although so many discoveries have been made since the beginning of space travel history that do not fit this picture. We have to ask why this is so.

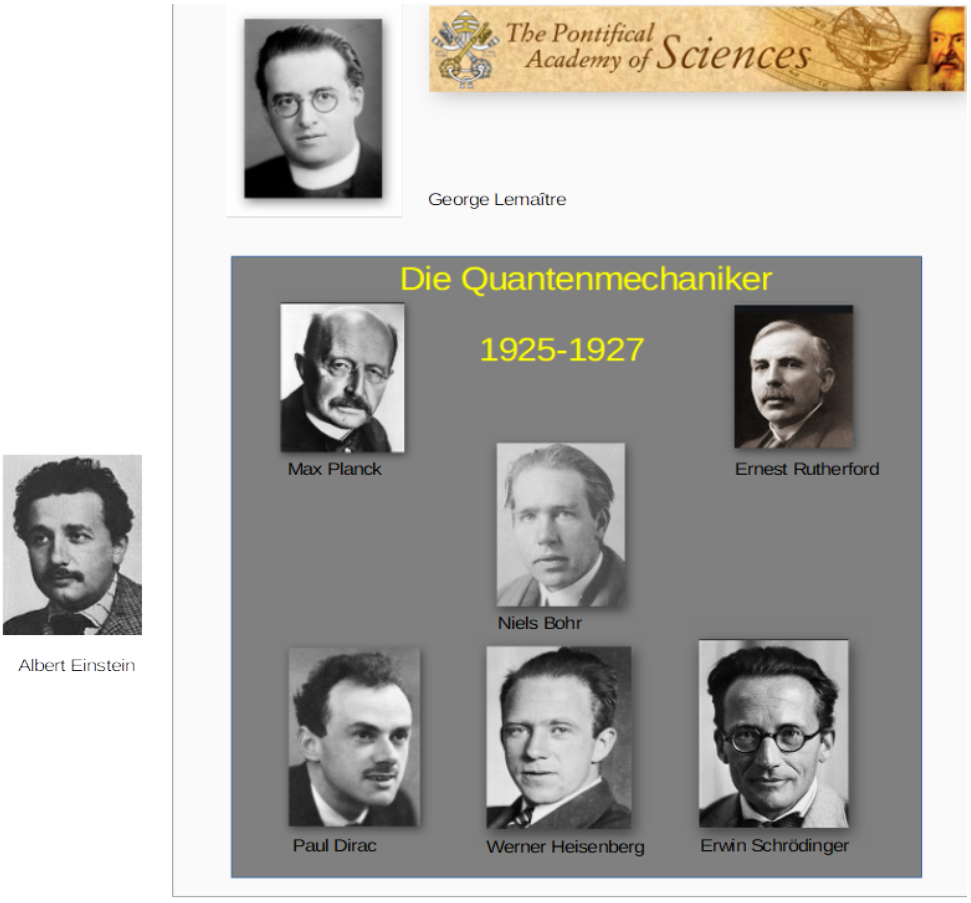


Fig 1: Einstein and the Pontifical Academie

You have to know that philosophy at the turn of the 20th century was shaped by subjective idealism. The mysticism of the virgin birth was promoted by Lemaître and replaced by a mathematical mysticism. Paul Dirac was one of the most prominent exponents of this mystification, who, although an avowed atheist, was a member of the newly founded Pontifical Academy of Sciences from the beginning until his death. Mathematics took the place of religious belief and with it symmetry as an expression of beauty. "*It is more important to have beauty in your equations than*

agreement with the experiment", Paul Dirac once formulated his credo in "Scientific American"[2]). Dirac even spoke in this context of God, whom he considered to be a "highly brilliant mathematician". Wolfgang Pauli once put it: *"Our friend Dirac has a religion, and its motto is: There is no God, and Dirac is his prophet"*. He became the creator of a number of physical phantoms, the existence of which in some cases has even been allegedly proven, such as the spin from the Dirac equation and the neutrino in the radioactive decay of the neutron. So it came about that relativity theory and quantum mechanics emerged as intellectual fantasy products, were recognized as established theories, and in retrospect they tried to interpret the equations physically.

In a conversation with Einstein, Heisenberg admitted that one does not yet know how the mathematical formulation of quantum mechanics relates to natural language, because one would talk about the experiments with natural language.[3]) The Dirac equations of quantum mechanics are based on the special theory of relativity, the basis of which is the Lorentz transformation of Maxwell's equations, whose sole purpose for Albert Einstein was to symmetrize these equations. This symmetrization is a physically completely nonsensical operation, since it destroys the character of the equations, namely to describe the propagation of electromagnetic waves.

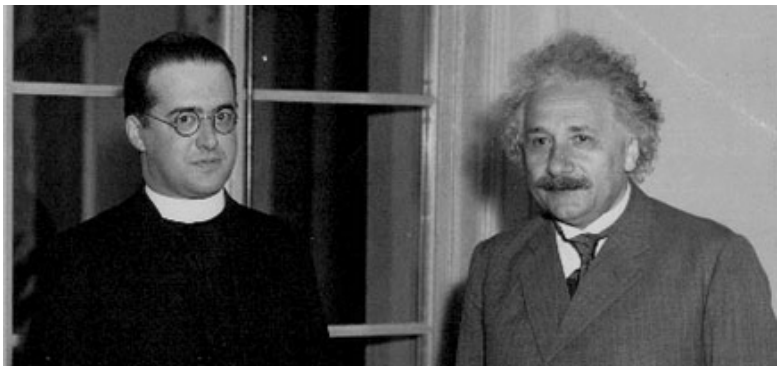


Fig 2: Lemaître and Einstein

As a second "stroke of genius" Albert Einstein invented the curvature of space through gravity, because he could not explain how celestial bodies are kept on their orbit. Einstein himself must have taken it as a joke, because he confessed to his friend Paul Ehrenfest: "I've already done something wrong in the theory of gravity, which puts me at risk of being interned in a madhouse."[4]) Only anyone who knows something about physics and geometry knows that curvatures can only be observed on surfaces and that light rays are influenced in their direction by diffraction due to optical effects.

Whole generations of physicists seem to have no longer learned the difference between a surface and a space. Physically, a surface presents itself as a phase boundary between two different states of

2 Paul Dirac - *The Evolution of the Physicist's Picture of Nature;* Scientific American Vol. 208, No. 5 (May 1963), pp. 45-53 (9 pages) Published By: Scientific American, a division of Nature America, Inc. https://www.jstor.org/stable/24936146

3 Werner Heisenberg - „*Quantentheorie und Philosophie*“, Reclam Universalbibliothek ISBN 976-3-15-009948-3, p.36

4 Albert Einstein – Brief an seinen Freund Paul Ehrenfest http://alberteinstein.info/vufind1/images/einstein/ear01/view/1/9396_000003544.pdf

matter. Furthermore, they seem to have forgotten that time is never independent of the path, which is why there cannot be a four-dimensional world, but there can be a process in which there are sequences of States there. [5]) Only surfaces con be curved.

Spacetime are space and time not a four dimensional space

Time in contrast is a number of motion cycles that are counted and that are synchronized with the movement of the earth around its axis. Unlike the path on which it is based, it has no direction. Where one begins to count the cycles is left to the discretion of the observer, consequently the time is relative. Einstein once remarked that time is what clocks indicate, with which he expressed the relativity of time. Relativity means that a relation, i.e. a relationship, is established between the observer and the observed phenomenon. No more and no less.

Therefore appearances can be perceived differently from different points of view, although they themselves are unchanged. So if you perceive an object in the distance as smaller, it is not due to physics, but to the optics of your perception. The Lorentz transformation does the same with Maxwell's equations, which is why this figure shows time and distance distortions. As Albert Einstein said: *"You can fool of yourself with mathematics."*

Physicists have learned to solve equations, but apparently they have not been taught what they mean since Dirac and Heisenberg. No, visual perception wasn't trained when I was studying physics half a century ago. So they tried using mathematics, believing that mathematics was not language but reality, to construct an illusory world for which they were looking for evidence in reality. But because this leads to contradictions again and again, new phantoms have to be invented, for the existence of which further evidence was sought in reality without being bothered by the fact that this evidence had already been used up for other phenomena. We have recently started calling something like this ‘alternative facts’.

Fig 3: The Pius XII - Lemaître Affair 1951

Mathematics is a language intended to describe real things and appearances.
Alternative facts can also be invented with a language.

5 Mathias Hüfner - *The cosmos in the light of systems theory;* http://mugglebibliothek.de/english/index_htm_files/kosmos-system-engl.pdf

One of the most spectacular examples of this alternative facts is the black hole, which repeatedly stimulates people's fantasies. Einstein's equation of general relativity has a pole, which is interpreted as a point of maximum gravity, which should be so strong that it would not even let the light escape. This belief was triggered because they could not explain why galaxies do not obey Newton's equation of gravitation, but must contain much larger forces in order to explain their rotational speeds at the edges. To resolve this contradiction, the black hole, dark matter and dark energy were invented. But these terms do not say anything more than something invisible, mysterious exists that cannot be described with the known laws of physics. Really not?

According to Newton's particle theory, light would consist of photons and be trapped in a black hole and they would be deflected in strong gravitational fields. We know light deflection as an optical phenomenon resulting from wave diffraction or refraction at phase boundaries between an optically thinner and an optically denser medium. But this has nothing to do with gravity, but with the optical density of the medium in the vicinity of plasma balls. In terms of radiation, black is an absorption range of around 400 nm to 780 nm. Why should this area be preferred by gravity, or should this phenomenon be extended to the entire electromagnetic spectrum? That would mean that in the vicinity of a black hole not even thermal radiation should occur. In other words, since we can only learn something about the existence of cosmic objects through electromagnetic radiation, their existence would not be verifiable, because forces, if they can be measured, only reveal direction and strength, but not the nature of their origin.

The decades-long dispute between Leonhard Susskind and Stephen Hawking turning the question of whether information can be retained in a black hole was also spectacular. This question is pretty academic. The question becomes easier to understand if you remember that light contains information about its light source in the form of a spectrum. If this information is not retained, it means that the light source is no longer lit, i.e. does not emit any electromagnetic radiation. But as long as charges cross a force field, they absorb or emit radiation and thus information. That would mean, however, that the entropy would decrease, since the order would increase with the decrease in the movement of the atoms, which would contradict the 2nd law of thermodynamics in a closed system.

This dispute is recorded in the book *The Black Hole War, My Battle with Stephen Hawking to Make the World Safe for Quantum Mechanics.*[6]*)* This dispute continued for many years and ended in 2014 with Hawking's admission that there are no black holes.[7]) Notwithstanding this, the 2020 Nobel Prize in Physics was awarded "*for the discovery that the formation of black holes is a robust prediction of general relativity*". You rub your eyes in amazement. Has the Black Hole War and its end eluded the Nobel Committee, or was the celebrated astrophysics star Hawking, posthumously disqualified as a dabbler? No, the general theory of relativity has become the foundation of the Catholic worldview and what would happen if this foundation would crumbled? How much research capacity would then be free for other tasks?

The cosmos is an Open system

6 Leonard Susskind - *The Black Hole* War, *My Battle with Stephen Hawking to Make the World Safe for Quantum Mechanics.* https://www.amazon.de/Black-Hole-War-Stephen-Mechanics/dp/0316016411

7 Stephen Hawking - I*nformation Preservation and Weather Forecasting for Black Holes* https://arxiv.org/abs/1401.5761

Yet Pope Francis himself undermined this very foundation when he wrote in paragraph 79 of his 2015 encyclical: »*In this universe made up of open systems that communicate with one another, we can discover innumerable forms of relationship and participation.*«[8]) But physicists understand the universe and black holes as closed systems, because the theory never spoke of an exit, since according Lemaître the universe expands.

Now we know that information has something to do with entropy and, according to Ilja Prigogine, this applies to the change in entropy in the overall open system

$$dS_{System} = dS_{inp} - dS_{out} + dS_{int} = dS_{ext} + dS_{int}$$

For a black hole, $dS_{out} = 0$ because by definition it does not release any entropy in the form of radiation. This means that the total entropy change of the black hole $dS_{System} > 0$ would always be positive. The black hole could not cool down at all, since the total entropy would not decrease at any time, which would prevent the mass from being able to contract, which would be the prerequisite for gravity to grow in a small area. But thermodynamics disturbs the beauty of the symmetry of the equations, which is why relativists and quantum mechanics want nothing to do with it. For the above equation, Prigogine was awarded the Nobel Prize in Chemistry in 1977. Now chemistry, like physics, belongs to the natural sciences. It is assumed that the knowledge of this neighboring discipline should have got around in physics over the past four decades.

But what is then in the center of a galaxy if there is no black hole there? Huge electrical currents flow in the center of a galaxy, which in turn generate huge magnetic fields. These in turn cause a charge separation, which is why we see plasma currents emerging from the center of certain galaxies, which is typical for a plasmoid. Unlike a black hole, a plasmoid is an open system.

No, after the violation of Maxwell's equations by the symmetry fans among the physicists, there must be no electrical currents in the cosmos and before they admit this error, black spots are rather retouched in the images of galaxies at the points of highest luminance, to mark a suspected black hole. Recently, a photo montage of recordings of large radio telescopes of galaxy nuclei has been in the press. If you know that gas molecules radiate in the radio range and have learned that molecules break down through ionization, it soon becomes clear that the molecules are not preserved in the hot glowing center of a galaxy and so the center in the radio range, which is glaring in visible light, comparatively has to emit less radiation. This is how this photo comes about, which depicts a situation that is interpreted completely differently from what it tells the expert.

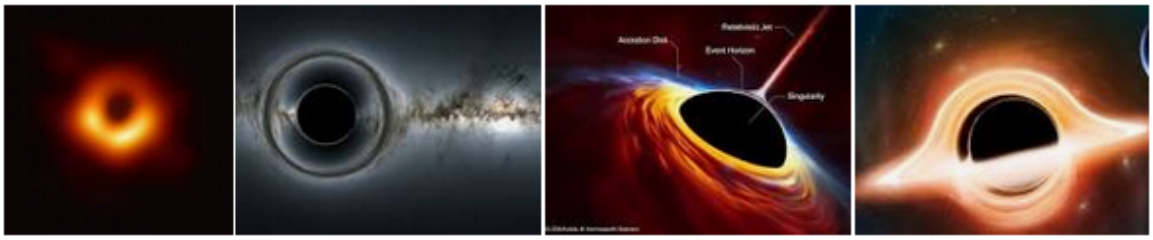
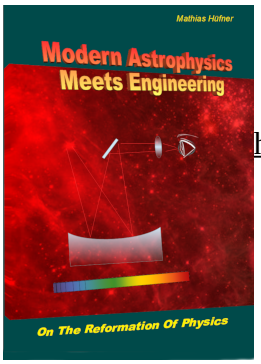


Fig 4: Different Black Hole Fakes

8 Pope Francis - *Encyclical Letter* ***LAUDATO SI'*** ; *Chapter Two - The Gospel of Creation; III. The Mystery of the Universe No. 79* http://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html

There are other examples in the recent history of physics where research results are supposed to support the untenable theories around the Big Bang model of cosmology, such as the alleged proof of gravitational waves from the collision of black holes or neutron stars or the proof of the existence of the so rare god particle (Higgs Boson) that the mass should pass to the other particles. Obviously such people have forgotten that mass is nothing more than an uncountable amount of particles. The term mass therefore becomes superfluous in the area of individual elementary particles.

It is worthwhile to take a closer look in science as well as in other areas. Where there is no control, you always have to expect to be cheated, especially since experiments are so expensive today that independent control is no longer possible in a timely manner. Unfortunately, general knowledge in the natural sciences and especially in physics has steadily declined over the past few decades, which is a fundamental disadvantage for a nation that, like ours, is dependent on education because it has no natural resources and which, under the influence of climate change, has to transform its economy towards clean energy generation. This requires an understanding of how the cosmos and especially the sun work as an open system, and understanding here means the construction of a fusion generator that delivers so much entropy from the fusion of atomic nuclei that a gas turbine can be operated with it. From a thermodynamic point of view, the Tokamak principle is obviously based on a wrong approach, namely that of a closed system in which high temperatures can be reached, but not a higher order, as required by fusion. But that is a topic for another essay.



Book recommendation:

https://www.bod.de/buchshop/modern-astrophysics-meets-engineering-mathias-huefner-9783751920186