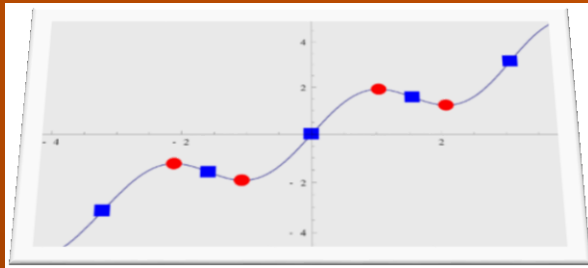


Science Enriched by Philosophy

(Example of Infinitism)

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May 2022

First Version



A production of Center for Research and Development of
Infinitylogy (CRDI)

Introduction

The universe has many surprises to everything that we know and formulate as knowledge and science. In fact, the number of potential discoveries that are waiting for our vigorous curiosity is uncountable. This is the main idea of the *Infinitism* theory that states that *matter is infinitely composite*. This means that whatever is the scope of our findings regarding the material realm, there would be always and at all times further to find.

Infinitism articulates this fact by considering the matter as a composition of three actual realities:

1. Infinite components/subcomponents,
2. Infinite components/subcomponents' interrelations,
3. Infinite ways these interrelations are made.

These three realities intertwine to make exist matter and its manifestations.

But *Infinitism* theory would like to connect with science to check the veracity of its assertions. *Infinitylogy*, as the discipline of knowledge of infinity, makes this scientific assessment of the Infinitism statements.

In order to do so, we continuously look for the publication of the new findings of science and technology and use them to verify the relevancy of the declarations, like the above ones, proposed by the theory of *Infinitism*.

What follows is an example of what we do at present in the *Center for Research and Development of Infinitylogy* (CRDI), through an individual effort, and not yet a systematic way. But later, once we have support and finance for, we will do it thoroughly and regularly.

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This month (May 2022), we learned that the physicists at the Large Hadron Collider (LHC) at CERN are dealing with the new realities coming from different experiments across the world with an interesting suggested output: “the Standard Model of particle physics may be broken”.¹

We have already written about the Standard model and its deficient aspect in our books and papers.² But here, in a new article, Roger Jones, (Professor of Physics and Head of Department, Lancaster University), is telling us that

¹ <https://phys.org/news/2022-05-standard-particle-physics-broken-expert.html>

² For instance in: *Infinitude in Action: Exploration and Utilization of Infinity*, By Korosh Erfani, ILCP Publication House, 2021.

“Recently, however, a series of precise measurements of already known, bog-standard particles and processes have threatened to shake up physics”.

What is this about?

There are “three key findings”:

The first case is that “Detailed studies from the LHCb experiment found that a particle known as a beauty quark (quarks make up the protons and neutrons in the atomic nucleus) "decays" (falls apart) into an electron much more often than into a muon”. What is new in this? He continues: “According to the standard model, this shouldn't happen—hinting that new particles or even forces of nature may influence the process”.

We can see here how the predictions of the Standard model are, once again, challenged by this new discovery.

He then continues: “Meanwhile, the Muon g-2 experiment at Fermilab in the US has recently made very precise studies of how muons "wobble" as their "spin" (a quantum property) interacts with surrounding magnetic fields. It found a small but significant deviation from some theoretical predictions—again suggesting that unknown forces or particles may be at work.”

And finally, regarding the third case he adds:” The latest surprising result is a measurement of the mass of a fundamental particle called the W boson, which carries the weak nuclear force that governs radioactive decay. After many years of data taking and analysis, the experiment, also at Fermilab, suggests it is significantly heavier than theory predicts—deviating by an amount that would not happen by chance in more than a million million experiments. Again, it may be that yet undiscovered particles are adding to its mass.”

Let’s now bring these three points to our targeted verification where we want to see if these findings will shine the light on the assertions of Infinitism. One of our challenge in *Infinitylogy* is to see where we can find the supportive arguments for Infinitism from the field of this or that science. This is a serious methodological challenge to us since if we cannot find that the theory of Infinitism contains an appropriate analytical charter for the studied case, it means that this theory had been missing an aspect of the material phenomena in its philosophical conceptual battery. This will put in question the inclusiveness of this theory.

By doing this verification now and here for these three new finding of physicists, we can see if all of them are included in the three characteristics that *Infinitism* consider as

universal and existentially inherent to any case of matter or not.

Let's double-check these three scientific findings with the three specifics of the matter, enumerated by *Infinitism*:³

1. Where it is said that “beauty quark...decays...into an electron much more often than into a muon”, we are dealing with the way the interrelations between the components and subcomponents (particles) are done.
2. Where it is said that “muons "wobble" as their "spin"...interacts with surrounding magnetic fields... suggesting that unknown forces or particles may be at work”, we have a case of interrelations between the components/subcomponents (particles).
3. And finally, where it is said that “a measurement of the mass of a fundamental particle called the W boson...is significantly heavier than theory predicts... [because the] undiscovered particles are adding to its mass”, we see that some new –yet unknown- subcomponents are in the perspective.

³ One is aware that fact that we have three cases here as “finding” is a pure accident and their match with again three specific of matter is even more so.

We see how the features that *Infinitism* tallies for matter are all present in three findings. Each of them matches, unintentionally, to one of the three features of matter listed above.

Now we can move forward with our verification and see if the main shared characteristic of these three features is there too or not: their infinitude.

One remarks that in all three findings, there is a common denominator: they all put in question the already well-established scientific theories and models regarding the matter and its reality. This challenging trend of experiment vis-à-vis theory is the epistemological basis of Infinitism as well. This latter based its main principle on the following simple idea:

As the history of science shows, with time and along the way, we realize the presence of more and more components, interrelations between components, and the ways these interrelations are taken place. So, if this is a never-stopped and persistent trend in the past and hitherto, why we should not think that it will ever stop. And if it's the case, what is the significance of it on the other side, inside matter? Isn't it that the matter has a

countless number of components, interrelations between the components and the ways these interrelations are made?

This is how the philosophical theory of Infinitism had been triggered, underpinned, and then developed: on the basis of the ruling facts of the science's historical account. And this history is being shaped and unfolding every single day with a few minor, or sometimes, major funding that obeys the same imperative: increasing acquaintance on the fabric of matter and its complexity. It means that if we review permanently what we know about the micro and macrostructures of matter, we will find more details about its compositions and its dynamism.

And finally, the last point is to know what would be the utility of such an undertaking. As *Infinitism* states when we get a deeper knowledge of the matter and its inner configuration, we also discern the new spheres of operation where we can explore opportunities that are subscribed in the farther scaling, compared to the ones we use to work on.

Even though the concept of “systematic uncertainty” contains some aspects of the infinitist approach and is familiar to the scientific community, what *Infinitism* suggests is to integrate fundamentally the idea of *infinitude in action* as the fabric of reality, and keep the door open systematically to put in question the scientific assertions, rules, theories, laws, and models, in order to push forward the process of discovering and finding.

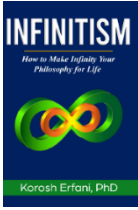
The example of the Standard model is a classic one of what can paralyze us and our efforts regarding the innermost of the material world. But *Infinitism* claims that this is the case on any other scientific theory and model as well. They all are inherently limited and limiting. Only a philosophical approach can go beyond these restrictions the science imposes itself due to an exaggerated credence according to which nothing can be approved but through experience.

Even though we don't put in question the value of experience at all, we think that an experimentation that is not equipped with a broad philosophical vision cannot break through what is the immediate level[s] of reality. The philosophy is there to widen the context of

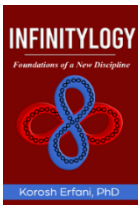
experience and discharging it from its artificial curb. The way it does it is to provide a larger outline by which the experience can enrich itself and foresees what is not yet in sight, but by taking it into account, it could embolden its potential capacities for the coming steps. Each experience opens, in this way, some further trajectories to progress.

The philosophical theory of *Infinitism* does it by offering the all-encompassing and universal assertions that can help the scientific methodology to go far beyond what the injunctions of the Standard model or alike establishes as limits, restrictions, or ends. We state that as the reality is infinite so are its knowledge and the ways we produce the latter.#

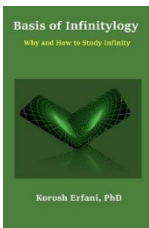
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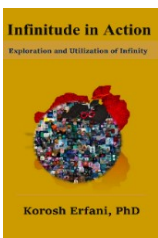
Infitinism: How to make Infinity your philosophy for life, ILCP Publishing House, 2021, 375 pages.



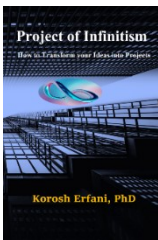
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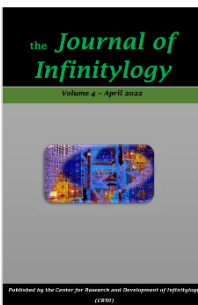
**The Journal of Infinitylogy, Volume 1, January 2022, CRDI
Publication**



**The Journal of Infinitylogy, Volume 2, February 2022, CRDI
Publication**

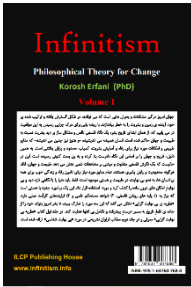


**The Journal of Infinitylogy, Volume 3, March 2022, CRDI
Publication**

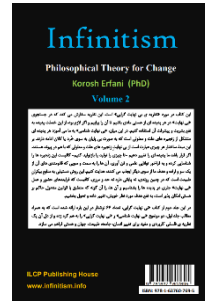


**The Journal of Infinitylogy, Volume 4, April 2022, CRDI
Publication**

Our books in other languages



- *Infitimism: The Philosophical theory to change*, (Book in Persian), ILCP Publishing House, 2020, 1018 pages. (possible translation in the future)



The CRDI plans translating these mentioned English books in French in the future.

Our websites



- Website on the *Center for Research and Development of Infinitylogy (CRDI)*

www.thecrdi.com

- Website on the philosophical theory of *Infitimism* and its applications.

www.infitimism.info

- Website on *Infinitylogy* as a new discipline and its establishment:

www.infinitylogy.com

- Website of the ILCP Publishing House

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