### Foundations of Gauge Theology

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#### **Abstract**

This paper shows how to quantize of Roman Catholicism in order to solve the fine tuning-problems of Classical Theology. This procedure is used to define a new theory, which is called *Gauge Theology*, that shares a large number of striking similarities with the Standard Model of particle physics. We argue that the existence of these common features cannot be attributed to sheer coincidence, but is rather a sign of the *miraculous* properties of the theory.

#### 1 Introduction

Classical Theology (CT) considers God as an all-powerful, ubiquitous entity whose knowledge and goodness are infinite [1]. In the framework of Roman Catholic Religion (RCR), this entity manifested itself incarnating into the figure of Jesus Christ (JC) who is commonly held to be the ultimate proof of God's existence [2] and infinite benevolence <sup>1</sup>. Although widely believed to be true, the shortcomings of the classical RCR model are self-evident: sins, death, wars, Donald Trump and natural disasters spoil the naive picture of an all-knowing, all-powerful and benign being who designed the Universe by his supreme knowledge. CT explains these problems away via a fine-tuning of the initial conditions, using the so-called Original Sin - Garden Of Eden operator approach [3]. However, this procedure is unsatisfactory from both a theoretical and experimental point of view. Theoretically, it spoils the naturalness of the theory, while observationally it is disfavoured by the lack of evidence for talking snakes. In this paper, we propose a different scheme of interpretation of God's properties: quantizing the classical RCR, we will show that many of God's shortcomings can be naturally explained in the context of a Quantum Field Theory (QFT). Moreover, we will see that God's Yang-Mills Lagrangian has the striking feature of being the same  $SU(3) \otimes SU(2) \otimes U(1)$  of the Standard Model of Particle Physics. This and further analogies will help us shedding some light on the ultimate mystery of Theoretical Physics, i.e. God's Existence.

<sup>&</sup>lt;sup>1</sup>In this classical picture, the incarnation into JC can be seen as the analytical continuation of God's function from the imaginary axis into the real plane.

### 2 Quantizing Classical Theology

The process of Canonical Quantization of the classical RCR Lagrangian involves necessarily the introduction of a cutoff. It is well known, e.g., from QED, that the calculation of higher-order contributions to the S-matrix elements necessarily brings about ultraviolet divergences, indicating that the theory cannot be valid on all energy scales. In the context of Gauge Theology (GT) this has a straightforward explanation. God isn't an all-powerful, all-knowing entity - rather, he is an *effective* entity. His knowledge and power do not reach all scales, but are naturally bounded by a cutoff  $\Lambda_{GOD}$  related to the range of validity of GT, which could be - by analogy with the SM - related to the EW, GUT or the SUSY scale. Sins and death arise beyond the tree level, on scales where quantum effects dominate over classical RCR contribution [4].

## 3 Gauge Theology and Spontaneous Symmetry Breaking

The mechanism of Spontaneous Symmetry Breaking (SSB) plays an extremely important role in GT: we find that the first SSB - which takes places at the equivalent of the Grand Unified Theory (GUT) scale - is associated with Lucifer's descent into Hell. The symmetry between good and evil is abruptly broken, affecting the vertical translational invariance of the theory. Lucifer can be seen as the Goldstone boson associated with this SSB [5]. Moreover, many classical authors working within the framework of RCR (see e.g. [6]) have pointed out the very existence of different religions - that brings about wars and hatred among followers of different faiths - is a byproduct of Lucifer's descent into hell. This claim finds a natural explanation in the context of GT, where the GUT scale is also the energy scale where all religions unify into one single group: this is the Scale of Grand Synchretism. In this framework, classical monotheistic religions are simply different low-energy representations - i.e. effective theories - which differ from one another because of the different choices of the relevant parameters in God's Lagrangian.

A second SSB takes place at the equivalent of the EW scale, when God - descending on Earth - gets a non zero vacuum expectation value and breaks the SU(2) gauge group incarnating into JC. This observation has important practical implications, in the phase of model selection. For example, in Standard Judaism (SJ) the SU(2) group is unbroken. However, observations of the heavy Z,W bosons seem to rule out the predictions of SJ [7] of massless mediators, placing this theory at odds with the experimental results. In the SM the Goldstone boson associated with this SSB is the Higgs boson - also known as  $The\ God\ Particle\ [8]$ , recovering the classical RCR's definition of JC. Therefore, in GT, Jesus is the Goldstone boson associated to the SSB of the SU(2) gauge group. Remarkably, after this SSB we are left with the so-called  $Trinity\ Lagrangian,\ SU(3)\otimes U(1)$ , which reproduces the low-energy approximation of effective RCR, where God is held to be One and Three at the same time.

# 4 The 12 Apostles: the Gauge Bosons of Gauge Theology

 $SU(3)\otimes SU(2)\otimes U(1)$  GT Lagrangian has 8+3+1 = 12 generators, which can be easily identified with the 12 Apostles. Moreover, the four generators in the EW sector can be identified with the four evangelists: in GT, the bosons are the mediators of the interactions between God and men  $^2$ . In this picture, quarks represent the soul of men; their subdivision into three families finds a natural explanation in the light of classical RCR: the only stable doublet of quarks represents the standard, etherosexual family  $^3$  - whereas the two kinds of homosexual (man-man and woman-woman interactions) families are doomed to decay: God punishes sinful men giving them a high mass, i.e. a short lifetime. In this we recover the classical RCR theory, which claims that only etherosexual marriage can provide stable foundations for a society [9].

### 5 Conclusions

In this paper, we have shown how Classical Quantization of RCR can explain in a consistent framework the whole creation. God, in contrast to RCR, is here an effective entity, with powers and knowledge limited to the scale  $\Lambda_{GOD}$  up to which GT is valid. Further developments and applications of the theory may involve calculations of the average sinner's lifetime or might be directed to shed more light on the mysteries of the SSB at the Scale of Grand Synchretism.

<sup>&</sup>lt;sup>2</sup>I know, this is not strictly true because Luke and Mark where not apostles in the narrow sense of the word, so that only two of the evangelists were actually also apostles. Whatever.

<sup>&</sup>lt;sup>3</sup>In agreement with the RCR convention, the man is the quark Up and the woman the quark Down.

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