

# Quarks Fake – Brief Chronology

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This paper shows that there is no doubt that a fantasy of the Standard Model has nothing to do with science. This paper is an extension of the Standard Model topic in author's August 2017 published book titled "Einstein's Destruction of Physics". Per this book all references as summary references are directed in this paper.

## 1. Introduction

In 1964, Gell-Mann introduced the purported existence of quarks as particles of which the hadrons, as parts of an ordering scheme for hadrons, are composed, even if there was no evidence for their physical existence. Gell-Mann conceived of a mysterious physically inconsistent principle that quarks can never be directly observed or found in isolation, because an infinitely huge amount of power is necessary for their separation. This unproven speculation includes, in itself, the impossibility to uproot it. On this unproven speculation the robust fantastic theory of the so called Standard Model enabled mysterious physical properties was generated in the mid-1970s to accommodate the results. Later and whenever necessary, go-as-you-please other mysterious physical properties were fabricated into this model. Symptomatic for approach of most 'genial' physicists to understanding the laws of Nature is the frequently cited announcement of Gell-Mann about theoretical models in particle physics: *"We all know how to use and how to apply it to problems; and so we have learned to live with the fact that nobody can understand it"*.

Later in 1968 it was declared that accelerator experiments of inelastic electron-proton scattering at Stanford Linear Accelerator Center (SLAC) allegedly provide evidence for the existence of quarks. The main work referred to for this allegedly provided evidence for the existence of quarks is the researcher at Stanford Linear Accelerator Center, J. D. Bjorken. However, Bjorken in 1969 declared on page 4 in his paper [1] that *"There are various theoretical models which try to explain or at least describe these features of data but none work really well, or are totally satisfying. We will discuss three of these theoretical descriptions of the data; these are: 1) incoherent scattering from pointlike constituents within the proton – the parton model, or*

*Thomson nucleon, 2) vector dominance, or Rutherford electron, 3) current commutators"*.

In Bjorken's paper, no clear advantage for any model is provided. Last but not least, it should be noted that in all models the electron is taken as an approximately dimensionless point-like probe, which is opposed in our previous paper [1].

At SLAC experiments, the only evidence for the consideration of the alleged existence of quarks in the interior of protons is the detected asymmetry of the field around protons in these inelastic, electrons impinging upon protons, scattering experiments. But it is necessary to mention the fact that electromagnetic fields between atoms and molecules of fluids (liquid of the hydrogen was the target at SLAC experiment) configure themselves in polygonal patterns.

## 2. The chronology of quarks fake

In 1970s, masses of Gell-Mann's three quarks as the scattering centers, from which were allegedly formed a proton, corresponded roughly to the one third (around 313MeV) of a proton mass 940MeV. They represented spherical ball with diameter around one third of proton and did not have any further dynamical meaning. Today it is not the true and this idea is throw out of physics. These Gell-Mann's quarks sunk into history and are called now as 'constituent quark masses'. Under the pressure of the next experimental data significantly different quarks from Gell-Mann's quarks were introduced and allegedly proved by the mathematics machinery of renormalization. Correct quarks masses which allegedly today constitute the proton, called as 'current quark masses', are just a one hundredth (in average 3MeV and with diameter around one hundred of proton's) of original Gell-Mann's quarks and so represent just one hundredth of proton mass. The model marked in above mentioned Bjorken's paper as 1) -

the parton model (partons fall in with quarks) so Gell-Mann's quarks model awarded by Nobel Prize - was tacitly abandoned and model marked in Bjorken's paper as 3) - current commutators model - is used today. These hypothetical today's quarks has no physical shape, they represent whirling points which current or flow together with hypothetical (never observed or measured) gluons in so called quark-gluon plasma inside all room of the proton. Nothing would impede the eventual today's assertion that there are not three but six or nine or other quantities of quarks in three or more currents in proton. According to the currently considered dimension of one quark in the Standard Model as the one hundredth of proton's dimension up to million quarks can be present in one proton. This is consistent with our estimation stated in our book [1].

Just a fairy tale about the discovery of three quarks, Gell-Mann's Nobel Prize award and ordinance of power structure keep number of quarks in proton on three. This way Gell-Mann's quarks vanished out of a proton and just the word quark remained. These today's quarks have no experimental, physical or logical justification. The purpose of their abidance in theories is just in that something must be a bearer of mass because allegedly gluons are massless in analogy to the nonsense installation of massless photons in relativity and allegedly the ether does not exist.

The main role in Standard Model fairy tales developed in 1970s plays never observed or experimentally measured hypothetical gluon (the mediator of strong forces as an exchange particle between hypothetical quarks) which exists allegedly in 8 forms of different color. But as in last two decades quarks mass was one hundred fold reduced and reverted into joint currents with gluons all fiction of 20th century about gluons as an intermediate particle between static quarks (scattering centers at SLAC 1968 scattering experiments) break up. Among others, also the explanation of force fields in 20th century on basis of exchange of particles between two objects is fully absurd physics.

Finally, inside produced quark-gluon plasma in 2015 CERN experiment [1] none of these new current quarks or any other particles which were supposed to exist there were observed and so quarks vanished out of physics totally. Just the fairytale of power structures about the alleged existence of Gell-Mann's inseparable holy trinity quarks inside a proton, forced by mass media on public remained. The evan-

ishment of quarks inseparably means also the evanishment of the whole Standard Model together with Higgs boson.

The example of full absurdity of the Standard Model can be presented in a simple physical and logical situation when a pi meson, pion, simply decays (reduces its energy and becomes mu meson) to a muon and energy is washed away by a neutrino. No other differences between these two particles then less mass was ever measured. The muon which was originally, according to experimenters, simply less heavy pi meson and was called originally mu meson, in order to implement quarks and break this simply conclusion from memories of physicist was renamed by theorists as muon.

This simple case in fantasy of Standard Model looks another way.

According to fairy tales of Standard Model, at final lap of mesons decay, from the pi meson with energy 140MeV is allegedly created (without any external interference or contribution) W boson with robust energy 80 000Mev ! containing allegedly the two quarks from pi meson - up 2,4MeV and down 4,8MeV. W boson than allegedly decays into a muon with energy 106Mev and a neutrino with 0,1eV. From alleged two quarks in W boson the one original quark allegedly transmute to the antipode of the second and thereafter these two quarks scentless annihilate!

This scentless annihilation is in controversy with all experimental observations of annihilation of particles and antiparticles which products is always two electro-magnetic photons. It is clear for everyone that also trivial math of energy balances is false in this Standard Model reasoning.

### 3. Conclusions

**No doubt that fantasy of the Standard Model has nothing to do with science.**

We can end this paper with the main conclusions of Alexander Unzicker 2014 book 'The Higgs Fake: How Particle Physicists Fooled the Nobel Committee' [1]:

*"The field theory cornerstones of modern particle physics are based on a completely metaphorical level, upon which you may develop any fantasy to explain your needs. The standard model is incapable of assigning a meaning to the mass of a particle, just as astrology has nothing to say about a star's luminosity. It is an arbitrary construction*

*that will leave anybody frustrated who seeks insight. **Maybe one cannot understand Nature, but for sure, particle physics cannot explain it.** It is time to dump a big science enterprise that has grown to absurd complication in every sense, has swept under the rug the important problems, has developed nothing useful and impedes any true progress in understanding the laws of Nature. It is obvious that opinions in high energy physics are homogenized by social and hierarchical pressure. Therefore, it is time to stop seeing the Nobel Prize as a sacrosanct accolade for physics. In the course of the last 50 years, the award*

*has contributed considerably to the degeneration of the search for the fundamental laws of Nature.”*

## **References**

- [ 1 ] Peter Sajak, *Einstein’s Destruction of Physics*, Lulu Press, August 2017, USA