T 97: Andere Gebiete der Theorie

Zeit: Donnerstag 16:45–18:15 Raum: K.11.23 (HS 32)

T 97.1 Do 16:45 K.11.23 (HS 32)

The origin of mass - without Higgs — •Albrecht Giese — Taxusweg 15, 22605 Hamburg

The detection of the "Higgs" boson has caused great excitement among physicists. However, it is widely overlooked that the corresponding theory is in no way able to explain inertial mass.

On the one hand, the theory does not provide a means of determining the mass of an individual particle. The necessary Yukawa coupling does not result from the theory. On the other hand, cosmological investigations show that the necessary Higgs field does not in fact exist. The discrepancy between Higgs theory and any actual existing vacuum field is of the order of at least 10^{57}.

The inertial mass follows very simply from the fact that any extended object necessarily displays inertial behaviour. This is a consequence of the finiteness of the speed of light, by which binding forces propagate. If this mechanism is applied to existing particles, it yields the mass of the electron, for example, with a precision of better than 10^{-5} if the size of the particle is used. This model also predicts the relativistic increase of an mass in motion and, as a consequence, the famous relationship $E = mc^2$. In addition, it is able to explain the magnetic moment and the spin of a particle without the use of QM.

For further info: www.ag-physics.org/rmass

T 97.2 Do 17:00 K.11.23 (HS 32)

Physical consequences of the alpha/beta rule which accurately calculates particle masses — •Karl Otto Greulich — Fritz Lipmann Instute, Beutenbergstr.11,D07745 Jena

Using the fine structure constant alpha (= 1/137,036), the proton vs. electron mass ratio beta (= 1836,12) and the integers m and n, the alpha/ beta rule: m particle = alpha power to -n x beta power to m x 27,2 eV/c2 allows almost exact calculation of particle masses. (K.O.Greulich, DPG Spring meeting 2014, Mainz, T99.4) With n = 2, m = 0 the electron mass becomes 510,79 keV/c2 (experimental 511 keV/c2) With n = 2, m = 1 the proton mass is 937,9 MeV/c2 (literature 938.3 MeV/c2). For n = 3 and m = 1 a particle with 128,6 GeV/c2 close to the reported Higgs mass, is expected. For n = 14 and m = -1 the Planck mass results. The calculated masses for gauge bosons and for quarks have similar accuracy. All masses fit into the same scheme (the alpha/beta rule), indicating that non of these particle masses play an extraordinary role. Particularly, the Higgs Boson, often termed the *God particle* plays in this sense no extraordinary role. In addition, particle masses are intimately correlated with the fine structure constant alpha. If particle masses have been constant over all times, alpha must have been constant over these times. In addition, the ionization energy of the hydrogen atom (13,6 eV) needs to have been constant if particle masses have been unchanged or vice versa. In conclusion, the alpha/beta rule needs to be taken into account when cosmological models are developed. In conclusion, the alpha/beta rule needs to be taken into account when cosmological models are developed.

T 97.3 Do 17:15 K.11.23 (HS 32)

Cosmology and Lorentz-Interpretation (LI) of GRT — •Jürgen Brandes — Karlsbad, Germany

1.) GRT is standard physics and not in question. This talk rests on [1]. SM (Schwarzschild metic) of central symmetric stars, RWM (Robertson-Walker-metric) of exploding dust stars and RWM of expanding universe are closely connected. So it is no surprise that the proven contradiction of energy formulas of SM - formulas (2) and (3) of [1] - has a similiar consequence for RWM. In this case, the total energy of a sphere is predicted different from what would be measured. See formulas (1) and (3) of [2].

2.) The *physical reason* for this contradiction is similar to the one of SM [1]: The measurement of total energy in a free falling reference system (on a shell) does not realize the change of rest mass in a gravitational field. Considering the changing rest mass solves this contradiction. Above this, it allows some explanation of: (1) Why is there an inflationary phase at the beginning of big bang? (2) Where does the energy needed for today's acceleration phase of our universe could come from?

[1] *GRT - well proven and also incomplete?* http://www.grt-li.de/

[2] *Cosmology and Lorentz-Interpretation (LI) of GRT* http://www.grt-li.de/

T 97.4 Do 17:30 K.11.23 (HS 32)

Massen-Eigenwerte des Elektron-Neutrinos — •Manfred Geilhaupt — Mönchengladbach Webschulstr. 31

Die Berechnung der "Ruhemasse" des Elektron-Neutrinos wurde aufgrund eigener Überlegungen durchgeführt. Die Berechnung verschiedener diskreter Elektron Neutrino-Ruhe-Massen basiert auf der vorausgehenden Berechnung der Ruhemasse des Elektrons. Die zugrunde gelegte Theorie zur Berechnung der Elektronruhemasse ist die ART+TD. (Allgemeine Relativitätstheorie, welche die Prinzipien der Thermodynamik berücksichtigt.)

Anmerkung: Es handelt sich bei den berechneten Elektron Neutrino Ruhemasseeigenwerten nicht um inkohärente Kombinationen und Mischungen von undefinierten Massenzuständen verschiedener Neutrino-Flavour-Eigenzustände.

T 97.5 Do 17:45 K.11.23 (HS 32)

The Structure of Hadronic Flavours and Weak Interactions as deduced from Quantum Gravity and Its GUT Extensiond — •Claus Birkholz — Seydelstr. 7, D-10117 Berlin

In QG and its GUT extension, the valence parts of quarks are called "quanta". It is argued why flavoured quanta should be multiple-quanta structures entirely made of ordinary up- and down-quanta. In fact, corresponding 3-quanta structures are presented to satisfy all we need. The existence and structure of additional quark generations is predicted.

It is shown that, after resolving all flavours into these 3-quanta structures based on QG, weak interactions of all kind are conserving all their quantum numbers absolutely. "Broken" quantum numbers do not exist.

This is exemplified by analyzing various weak decay modes of baryons, mesons, and the weak bosons. Thus, not only the ordinary beta-decay of baryons, mesons, and the weak bosons is scrutinized, but also purely non-leptonic and mixed modes.

All this is based on the fundamental indivisibility of a particle into a valence and a separate non-valence part in QG, denied by quantum field theories.

For more information on QG and GUT see www.q-grav.com.

T 97.6 Do 18:00 K.11.23 (HS 32)

Teilchenphysik, jenseits des Standardmodells. — •Norbert Sadler — Wasserburger Str. 25a; 85540 Haar

Um das Standardmodell auf der Grundlage des gegenwärtigen Wissenstandes zu verstehen ist es erforderlich die neuesten Erkenntnisse aus der Kosmologie, der Statistischen Physik, der QCD, der Gruppentheorie, der explorativen Faktorenanalyse anzuwenden.

Die Analyse/Zerlegung betreffen nicht triviale Faktoren wie: (0.938)Prot.E.; (4/9)Prot./1m,lin.Mat.Dichte; (0.24)dunkle Mat.; (0.29)gravitative Mat.; das 57 dim. Objekt der E8-Gruppe.

Die Faktoren/Zerlegung der primordialen Nukleosynthese:

2x((4/9)x(0.938))=(0.24 dunkle Mat.)/(0.29 gravitative Mat. = 83% =((1/3)x(7.97Farb.Lad.)x(0.938)/3= Entropie der Nukleosynth. Die Entropie der baryon. Nukleosynthese ist der Gravitation= ((4/9)/1m) x(0.938) und der dunklen Mat.(0.24) emergent! Der explorative Faktor der Prot.E.(0.938)=10**-(QED/W-Boson)

Die Faktorisierung und Interpretation der LHC-Signale: 2x(57o(3.97/9))x(57o(4.37%bar.Mat.)=2.49GeV) = 125.52 GeV. Das LHC-Signal von 125.52 GeV kann verstanden werden als die Perkolation 2er lin. Dichte-Zustände und der Anregung des 2.49 GeV Protonen-Cofinements durch das 57 dim. Objekt.

Erkenntnis: Die Massen der Elementarteilchen werden über die E8-Symmetrie bzw. der aggregierenden Perkolation des 57 dim. Objektes, jenseits des Standardmodells, generiert und basieren auf den aktuellen Wissenstand der Physik/Mathemat.! Weitere Information: www.cosmology-harmonices-mundi.com