T 88: Andere Gebiete der Theorie

Zeit: Mittwoch 16:45–18:30   Raum: H 4

T 88.1   Mi 16:45   H 4

Particle Rest-Mass and Application: Free Neutron Decay —
•Manfred Geilhaupt — Hessenfeld 10, 41844 Wegberg

The Standard Model (SM) describes the electron mass as resulting from a dimensionless Yukawa-coupling-constant. The Yukawa-Potential describes the interactions of e-, mu, tau, and their neutrinos with the Higgs field background. After diagonalization of the matrix, the particle masses are basically the product of an arbitrary Yukawa coupling times the Higgs field value (250 GeV).(Tod Gardiner) However, there is no theory ("flavor physics") that determines the Yukawa coupling constant for each lepton up to now.

Therefore we present a mass-formula for the restmass of a single, FREE electron, muon and tauon at REST, as well as for the two composite particles proton and neutron based on Einstein*s Theory. This (pure) restmass is made from internal action only, so defined to be free from external interaction which of course, if present, has a contribution to mass. Application of the rest-mass generating mechanism is the minus beta-decay of a free neutron. The Feynman-Diagram is extended by the self-energy-levels of the components and includes the mediating W-Boson (external) action as a catalyst-particle.

T 88.2   Mi 17:00   H 4

De Broglie's Wavelength of a Particle Has a Conflict —
•Albrecht Giese — Taxusweg 15, 22605 Hamburg

The postulation of matter waves by Louis de Broglie was a big step towards a new understanding in particle physics and of quantum mechanics. And his result that the wavelength of a particle is given by the particle's momentum was convincing at the first glance and seemed to be confirmed by experiments.

Unfortunately, however, de Broglie's deduction of the wavelength is based on an incorrect understanding of special relativity. And the dependence of the wavelength on momentum is neither Lorentz- nor even Galilei-invariant. It does not therefore reflect correct physics. Nevertheless, it was used by Schrödinger and by Dirac as an essential part of their wave functions.

We will explain how the problem occurred and why the results seem to be confirmed by experiments. And we will show what a correct solution would look like.

T 88.3   Mi 17:15   H 4

The Origin of Mass - A Fundamental Mechanism —
•Albrecht Giese — Taxusweg 15, 22605 Hamburg

The origin of mass is one of the basic questions in our understanding of physics. The great attention being paid to the Higgs theory is an indication of it. However, the Higgs theory does not really work. Aside from its great complexity, the necessary Higgs field is contradicted by astronomical observations and the necessary Yukawa coupling needed to determine any actual mass is not provided by this theory. - On the other hand, there is a very fundamental solution for inertia based on classical physics. If two objects are bound to each other in such a way as to maintain a distance from each other, then this configuration necessarily has inertia, even if the two objects do not have any mass.

If this model is used to determine the mass of the electron, for example, then the results conform precisely to the actual measurements. For this evaluation, the size of the electron is determined by classical means from its magnetic moment. - This calculation also works for the other leptons, as well as for quarks. And it covers the relativistic behavior of mass, including Einstein's famous relation between mass and energy.

It can be shown that no other mechanism is needed in physics to explain inertia.

Further info: www.ag-physics.org/rmass

T 88.4   Mi 17:30   H 4

The baryon octet in the light of the alpha/beta rule for exact calculation of particle masses. —
•Karl Otto Greulich — Fritz-Lipmann Institut, Beutenbergstr.11, 07745 Jena

The baryon octet arranges eight prominent elementary particles (nucleons, Lambda, Sigma and Omega baryons) according to their strangeness "S" and their Isospin. In the present contribution it is shown that their masses can be calculated with an accuracy of better than 1 % by the equation:

$$m = m(\text{proton}) + 70{,}04 \text{ MeV/c}^2 \ (S^2 + 1{,}5)$$

For the neutral and charged Sigma baryon the additive term is 2 and 2,5. Here it is shown that the mass $m0 = 70{,}04$ MeV/c2 is predicted by simple equations for accurate calculation of particle masses (K.O. Greulich 2010 J Mod Phys, 1, 300-302), particularly by the alpha/beta rule (K.O. Greulich, 2016 DPG Spring meeting, Hamburg, T 99.4). This is exactly the mass of a fictive particle with the classical electron radius as de Broglie wavelength.

T 88.5   Mi 17:45   H 4

Quo Vadis? Vanitas! Die 13,5 Leben der Planck'schen Konstante —
•Morguen Rotwang — Adam-Weisenhaupt-Boulevard 23, 53115 Bonn

Der Wunsch nach einer Großen Vereinheitlichten Theorie steht in antiproportionalem Verhältnis zum Erfolg eine ebensolche zu etablieren. Nicht Einstein, nicht Heisenberg gelang eine Konzeption und bis zum heutigen Tag stehen die Allgemeine Relativitätstheorie und die Quantenmechanik unvereinbar und scheinbar nachweisbar richtig nebeneinander. Die Antwort jedoch für dieses Dilemma liegt möglicherweise in der Planck-Konstante selbst, welche den als kontinuierlich angenommenen Raum, so auch die Zeit, in Einheiten der Wirkung von Raum x Zeit quantisiert. Dies ist der eigentliche fundamentale Baustein. Anhand der im Titel genannten Vielzahl an Beispielen für das Auftreten der Planckkonstanten in unterschiedlichsten Theorien und Konzeptionen wollen wir die Rolle der Wirkung in ihrem Fundamentalen Zusammenhang genauer hervorheben.

T 88.6   Mi 18:00   H 4

A Fifth Generation of Quarks —
•Lello Boscoverde — Institute for Theoretics, Dirnismaning

Considerable focus in theory has been given to the phenomenology of a fourth generation of quarks. And a considerable experimental effort was invested in searching for it. The resulting strong limits nearly rule out the existence of such an extra fourth generation. In light of this, we skip over the fourth generation and discuss the phenomenology of a *fifth* generation of quarks, highlighting the complete lack of experimental limits on its existence.

T 88.7   Mi 18:15   H 4

The LHC signals and a" new physic". —
•Norbert Sadler — Wasserburger Str. 25a ; 85540 Haar

It can be shown that the respective proton-confinement of 2.5 GeV will be stimulated momentary at around 62.68 GeV, percolates over the 57-dimensional object of the Exzeptional E8-group and will be emitted in the form of two jets with 125.72 GeV at collision of two protons equivalentts of 0.9384 GeV in the LHC in total. The 57 dimensional objekt in conjunction with the confinement represents the postulated Higgs Boson and the E8-symmetry the Higgs field.

At doubling of the collision energy the confinements would be stimufated around the factor 6 to 6 x 125 GeV in the first mode.

At fourfold increase of the collision energy the stimulation factor would already be 30.

This collision energy is however not realisable and therefore a "new physic" of the future LHC signals can not be expected.

Further Information: www.cosmology-harmonices-mundi.com