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What is SuperSymmetry and can it really be valid!?!

In the well-known Super-String theories described with 10D-spacetime the mathematical analysis only is consistent if SUSY is valid!

SUSY is a symmetry between force-particles (bosons) and matter-particles (fermions).
Observed from QM view SUSY is possible, because in this mathematical analysis elementary particles are always analyzed as point-particles. However, this mathematical very beautiful analysis just is a simple linear analysis, i.e. does not take into account curvature of space-time whatsoever. In this mathematical analysis elementary particles aren't described extended, but as easily mathematical described point-particles in Einstein's 4D-spacetime (simply described in the so-called Minkowski-space). Therefore from this simple analysis the property called spin cannot be explained!
The extent of moving objects is always subject to Lorentz-contraction, i.e. elementary particles almost always appear smaller than they actually are because they almost always move with respect to an observer. This contraction appears for every speed-difference. For an observed elementary particle this length-contraction isn't only valid in the direction of motion (described by the SR worldline), but also in the orthogonal directions in the 2D-plane perpendicular to the direction of motion. For example, a (massless) photon will always be observed as a point-particle, because it is always been observed moving with the maximum speed called light-speed. This applies not only to the direction of motion, but also for other observed/measured directions necessary to describe this (massless) elementary particle correct.

In all interactions between elementary particles, all colliding particles during the moment of collision don't move observed/described by a CoM coordinate system. Described from this inertial CoM reference frame the colliding particles can both be analyzed extended or not extended(SR QM)!?!

To describe QM in compliance with the CAP, i.e. to take into account the necessary curvature of space-time, elementary particles must be analyzed mathematically extended in the 2D-plane orthogonal to the direction of motion. This is explained in Curvature and QM .
This extended character of elementary particles must be described as harmonically oscillating motion in the 2D-plane orthogonal to the direction of motion. The constant angular-momentum just describes the spin of the elementary particle and the frequency of the described harmonic oscillation in the 2D-plane just represents the kinetic energy of the described elementary particle. In the case of a described photon this extendedness just represents the EM-field carried by the massless spin1 boson.

The mathematical description of the extendedness of elementary particles in the 2D-plane orthogonal to the direction of motion can be given SR with 2 consecutive first-order time-derivative DE. The mathematical solution-space explains why the SR QM has to be solved in the infinite dimensional complex Hilbert-space. The DE can only be solved exactly completely with BC's. The 2 needed. BC's .are easily solved with experimental data on characteristics of elementary particles. One of the constants just is the spin of the elementary particle described classically and the second constant just is the Golden Ratio. The average extendedness in the 2D-plane $2\langle\rho\rangle$ (in cylindrical coordinates) of the harmonic oscillating motion in the 2D-plane orthogonal to the worldline of the moving particle [described from the inertial frame with origin moving with the average position of the described particle, i.e. its position on the worldline] is proportional with spin x Golden Ratio.x Planck-length.

This immediately shows that a spinless elementary particle is not able to posses energy proportional to a detectable frequency and as a result of this fact just is simple human-fiction!

The BC's are either open or closed. Open BC's possess one additional degree of freedom. It's an integer number > 0. It gives the amount of rotations in the 2D-plane before the harmonic oscillation repeats itself. So, it just is the quantum-number specifying the particle's family. The higher this number the more interaction with the gravitational field, so the higher the (rest-)mass. Our universe just has 3 families of elementary particles with open- BC's, i.e. fermions.
Open-BC's allow interaction with other elementary particles in all space-like directions so always have non-zero rest-masses. Closed-BC's in principle only allow interactions in the direction of motion.
The only symmetry-groups based uncharged elementary bosons are the spin1 photon of the anti-symmetrical symmetry-group and the spin2 graviton of the symmetrical symmetry-group. All charged particles always interact in all space-like directions, so must be massive. This is why the elementary Z-boson of the weak-nuclear forces has non-zero rest-mass, just like its charged partners $W^{\pm}$ of the same SU(2)-symmetry group. This at once explains why only the spin1 photon and spin2 graviton are massless in any possible universe. Also read the PDF: Elementary Particles.

This mathematical derivation of QM at once shows why SUSY is just another human fiction, just like the assumption that elementary spinless particles are possible. Symmetry between bosons and fermions is not possible because fermions possess an additional degree of freedom to specify them completely.

In 2004, Grisha Perelman proved that knots are only possible in 3D-space, i.e. SR 4D-spacetime. Always massive fermions may in any SR analysis always be described as moving both forward and backward. As a result of this fact the harmonic oscillating path of the elementary particle must allow knots. So a mathematical space which does not allow knots, does not allow fermions! Fermions are the primary sources of all force-particles (bosons), i.e. without fermions nothing at all!

As a result of this fact, a non-4D-spacetime cannot be used to describe our reality!

And the question now is, what remains valid of the 10D-SuperString theories when SUSY is invalid!?! Certainly, when realizing that up to this day a spinless elementary particle has ***névér*** been observed in any experiment! And realizing that spinless elementary particles are only used to solve difficulties in the SM of SR QM, while no-one ever discovered such a boson, it is valid to assume that such particles do NOT exist. Only think of the famous Higgs mechanism developed by Peter Higgs and others before 1970! This mechanism assumes particles possess mass through their interaction with the Higgs-field, which is represented by extremely heavy elementary spinless Higgs-bosons.

In my view it is time to re-write the SM of SR QM such that this description complies to Einstein's CAP, i.e. rewrite elementary particles extended in the 2D-plane orthogonal to the direction of motion to be able to analyze interactions correctly. Doing this in a simple 4D-spacetime description, not only results into a completely understandable view on our microscopic world, but also removes all mathematical difficulties present in the today still ***not*** understood SM!

Before continuing the usage of the on one side very beautiful SM it's much more satisfying to really understand why everything is as its always experienced! The main reason is that QM without gravitation is fundamental incomplete. And the fact that QM is incomplete is due to the fact that all elementary particles are assumed to be point-particles with not-understood intrinsic properties during all analyzed interactions!!!

In all SuperString theories all elementary particles are described as 2D-strings, but the QM still is used ad-hoc in a not understood way. For example, I have never met a physicist who was able to explain to me what “intrinsic angular-momentum”, called spin is! For example, Prof. Dr. Jan de Boer a theoretical string theorist of the UvA couldn't explain to me the property called spin and only told me to look at spin in the same way other (quantum-) physicists do, i.e. without understanding it mathematically!

To me, the ***ónly*** possible mathematical analysis of our everyday reality is a curvature compliant 4D-spacetime analysis! When in this mathematical space all possible symmetries are described SR in a non-reducible manner (no more variables as demanded by the described symmetries), all possible elementary particles with áll their characteristic quantum-numbers can be derived completely. I.e. this curvature embracing 4D-spacetime analysis is the ónly possible analysis of any possible reality! Please, also read the PDF: Elementary Particles.

When someone is able to convince me that I'm wrong, please don't hesitate to give your view on our reality and I'll more thoroughly explain myself in my reaction. But until serious mathematical proven rejection of my view on a completely re-written SM is given, I stick by my mathematical analysis of any possible universe. With this adapted description of the SM we will finally be able to analyze and seriously deal with sicknesses, like aging, cancer, AIDS, MS, etc., i.e. processes between animal macromolecules, using easy-to-use software to be able to understand and cure these awful illnesses.

In my eyes, no string physicist will ever be able to deal with this difficult task!!!

I am very curious how other mathematical physicists and others analyze my current view on our reality!

I'm ALWAYS open to critical remarks with respect to my assumed mathematical understanding of QM !

Hoping for a swift response, I wait patiently.. .

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