

Memorandum about quantum field theory (QFT)

In the main article on www.dbphysics.com and in the sub article "About field lines in a magnetic field", May 15, 2017, we described an alternative way of understanding magnetic fields.

Most physicists approach questions around the electromagnetic according to the quantum field theory. The quantum field theory (QFT) is meant to setup a quantum mechanical theory of the electromagnetic fields. With the QFT quantum degrees of freedom in space (particle states) are being indexed. Then symmetric quantum states together form a quantum field. The particles behave identical and together are the cause of a resulting quantumfield (electromagnetic field). The current quantumfieldtheory is not mathematical rigorous. The last decades several attempts have been made to place quantumfieldtheory on a solid mathematical base by formulating a set of axioms for it. Finding the right axioms still is an open and difficult mathematical problem. This is one of the Milleniumprize problems.

We suggest that the curvatures around a particle are fundamental for arousing an electromagnetic quantum field. There is a symmetry that creates a symmetric field as described in the QFT. In our opinion there is however little reason for the description and the use of symmetric (bosonic) or anti-symmetric (fermionic) states. The arousing of an electromagnetic field can completely and fully be understood from the perspective of Einstein's teachings of curvatures. The field will occur when particles like electrons accumulate at a specific position or in a specific movement. This will instantly lead to the attraction of db-particles by which a quantum field can be observed. We have described this process in our article mentioned above.

Jelle Ebel van der Schoot, Gerhard Jan Smit, September 2, 2017, Nijmegen
www.dbphysics.com