

ANALOGIES OF MAGNETIC EFFECTS ON HUMAN MUSCLES AND ON EZ WATER. QFT CALCULATION FOR FREE CHIRAL ELECTRONS. EXPERIMENTAL PROJECT

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Two recent determinations of the effects of a magnetic field on the energy of human muscles and of EZ water have shown that these effects change sign if the polarity of a magnetic field is inverted. In this spirit, we have computed in the quantum field theory approach, the effects of a weak magnetic field on the energy and on the chirality of a system of free electrons. We define a chirality index of the considered electron state and show that it determines the calculable changes of the energy and of the chirality of the state and that it is also changed by the magnetic field in a simple way. The computed effects on the energy actually change if the polarity of the field is inverted. We remind the connection between the value of the chirality of a certain state and the value of the deviation of the polarization plane of linearly polarized light that crosses it. We discuss in the conclusion the possibility of performing an experimental test of this connection in the presence of a magnetic field. This would make the future role of beams of linearly polarized light particularly relevant.

Biography

Claudio Verzeznassi did his diploma in Diploma di Maturita' at Liceo Classico F. Petrarca, Trieste, Italy in the year 1959. Also, he gained his university degree in Theoretical physics, at University of Trieste in 1964. He started his working career in the year 1965, from the University of Trieste, dept. of Theoretical Physics as a professor. Recently, he is working as a researcher at the University of Udine, Polytechnic of Engineering and Architecture. 01/09/2013—today researcher, AMeC-Association Medicine and Complexity, Trieste, Italy.

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