Translation into English: Chapter 2 - Catalogue of Errors for Both Theories of Relativity

from the German documentation of G.O. Mueller

"On the Absolute Magnitude of the Special Theory of Relativity - A Documentary Thought Experiment on 95 Years of Criticism (1908-2003) with Proof of 3789 Critical Works" - Text Version 2.1 - June 2004 <a href="http://www.ekkehard-friebe.de/kap2.pdf">http://www.ekkehard-friebe.de/kap2.pdf</a>

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## A: Ether / Error No. 8

The running-time differences clearly detected in the experiments conducted by Dayton C. Miller in 1925/27 are denied in the STR presentations

In his interferometry experiments Miller worked for many years at different altitudes and with longer light paths than his predecessors. Moreover, he avoided shielding the laboratory with concrete and metals, which was previously so typical, and he carried out the experiments at the various scheduled points in time (opposite locations of the earth in its orbit around the sun, and opposite positions of the earth in its own rotation), and was indeed the first to do so completely. His experimental setups were the best achieved up until then and have never been achieved again in control experiments. His results showed values that were approx. a third of those expected by a certain ether concept, i.e. no null results. - Carvallo, 1934, cited (unfortunately without a given source) on the title page a statement by Albert Einstein from 1925: "Si les résultats du Dr. Miller étaient confirmés, la théorie de la relativité serait en défault."

In relativistic presentations the results obtained by D. C. Miller are almost never mentioned. - Thorough analysis of the circumstances in: Collins, 1993 (Golem).

The world of relativity has had the interferometry experiments made harmless and has had them simply disposed of as irrelevant by Swenson, Loyd S., Jr.: The Ethereal Aether. A History of the Michelson-Morley-Miller Aether-Drift Experiments, 1880-1930. 1972. 361 pages.

In 1988 the confessed relativist B. Kanitscheider took a very clever approach towards making the dangerous measurements he had heard about in the same year harmless. At least he had heard, in 1988, about *one* positive ether drift detected in the year 1921 (p. 101): "Much later one experiment, namely that by Dayton Clarence Miller in the year 1921, even gave a positive ether drift. Since this took place at a time in which the STR had long since been installed, it would have been a threat to the theory. Neither Einstein nor most of the experts of those days were very devastated by the Miller result, however. One assumed a systematic error in the measurement setup." - In other words, this was recognized as a threat, but one was simply none too devastated, and the suspicion as to an error dismissed the result. On no account may one make a clear evaluation of the measured drift! Kanitscheider's physical moral: no matter what is measured, even if it's a threat, one must not allow oneself to be very devastated, and in particular one must not take it seriously. Simply assume an error! A lesson on how one fights threats with assumptions.

Since the results obtained by D. C. Miller, at around a third of the expected values, could no longer be reinterpreted as "null results" or as "negative results", the powers that be in physics, who alone control the research facilities and the financial resources, did not dare to carry out the control experiments that are otherwise customary in such cases. This is one of the early examples of prevention of free research, in order to protect the STR against public ruination, and it makes the D. C. Miller experiment one of the first experimental candidates for research after the future reinstatement of freedom to research.

- Miller, Dayton Clarence: Ether-drift experiments at Mount Wilson Solar Observatory. In: National Academy of Sciences (USA). Proceedings. 11. 1925, pp 306-314. - Miller: Significance of the

ether drift experiments of 1925 at Mount Wilson. In: Science. (USA) N. p. 63. 1926, No. 1635, 30th Apr., pp 433-443. - Miller: Conference on the Michelson-Morley Experiment [Pasadena 1927; Contribution]. In: Astrophysical journal. 68. 1928, No. 5, pp 352-367; Contribution to the discussion: 397-399. - Miller: The ether-drift experiment and the determination of the absolute motion of the earth. In: Reviews of modern physics. (USA) 5. 1933, No. 3, pp 203-242. - Carvallo, Moise Emmanuel: La théorie d'Einstein démentie par l'expérience. Paris 1934. 55 pages - Kanitscheider, Bernulf: Das Weltbild Albert Einsteins. Munich: Beck 1988. 208 pages - Collins, Harry M.: The Golem: What You Should Know About Science / Harry Collins, Trevor Pinch. Cambridge: Univ. Pr., 1993. 164 pages. cf. 2nd ed. 1998. German edition: Der Golem der Forschung. Wie unsere Wissenschaft die Natur erfindet. 1999.