

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
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S: Presentations / Error No. 8

Many authors of relativity maintain that relativistic effects can only be seen at speeds of the order of the speed of light

The claim is refuted by Bartocci / Capria (1991, Some remarks), who treat relationship between classical electromagnetism and the principle of relativity (p. 1031): "Electromagnetism can be construed as a classical theory, as we have done above, and its predictions differ widely from the relativistic ones. Note that this can happen also for very simple electrodynamic systems, and, most important, not at all just for velocities close to that of light. In our example the bigger the current intensity I , the bigger the discrepancy even for 'low' velocities, and this is the more interesting as very often textbooks represent the clash between the classical theory and special relativity only in the range of optical phenomena, or by studying the case of strongly accelerated particles. On the contrary, the most conceptually simple 'crucial' experiments can be devised by analyzing the behaviour of moving charges and currents."

In that the authors provide the possibility of proofs of relativistic effects in electromagnetism and electrodynamics, the world of relativity will stand under still greater pressure to explain and to provide proof [of its own, for these effects], as soon as scientific freedom is restored to the field of theoretical physics and the research facilities are again free to concentrate their efforts on all experiments without regard to possibly harmful results for preferred theories.

The claim is used by the relativists for two purposes: (1) it is intended to calm the reader with respect to the fact that the unusual effects have no influence on their everyday lives ; and (2) it is intended to push the proof required for the alleged effects into the sphere of practically unattainable levels of magnitude and thus to release the relativists from the onus of proof, at least for a while.

Bartocci, Umberto: Some remarks on classical electromagnetism and the principle of relativity / Umberto Bartocci, Marco Mamone Capria. In: American journal of physics. 59. 1991, No. 11, pp 1030-1032. - Bartocci, Umberto: Symmetries and asymmetries in classical and relativistic electrodynamics / Umberto Bartocci, Marco Mamone Capria. In: Foundations of physics. 21. 1991, pp 787-801.