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 http://www.ekkehard-friebe.de/kap2.pdf

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N: Thermodynamics / Error No. 1

According to Albert Einstein (1907) and Max Planck (1908), a system in motion should appear colder to an observer, and the flow of heat should appear diminished

Galeczki/Marquardt (1997, pp 192-195) draw attention to the fact that, with respect to the above-mentioned claims two other relativists - Ott (1963) and Arzeliès (1966) - infer "exactly the opposite" and consequently put the decisive question (p. 193): "Is the temperature of the sun, for light, zero or infinite?"

This striking, but fundamental contradiction between relativistic authors shows the untenable nature and "the failure of relativistic thermodynamics".

The reason for the failure of all efforts of the world of relativity to further extend thermodynamics is, according to Galeczki/Marquardt, that thermodynamics is based on the central concept of the system, whereas the STR, by contrast, "does not recognize the concept of the system as a physical unity" (p. 192). They quote Landsberg (1970), as a further author against a relativistic thermodynamics, with the following statement: "... nobody with any sense would conduct a thermodynamic calculation for anything but a reference system at rest."

Galeczki / Marquardt show the fundamental problems that stand in the way of a relativistic thermodynamics (p. 192). There have never been direct or indirect "measurements ..., that have compelled the explanation of a 'special relativistic thermodynamics'. It is impossible to measure any thermodynamic characteristic of a moving system whatsoever that is not thermally interacting with another system." It has never proved possible to create a thermodynamic or thermostatic balance between two systems: "consequently every system loses heat 'outwards'. This is, of course, absurd when the world, in terms of prerequisites, only consists of these two systems without eternal heat loss. The definition of temperature would lose its meaning."

Einstein, Albert: Über das Relativitätsprinzip und die aus demselben gezogenen Folgerungen. In: Jahrbuch der Radioaktivität und Elektronik. 4.1907, 411-462; 5. 1908, pp 98-99. Reprinted in: Albert Einsteins Relativitätstheorie. Publ.: K. v. Meyenn. 1990. pp 160-214. - Einstein, Albert: Über die Möglichkeit einer neuen Prüfung des Relativitätsprinzips. In: Annalen der Physik. F. 4, Vol. 23 (=328). 1907, pp 197-198. - Planck, Max: Zur Dynamik bewegter Systeme. In: Annalen der Physik. 26. 1908, pp 1-34. - Ott, H.: Lorentz-Transformation der Wärme und der Temperatur. In: Zeitschrift für Physik. 175. 1963, pp 70-104. - Arzéliès, Henri: Relativistic kinematics. Oxford: Pergamon, 1966. 298 pages. - Landsberg, P. T.: Concepts in special relativistic thermodynamics. In: Essays in physics. Ed.: G. T. K. Conn, G. N. Fowler. London 1970.

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