

Poincare and relativity: the logic of the 1905 Palermo Memoir

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We highlight four points which have been ignored or underestimated before and which allow a better understanding of "Sur la dynamique de l'electron": (i) the use by Poincare of active Lorentz transformations (boosts); (ii) the necessity, required by mechanics, of a group condition $L=1$ eliminating dilations; (iii) the key role of the action (electromagnetic or not) and of its invariance; (iv) the mathematical status of electron models as example or counter-example.

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