

Mathematicians vs Physicists: Disputes on Priority

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Abstract

Once Isaac Newton wrote: Amicus Plato - amicus Aristoteles - magis amica veritas. (or English translation: Plato is my friend - Aristotle is my friend - but my greatest friend is the truth.) Following this guidance we review disputes on priority between physicists and mathematicians. We discuss Hooke - Newton disputes on a priority of their discoveries of the gravity law. We remind a contribution by H. Poincare in special relativity and his discovery of the $E=mc^2$ law. We discuss a correspondence between D. Hilbert and A. Einstein in 1915 before their discoveries of the final version of the gravity law. We review different ways of Hilbert and Einstein to derive so-called Einstein equations in general relativity.