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Details on Lagrange's Method as Described by Maxwell in his Electromagnetic Theory

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Both in *A treatise on electricity and magnetism* (1873, 2 vols.) and *A dynamical theory of the electromagnetic field* (1864) Maxwell converted in a mathematical language the main content of the *Experimental Researches in Electricity* by Michael Faraday. He went beyond the Newtonian approach reaching a new physics mathematics based on the concept of energy instead of that of force. First, he mathematically stressed the three –as he called –Lagrange's methods and then used Lagrangian formulating through the idea of connected mechanical system described by means of Lagrange's [...] equations of motion of a connected system. In our talk, the first part of the Lagrangian and its specific formulation adopted by Maxwell are discussed.

****Selected References ****

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