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A transition in the notion of interaction in classical mechanics

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The aim of this contribution is to show a transition in the notion of interaction among bodies from early Newtonian to Post-Newtonian theory of (no-relativistic) mechanics. In Newton's early mechanics, the two notions of impenetrable body or solid and interaction by shock or contact had the role of elementary concepts. The interaction at a distance had the value of phenomenological model, useful to describe the measurable effects of accelerations of separated (in space) bodies. In the post-Newtonian mechanics, the notion of interaction at a distance assumes the value of fundamental interaction as can be deduced in the framework of massive ideal point-like interacting particles.

Primary authors: Prof. PAGANO, angelo (INFN Catania and Dipartimento di Fisica "e. Majrana"); Dr PAGANO, emanuele V. (INF - National laboratory of SOUTH)

Presenter: Prof. PAGANO, angelo (INFN Catania and Dipartimento di Fisica "e. Majrana")

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