

THE SOLUTION PROPOSED IN APRIL 1978:

Generalize 20th century applied mathematics in an isotopic, that is, axiom-preserving way via the lifting of all associative products $A \times B$ between arbitrary quantities A, B into the form:

$$A \times B \rightarrow A \hat{\times} B = A \times \hat{T} \times B,$$

where \hat{T} is an arbitrary quantity, under the sole condition of being positive-definite, thus having an unrestricted (non-singular) functional dependence, with realization of the type

$$\hat{T} = \text{Diag.}(1/n_1^2, 1/n_2^2, 1/n_3^2] \times e^{\Gamma(t,r,v,p,\psi)} > 0$$

The terms n_1^2, n_2^2, n_3^2 represent extended, non-spherical; and deformable particles, while the term $\exp \Gamma$ represents non-linear, non-local and non-Hamiltonian forces.

R. M. Santilli, "On a possible Lie-admissible covering of Galilei's relativity in Newtonian mechanics for nonconservative and Galilei form-noninvariant systems," *Hadronic J.* **1**, 223-423 (1978),
<http://www.santilli-foundation.org/docs/Santilli-58.pdf>