

FIRST PHYSICAL APPLICATION: PROPOSAL OF HADRONIC MECHANICS (1978):

Non-unitary axiom-preserving Isotopy of quantum mechanics (EPR Argument)

Heisenberg-Santilli IsoEquation

$$i \times \frac{dA}{dt} = [A \hat{\times} H - H \hat{\times} A = A \times \hat{T} \times H - H \times \hat{T} \times A,$$

$$A(t) = U(t) \times A(0) \times U^\dagger(t) = e^{H\hat{T}t} \times A(t) \times e^{-it\hat{T}H},$$

Schrödinger-Santilli IsoEquation

$$H \hat{\times} |\psi\rangle = H(\mathbf{r}, \mathbf{p}) \times \hat{T}(\mathbf{t}, \mathbf{v}, \mathbf{p}, \psi, \dots) \times |\psi\rangle = \mathbf{E} \times |\psi\rangle$$

R. M. Santilli, "Need of subjecting to an experimental verification the validity within a hadron of Einstein special relativity and Pauli exclusion principle," Hadronic J. **1**, 574-901 (1978), available in free pdf download from <http://www.santilli-foundation.org/docs/Santilli-73.pdf>

FIRST APPLICATION (Section 5): the synthesis of the π^0 from the positronium

$$\pi^0 = (e_\uparrow^-, e_\downarrow^+)_{\text{hm}}$$

DESIRED APPLICATION: The synthesis of the neutron inside stars

$$p^+ + e^- \rightarrow n + \nu$$