

IsoInvariance of the IsoUnit

$$\hat{\mathbf{I}} \rightarrow \hat{\mathbf{I}}^* = \hat{\mathbf{U}} \hat{\times} \hat{\mathbf{I}} \hat{\times} \hat{\mathbf{U}}^\dagger \equiv \hat{\mathbf{I}}$$

IsoInvariance of the IsoProduct

$$\hat{\mathbf{A}} \hat{\times} \hat{\mathbf{B}} \rightarrow \hat{\mathbf{U}} \hat{\times} (\hat{\mathbf{A}} \times \hat{\mathbf{T}} \times \hat{\mathbf{B}}) \hat{\times} \hat{\mathbf{U}}^\dagger \equiv \hat{\mathbf{A}}^* \times \hat{\mathbf{T}}^* \times \hat{\mathbf{B}}^*, \quad \hat{\mathbf{T}}^* \equiv \hat{\mathbf{T}}$$

IsoInvariance of the Lie-Santilli IsoProduct

$$[\hat{\mathbf{A}}; \hat{\mathbf{B}}] \rightarrow \hat{\mathbf{U}} \hat{\times} [\hat{\mathbf{A}}; \hat{\mathbf{B}}] \hat{\times} \hat{\mathbf{U}}^\dagger = [\hat{\mathbf{A}}^*; \hat{\mathbf{B}}^*]$$

IsoInvariance of tIsoExpectation Values

$$< \hat{\psi} | \hat{\times} \hat{\mathbf{A}} \hat{\times} | \hat{\psi} > \rightarrow \hat{\mathbf{U}} \hat{\times} (< \hat{\psi} | \hat{\times} \hat{\mathbf{A}} \hat{\times} | \hat{\psi} >) \hat{\times} \hat{\mathbf{U}}^\dagger = < \hat{\psi}^* | \hat{\times} \hat{\mathbf{A}}^* \hat{\times} | \hat{\psi}^* >, \quad \hat{\mathbf{A}}^* \equiv \hat{\mathbf{A}}$$

R. M. Santilli, *Elements of Hadronic Mechanics*,
Volumes I and II Ukraine Academy of Sciences, Kiev, 1995,
<http://www.santilli-foundation.org/docs/Santilli-300.pdf>
<http://www.santilli-foundation.org/docs/Santilli-301.pdf>