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Quantization of Relativistic action in multiples of Planck's (constant) Quantum of action AHMAD REZA ESTAKHR, Researcher — Quantization of Relativistic action in multiples of Planck's (constant) Quantum of action. a new Postulate for special relativity theory. The third Postulate of special relativity: Relativistic action is limited to Planck's Quantum of action. $\mathcal{S} = \int_{\sqcup_\rangle}^{\sqcup_\{} \mathcal{L} \lceil \sqcup = \backslash . \langle \quad \backslash \in \mathcal{Z}$. where the $\mathcal{L} = -\Updownarrow_\wr \rfloor^{\in} \gamma^{-\infty}$, is the Lagrangian. action for a point particle in a curved spacetime. $\mathcal{S} = -\mathcal{M} \rfloor \int \lceil \int = -\mathcal{M} \rfloor \int_{\xi_\prime}^{\xi_\infty} \sqrt{\}_{\mu\nu}(\S) \frac{\lceil \S^\mu(\xi)}{\lceil \xi} \frac{\lceil \S^\nu(\xi)}{\lceil \xi}} \quad \lceil \xi = \backslash \langle$ Quantization of Nambu-Goto action: $\mathcal{S} = -\frac{\infty}{\in \pi \alpha'} \int \mathrm{d}^2 \Sigma \sqrt{\dot{\mathrm{X}}^2 - \mathrm{X}'^2} = \mathrm{nh} \quad \mathrm{n} \in \mathrm{Z}$. point: The action $S = -E_0 \ \Delta\tau$ of a relativistic particle is minus the rest energy $E_0 = m_0 c^2$ times the change $\Delta\tau = \tau_f - \tau_i$ in proper time. Single relativistic particle When relativistic effects are significant, the action of a point particle of mass "m" travelling a world line "C" parametrized by the proper time τ is :$S = -m_o c^2 \int_C d\tau$. If instead, the particle is parametrized by the coordinate time "t" of the particle and the coordinate time ranges from t_1 to t_2, then the action becomes :$\int_{t1}^{t2} \mathcal{L} \lceil \sqcup$ where the Lagrangian is :$\mathcal{L} = -\Updownarrow_\wr \rfloor^{\in} \sqrt{\infty - \frac{\sqsubseteq^{\in}}{\rceil^{\in}}}$.

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