

$$\Psi = \int e^{\frac{i}{\hbar} \int \left(\frac{R}{16\pi G} - \frac{1}{4} F^2 + \bar{\psi} i \not{D} \psi - \lambda \varphi \bar{\psi} \psi + |D\varphi|^2 - V(\varphi) \right)}$$

The diagram illustrates the components of the Standard Model Lagrangian used in the path integral formulation of quantum field theory. The central equation is:

$$\Psi = \int e^{\frac{i}{\hbar} \int \left(\frac{R}{16\pi G} - \frac{1}{4} F^2 + \bar{\psi} i \not{D} \psi - \lambda \varphi \bar{\psi} \psi + |D\varphi|^2 - V(\varphi) \right)}$$
 The components are linked to the equation as follows:

- Schrödinger wave function**: Points to Ψ .
- Euler exponential**: Points to the e^{\dots} term.
- Planck quantum**: Points to \hbar .
- Newton gravitation**: Points to R (Ricci scalar).
- Dirac relativistic wave function**: Points to $\bar{\psi} i \not{D} \psi$.
- Kobayashi-Maskawa CKM matrix**: Points to λ .
- Higgs Boson**: Points to φ .
- path integral Feynmann**: Points to the overall integral \int .
- imaginary unit**: Points to i .
- spacetime-relativity Einstein**: Points to G (Newton's constant).
- strong/weak/e.m. interactions Maxwell Yang-Mills**: Points to F^2 .
- $\varphi - \psi$ interaction Yukawa**: Points to $\lambda \varphi \bar{\psi} \psi$.