

Title: Lecture - QFT I, PHYS 601

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Collection/Series: Quantum Field Theory I (Core), PHYS 601, October 7 - November 6, 2024

Subject: Condensed Matter, Particle Physics, Quantum Fields and Strings

Date: October 29, 2024 - 9:00 AM

URL: <https://pirsa.org/24100036>

Rules

$$\mathcal{L}_{\text{Yukawa}} = -\lambda \phi \bar{\psi} \psi$$

Dirac m
KG M



$$\langle 0 | T \psi_4 \psi_3 \bar{\psi}_1 \bar{\psi}_2 | 0 \rangle$$

$$\langle 0 | T \psi_4 \psi_3 \bar{\psi}_1 \bar{\psi}_2 | 0 \rangle \text{ oth order}$$

$$\langle 0 | T \psi_4 \psi_3 \bar{\psi}_1 \bar{\psi}_2 \underbrace{\left(\int \lambda \phi_x \bar{\psi}_x \psi_x \right)}_{\text{2nd order}} | 0 \rangle = 0$$

$$\langle 0 | T \dots \int \lambda \phi_y \bar{\psi}_y \psi_y | 0 \rangle$$