

PHYS 610. QUANTUM FIELD THEORY 1.

Credits: 3

Offered by: Physics (Graduate Studies)

Terms offered: Fall 2025

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Description

Relativistic wave equations for spin-0, spin-1/2, and spin-1 particles. Review of Lagrangian and Hamiltonian formalisms for classical mechanics. Canonical, Feynman path-integral, and Schwinger external-source quantization techniques. Relativistic quantum field theories for free spin-0, spin-1/2, and spin-1 particles. Interactions, perturbation theory, and Feynman diagrams.

- 3 hours

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