

# NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

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NPTEL Video Course - Physics - Quantum Field Theory

Subject Co-ordinator - Dr. Prasanta Tripathy

Co-ordinating Institute - IIT - Madras

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

- Lecture 1 - Introduction
- Lecture 2 - Introduction to Classical Field Theory
- Lecture 3 - Quantization of Real Scalar Field - I
- Lecture 4 - Quantization of Real Scalar Field - II
- Lecture 5 - Quantization of Real Scalar Field - III
- Lecture 6 - Quantization of Real Scalar Field - IV
- Lecture 7 - Quantization of Complex Scalar Field
- Lecture 8 - Interacting Field Theory - I
- Lecture 9 - Interacting Field Theory - II
- Lecture 10 - Interacting Field Theory - III
- Lecture 11 - Interacting Field Theory - IV
- Lecture 12 - Interacting Field Theory - V
- Lecture 13 - Interacting Field Theory - VI
- Lecture 14 - Interacting Field Theory - VII
- Lecture 15 - Quantuzation of Electromagnetic Field - I
- Lecture 16 - Quantuzation of Electromagnetic Field - II
- Lecture 17 - Fermion Quantization - I
- Lecture 18 - Fermion Quantization - II
- Lecture 19 - Fermion Quantization - III
- Lecture 20 - Fermion Quantization - IV
- Lecture 21 - Fermion Quantization - V
- Lecture 22 - Fermion Quantization - VI
- Lecture 23 - The S-Matrix Expansion in QED - I
- Lecture 24 - The S-Matrix Expansion in QED - II
- Lecture 25 - Feynman Rules in QED - I
- Lecture 26 - Feynman Rules in QED - II
- Lecture 27 - Compton Scattering - I
- Lecture 28 - Compton Scattering - II
- Lecture 29 - Compton Scattering - III

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Lecture 30 - Moller Scattering - I  
Lecture 31 - Moller Scattering - II  
Lecture 32 - Vertex Correction - I  
Lecture 33 - Vertex Correction - II  
Lecture 34 - Vertex Correction - III  
Lecture 35 - Vertex Correction - IV  
Lecture 36 - Electron Selfenergy  
Lecture 37 - Photon Selfenergy - I  
Lecture 38 - Photon Selfenergy - II