

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

NPTEL Video Course - Physics - NOC:Nuclear and Particle Physics

Subject Co-ordinator - Dr. P. Poullose

Co-ordinating Institute - IIT - Guwahati

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

Lecture 1 - Introduction
Lecture 2 - Nuclear Properties
Lecture 3 - Properties of Nuclear Force
Lecture 4 - Deuteron
Lecture 5 - Nucleons Scattering
Lecture 6 - Nuclear Models - I
Lecture 7 - Nuclear Models - II
Lecture 8 - Radioactive Decay - General Properties
Lecture 9 - Nuclear Alpha Decay
Lecture 10 - Nuclear Beta decay
Lecture 11 - Beta-decay details
Lecture 12 - Gamma decay
Lecture 13 - Nuclear Scattering - Preliminaries
Lecture 14 - Types of Reactions
Lecture 15 - Particle Accelerators - I
Lecture 16 - Particle Accelerators - II
Lecture 17 - Detectors
Lecture 18 - Elementary Particles - Introduction and Overview
Lecture 19 - Quark Model - I
Lecture 20 - Quark Model - II
Lecture 21 - Quark Model - III
Lecture 22 - Structure of the Hadron - Nucleus
Lecture 23 - Structure of the Hadron - Proton
Lecture 24 - Deep Inelastic Scattering
Lecture 25 - Relativistic Kinematics
Lecture 26 - Klein-Gordon Equation
Lecture 27 - Interaction of charged scalar with EM field
Lecture 28 - Relativistic Electrodynamics
Lecture 29 - Quantum Electrodynamics

Get Digi-MAT (Digital Media Access Terminal) For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

www.digimat.in

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

- Lecture 30 - Interaction between charged scalars
- Lecture 31 - Dirac Equation - 1
- Lecture 32 - Dirac Equation - 2
- Lecture 33 - Interacting charged fermions - 1
- Lecture 34 - Interacting charged fermions - 2
- Lecture 35 - Interacting charged fermions - 3
- Lecture 36 - Scattering Cross Section Revisited - 1
- Lecture 37 - Scattering Cross Section Revisited - 2
- Lecture 38 - Weak Interactions - 1
- Lecture 39 - Weak Interactions - 2
- Lecture 40 - Lagrangian Framework
- Lecture 41 - Gauge Symmetry - U(1)
- Lecture 42 - Electroweak Theory - 1
- Lecture 43 - Electroweak Theory - 2
- Lecture 44 - SSB and the Higgs Mechanism