NPTEL Video Course - Physics - NOC:Foundations of Quantum Theory: Non-Relativistic Approach

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Co-ordinating Institute - IISER - Mohali

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

Lecture 1 - Axiomatic Approach to Quantum Mechanics - Part 1
Lecture 2 - Axiomatic Approach to Quantum Mechanics - Part 2
Lecture 3 - Linear Vector Space
Lecture 4 - Linear Operators - Part 1
Lecture 5 - Linear Operators - Part 2
Lecture 6 - Qubits: Introduction
Lecture 7 - Qubits: State Tomography
Lecture 8 - Qubits: Density Operators - Part 1
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Lecture 10 - Qubits: Unitary Transformation
Lecture 11 - Qubits: Bloch Sphere
Lecture 12 - Composite Systems: Pure States, Schmidt Decomposition, Operators Acting on Composite Systems - F
Lecture 13 - Composite Systems: Pure States, Schmidt Decomposition, Operators Acting on Composite Systems - F
Lecture 14 - Composite Systems: Density Operators
Lecture 15 - Quantum Maps: Positive Maps
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Lecture 18 - Measurements: Introduction
Lecture 19 - Measurements: POVM
Lecture 20 - Measurements: Optical Scheme for POVM
Lecture 21 - Measurements: State Discrimination
Lecture 22 - Measurements: Weak Measurements
Lecture 23 - Entanglement: Introduction
Lecture 24 - Entanglement Measures
Lecture 25 - EPR Paradox and Bohrâ s Argument, Bohmâ s Argument and Merminâ s Argument - Part 1
Lecture 26 - EPR Paradox and Bohrâ s Argument, Bohmâ s Argument and Merminâ s Argument - Part 2
Lecture 27 - Hidden Variable Theory, Bell model, Bell Inequality, Bell CHSH Inequality
Lecture 28 - Open Quantum Systems: Introduction - Part 1
Lecture 29 - Open Quantum Systems: Introduction - Part 2

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Lecture 30 - Open Quantum Systems: Introduction - Part 3
Lecture 31 - Open Quantum Systems: Optical Master Equation, Thermalization
Lecture 32 - Open Quantum Systems: Solving Master Equaitons
Lecture 33 - Open Quantum Systems: Quantum Trajectory Aproach
Lecture 34 - Open Quanutm Systems: Decoherence