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	Autore	KOTHARI, C.R.
	Titolo	An introduction to operational research / C.R. Kothari
	Pubbl/distr/stampa	New Delhi : Vikas publishng house, 1992
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	Descrizione fisica	XV, 522 p ; 22 cm
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2.	Record Nr.	UNINA9911007078703321
	Autore	Pauling Linus
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	ISBN	9780486134932 0486134938 9781621986287 1621986284
	Edizione	[1st ed.]
	Descrizione fisica	1 online resource (752 p.)
	Collana	Dover Books on Physics
	Altri autori (Persone)	WilsonE. Bright <1908-1992.> (Edgar Bright)
	Disciplina	530.1/2
	Soggetti	Quantum theory Wave mechanics Chemistry, Physical and theoretical Physics Physical Sciences & Mathematics Atomic Physics
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Note generali	Description based upon print version of record.
Nota di contenuto	Cover; Title Page; Copyright Page; Preface; Contents; Chapter I: Survey of Classical Mechanics; 1. Newton's Equations of Motion in the Lagrangian Form; 1a. The Three-dimensional Isotropic Harmonic Oscillator; 1b. Generalized Coordinates; 1c. The Invariance of the Equations of Motion in the Lagrangian Form; 1d. An Example: The Isotropic Harmonic Oscillator in Polar Coordinates; 1e. The Conservation of Angular Momentum; 2. The Equations of Motion in the Hamiltonian Form; 2a. Generalized Momenta; 2b. The Hamiltonian Function and Equations; 2c. The Hamiltonian Function and the Energy 2d. A General Example 3. The Emission and Absorption of Radiation; 4. Summary of Chapter 1; Chapter II: The Old Quantum Theory; 5. The Origin of the Old Quantum Theory; 5a. The Postulates of Bohr; 5b. The Wilson-Sommerfeld Rules of Quantization; 5c. Selection Rules. The Correspondence Principle; 6. The Quantization of Simple Systems; 6a. The Harmonic Oscillator. Degenerate States; 6b. The Rigid Rotator; 6c. The Oscillating and Rotating Diatomic Molecule; 6d. The Particle in a Box; 6e. Diffraction by a Crystal Lattice; 7. The Hydrogen Atom; 7a. Solution of the Equations of Motion 7b. Application of the Quantum Rules. The Energy Levels 7c. Description of the Orbits; 7d. Spatial Quantization; 8. The Decline of the Old Quantum Theory; Chapter III: The Schrodinger Wave Equation with the Harmonic Oscillator as an Example; 9. The Schrodinger Wave Equation; 9a. The Wave Equation Including the Time; 9b. The Amplitude Equation; 9c. Wave Functions. Discrete and Continuous Sets of Characteristic Energy Values; 9d. The Complex Conjugate Wave Function $\psi^*(x, t)$; 10. The Physical Interpretation of the Wave Functions; 10a. $\psi^*(x, t)\psi(x, t)$ as a Probability Distribution Function 10b. Stationary States 10c. Further Physical Interpretation. Average Values of Dynamical Quantities; 11. The Harmonic Oscillator in Wave Mechanics; 11a. Solution of the Wave Equation; 11b. The Wave Functions for the Harmonic Oscillator and their Physical Interpretation; 11c. Mathematical Properties of the Harmonic Oscillator Wave Functions; Chapter IV: The Wave Equation for a System of Point Particles in Three Dimensions; 12. The Wave Equation for a System of Point Particles; 12a. The Wave Equation Including the Time; 12b. The Amplitude Equation 12c. The Complex Conjugate Wave Function $\psi^*(x_1 \dots x_N, t)$ 12d. The Physical Interpretation of the Wave Functions; 13. The Free Particle; 14. The Particle in a Box; 15. The Three-dimensional Harmonic Oscillator in Cartesian Coordinates; 16. Curvilinear Coordinates; 17. The Three-dimensional Harmonic Oscillator in Cylindrical Coordinates; Chapter V: The Hydrogen Atom; 18. The Solution of the Wave Equation by the Polynomial Method and the Determination of the Energy Levels; 18a. The Separation of the Wave Equation. The Translational Motion; 18b. The Solution of the Equation 18c. The Solution of the Equation
Sommario/riassunto	When this classic text was first published in 1935, it fulfilled the goal of its authors ""to produce a textbook of practical quantum mechanics for the chemist, the experimental physicist, and the beginning student of theoretical physics."" Although many who are teachers today once worked with the book as students, the text is still as valuable for the same undergraduate audience. Two-time Nobel Prize winner Linus

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