

1. Record Nr.	UNINA9910154766603321
Autore	Young Hugh D.
Titolo	Sears and Zemansky's university physics : with modern physics // Hugh D. Young, Roger A. Freedman
Pubbl/distr/stampa	Harlow, England : , : Pearson, , 2016
ISBN	1-292-10032-X
Edizione	[Fourteenth edition, Global edition.]
Descrizione fisica	1 online resource (1593 p.) : ill
Collana	Always learning
Disciplina	530
Soggetti	Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index. Adapted from United States ed.
Nota di contenuto	MECHANICS -- 1. Units, Physical Quantities, and Vectors -- 2. Motion Along a Straight Line -- 3. Motion in Two or Three Dimensions -- 4. Newton's Laws of Motion -- 5. Applying Newton's Laws -- 6. Work and Kinetic Energy -- 7. Potential Energy and Energy Conservation -- 8. Momentum, Impulse, and Collisions -- 9. Rotation of Rigid Bodies -- 10. Dynamics of Rotational Motion -- 11. Equilibrium and Elasticity -- 12. Fluid Mechanics -- 13. Gravitation -- 14. Periodic Motion -- WAVES/ACOUSTICS -- 15. Mechanical Waves -- 16. Sound and Hearing -- THERMODYNAMICS -- 17. Temperature and Heat -- 18. Thermal Properties of Matter -- 19. The First Law of Thermodynamics -- 20. The Second Law of Thermodynamics -- ELECTROMAGNETISM -- 21. Electric Charge and Electric Field -- 22. Gauss's Law -- 23. Electric Potential -- 24. Capacitance and Dielectrics -- 25. Current, Resistance, and Electromotive Force -- 26. Direct-Current Circuits -- 27. Magnetic Field and Magnetic Forces -- 28. Sources of Magnetic Field -- 29. Electromagnetic Induction -- 30. Inductance -- 31. Alternating Current -- 32. Electromagnetic Waves -- OPTICS -- 33. The Nature and Propagation of Light -- 34. Geometric Optics -- 35. Interference -- 36. Diffraction -- MODERN PHYSICS -- 37. Relativity -- 38. Photons: Light Waves Behaving as Particles -- 39. Particles Behaving as Waves -- 40. Quantum Mechanics I: Wave Functions -- 41. Quantum Mechanics II: Atomic Structure -- 42. Molecules and Condensed Matter -- 43. Nuclear Physics -- 44. Particle Physics and Cosmology.

## Sommario/riassunto

For courses in calculus-based physics. The benchmark for clarity and rigor, influenced by the latest in education research. Since its first edition, University Physics has been revered for its emphasis on fundamental principles and how to apply them. This text is known for its clear and thorough narrative, as well as its uniquely broad, deep, and thoughtful sets of worked examples that provide students with key tools for developing both conceptual understanding and problem-solving skills. The fourteenth edition improves the defining features of the text while adding new features influenced by education research to teach the skills needed by today's students. A focus on visual learning, new problem types, and pedagogy informed by MasteringPhysics metadata headline the improvements designed to create the best learning resource for physics students.

---