1. Record Nr. UNINA9910153114503321

Autore	Giancoli Douglas C.
Titolo	Physics for scientists & engineers . Volume 1 : with modern physics / / Douglas C. Giancoli
Pubbl/distr/stampa	Harlow, England : , : Pearson, , [2014] Â©2014
ISBN	1-292-03729-6
Edizione	[Fourth, Pearson new international edition.]
Descrizione fisica	1 online resource (iii, 672 pages) : illustrations (some colour)
Collana	Always Learning
Disciplina	530
Soggetti	Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Pearson custom library" "From Physics for scientists & engineers with modern physics. Fourth edition [Chapters 1-20]. ©2009" Includes index.
Nota di contenuto	1. Introduction, measurement, estimating -- Problem set (4/e): Introduction, measurement, estimating -- 2. Describing motion: kinematics in one dimension -- Problem set (4/e): Describing motion: kinematics in one dimension -- 3. Kinematics in two or three dimensions; Vectors -- Problem set (4/e): Kinematics in two or three dimensions; Vectors -- 4. Dynamics Newton's laws of motion -- Problem set (4/e): Dynamics Newton's laws of motion -- 5. Using Newtons' laws: friction, circular motion, drag forces -- Problem set (4/e): Using Newtons' laws: friction, circular motion, drag forces -- 6. Gravitation and Newton's synthesis -- Problem set (4/e): Gravitation and Newton's synthesis -- 7. Work and energy -- Problem set (4/e): Work and energy -- 8. Conservation of energy -- Problem set (4/e): Conservation of energy -- 9. Linear momentum -- Problem set (4/e): Linear momentum -- 10. Rotational motion -- Problem set (4/e): Rotational motion -- 11. Angular momentum; General rotation -- Problem set (4/e): Angular momentum; General rotation-- 12. Static equilibrium; Elasticity and fracture -- Problem set (4/e): Static equilibrium; Elasticity and fracture -- 13. Fluids -- Problem set (4/e): Fluids -- 14. Oscillators -- Problem set (4/e): Oscillators -- 15. Wave motion -- Problem set (4/e): Wave

motion -- 16. Sound -- Problem set (4/e): Sound -- 17. Temperature, thermal expansion, and the ideal gas law -- Problem set (4/e): Temperature, thermal expansion, and the ideal gas law -- 18. Kinetic theory of gases -- Problem set (4/e): Kinetic theory of gases -- 19. Heat and the first law of thermodynamics -- Problem set (4/e): Heat and the first law of thermodynamics -- 20. Second law of thermodynamics -- Problem set (4/e): Second law of thermodynamics --
Appendix: Gravitational force due to a spherical mass distribution -- Appendix: differential from of Maxwell's equations -- Periodic table of the elements.

Sommario/riassunto

For the calculus-based General Physics course primarily taken by engineers and science majors (including physics majors). This long-awaited and extensive revision maintains Giancoli's reputation for creating carefully crafted, highly accurate and precise physics texts. Physics for Scientists and Engineers combines outstanding pedagogy with a clear and direct narrative and applications that draw the student into the physics. The new edition also features an unrivaled suite of media and online resources that enhance the understanding of physics. This book is written for students. It aims to explain physics in a readable and interesting manner that is accessible and clear, and to teach students by anticipating their needs and difficulties without oversimplifying. Physics is a description of reality, and thus each topic begins with concrete observations and experiences that students can directly relate to. We then move on to the generalizations and more formal treatment of the topic. Not only does this make the material more interesting and easier to understand, but it is closer to the way physics is actually practiced.