

1. Record Nr.	UNINA9910697621903321
Titolo	Civil engineer guide to expeditionary force protection [[electronic resource]]
Pubbl/distr/stampa	[Washington, D.C.] : , : Dept. of the Air Force, , [2008]
Descrizione fisica	97 pages : digital, PDF file
Collana	Air Force handbook ; ; 10-222, v. 3
Soggetti	Military field engineering Soldiers - Protection - United States Fortification, Field Handbooks and manuals.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from title screen (viewed on Oct. 20, 2008). "Supersedes: AFH 10-222V3, 1 June 1997." "1 May 2008." "OPR: HQ AFCESA/CEXX."
Nota di bibliografia	Includes bibliographical references (pages 72-74).

2. Record Nr.	UNINA9910300419203321
Autore	Prytz Kjell
Titolo	Electrodynamics: The Field-Free Approach : Electrostatics, Magnetism, Induction, Relativity and Field Theory // by Kjell Prytz
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-13171-0
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (XXV, 361 p. 204 illus., 4 illus. in color.)
Collana	Undergraduate Lecture Notes in Physics, , 2192-4791
Disciplina	537.6
Soggetti	Optics Electrodynamics Microwaves Optical engineering Magnetism Magnetic materials Gravitation Lasers Photonics Classical Electrodynamics Microwaves, RF and Optical Engineering Magnetism, Magnetic Materials Classical and Quantum Gravitation, Relativity Theory Optics, Lasers, Photonics, Optical Devices
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface -- List of Symbols -- Formulae -- Basic Principles -- Electrodynamics -- Electrodynamics Energy -- Macroscopic Systems -- Conductors and Resistive Effects -- Electric Circuits -- Electric and Magnetic Dipoles -- Material Properties -- Motional Consequences -- Field Theory -- Antenna Theory – the Loop and the Dipole -- Appendix A Electric Multipoles -- Appendix B Magnetic Multipoles -- Appendix C Magnetic Energy in the Presence of a Material -- Appendix D Solutions to Exercises -- Appendix E General Magnetic

Sommario/riassunto

This book is intended as an undergraduate textbook in electrodynamics at basic or advanced level. The objective is to attain a general understanding of the electrodynamic theory and its basic experiments and phenomena in order to form a foundation for further studies in the engineering sciences as well as in modern quantum physics. The outline of the book is obtained from the following principles:

- Base the theory on the concept of force and mutual interaction
- Connect the theory to experiments and observations accessible to the student
- Treat the electric, magnetic and inductive phenomena cohesively with respect to force, energy, dipoles and material
- Present electrodynamics using the same principles as in the preceding mechanics course
- Aim at explaining that theory of relativity is based on the magnetic effect
- Introduce field theory after the basic phenomena have been explored in terms of force

Although electrodynamics is described in this book from its 1st principles, prior knowledge of about one semester of university studies in mathematics and physics is required, including vector algebra, integral and differential calculus as well as a course in mechanics, treating Newton's laws and the energy principle. The target groups are physics and engineering students, as well as professionals in the field, such as high school teachers and employees in the telecom industry. Chemistry and computer science students may also benefit from the book.