Record Nr. UNINA9910299817603321 Autore Frezza Fabrizio Titolo A Primer on Electromagnetic Fields [[electronic resource] /] / by Fabrizio Frezza Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2015 **ISBN** 3-319-16574-7 Edizione [1st ed. 2015.] 1 online resource (177 p.) Descrizione fisica Disciplina 530.15 535.2 537.6 620 621.3 Soggetti Microwaves Optical engineering **Optics** Electrodynamics Mathematical physics Microwaves, RF and Optical Engineering Classical Electrodynamics Mathematical Physics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Fundamental theorems and equations of electromagnetism --Properties of plane electromagnetic waves -- Introduction to transmission lines -- Guided electromagnetic propagation -- Green's functions. Sommario/riassunto This book is a concise introduction to electromagnetics and electromagnetic fields that covers the aspects of most significance for engineering applications by means of a rigorous, analytical treatment. After an introduction to equations and basic theorems, topics of

fundamental theoretical and applicative importance, including plane waves, transmission lines, waveguides, and Green's functions, are

discussed in a deliberately general way. Care has been taken to ensure that the text is readily accessible and self-consistent, with conservation of the intermediate steps in the analytical derivations. The book offers the reader a clear, succinct course in basic electromagnetic theory. It will also be a useful lookup tool for students and designers.