

1. Record Nr.	UNISA996211440503316
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Titolo	Differential forms in electromagnetics // Ismo V. Lindell
Pubbl/distr/stampa	Piscataway, New Jersey : , : IEEE Press, , c2004 [Piscataway, New Jersey] : , : IEEE Xplore, , [2005]
ISBN	1-280-55709-5 9786610557097 0-471-72308-8 0-471-72309-6
Edizione	[1st ed.]
Descrizione fisica	1 PDF ([xv], 253 pages) : illustrations
Collana	IEEE Press series on electromagnetic wave theory ; ; 27
Disciplina	537/.0151
Soggetti	Electromagnetism - Mathematics Differential forms Electricity & Magnetism Physics Physical Sciences & Mathematics
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	Multivectors -- Dyadic algebra -- Differential forms -- Electromagnetic fields and sources -- Medium, boundary, and power conditions -- Theorems and transformations -- Electromagnetic waves.
Sommario/riassunto	An introduction to multivectors, dyadics, and differential forms for electrical engineers While physicists have long applied differential forms to various areas of theoretical analysis, dyadic algebra is also the most natural language for expressing electromagnetic phenomena mathematically. George Deschamps pioneered the application of differential forms to electrical engineering but never completed his work. Now, Ismo V. Lindell, an internationally recognized authority on differential forms, provides a clear and practical introduction to replacing classical Gibbsian vector calculus with the mathematical formalism of differential forms. In Differential Forms in Electromagnetics, Lindell simplifies the notation and adds memory aids in order to ease the reader's leap from Gibbsian analysis to differential

forms, and provides the algebraic tools corresponding to the dyadics of Gibbsian analysis that have long been missing from the formalism. He introduces the reader to basic EM theory and wave equations for the electromagnetic two-forms, discusses the derivation of useful identities, and explains novel ways of treating problems in general linear (bi-anisotropic) media. Clearly written and devoid of unnecessary mathematical jargon, *Differential Forms in Electromagnetics* helps engineers master an area of intense interest for anyone involved in research on metamaterials.
