

1. Record Nr.	UNINA9910456186503321
Autore	Lebedev L. P
Titolo	Tensor analysis with applications in mechanics [[electronic resource] /] / Leonid P. Lebedev, Michael J. Cloud, Victor, A. Eremeyev
Pubbl/distr/stampa	Singapore ; ; Hackensack, N.J., : World Scientific, c2010
ISBN	1-282-76387-3 9786612763878 981-4313-99-8
Edizione	[[New ed.].]
Descrizione fisica	1 online resource (380 p.)
Altri autori (Persone)	CloudMichael J EremeyevVictor A
Disciplina	515.63
Soggetti	Calculus of tensors Electronic books.
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 (p. 355-357) and index.
Nota di contenuto	Foreword; Preface; Contents; Tensor Analysis; Applications in Mechanics; Appendix A Formulary; Appendix B Hints and Answers; Bibliography; Index
Sommario/riassunto	The tensorial nature of a quantity permits us to formulate transformation rules for its components under a change of basis. These rules are relatively simple and easily grasped by any engineering student familiar with matrix operators in linear algebra. More complex problems arise when one considers the tensor fields that describe continuum bodies. In this case general curvilinear coordinates become necessary. The principal basis of a curvilinear system is constructed as a set of vectors tangent to the coordinate lines. Another basis, called the dual basis, is also constructed in a special man