

1. Record Nr.	UNINA9910437905603321
Titolo	Generalized continua from the theory to engineering applications // Holm Altenbach, Victor A. Eremeyev, editors
Pubbl/distr/stampa	New York, : Springer, 2013
ISBN	9783709113714 3709113717
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (402 p.)
Collana	CISM courses and lectures, , 0254-1971 ; ; v. 541
Altri autori (Persone)	AltenbachHolm EremeyevVictor A
Disciplina	531.0151
Soggetti	Continuum mechanics - Mathematical models
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.
Nota di contenuto	On the roots of continuum mechanics in differential geometry -- a review -- Cosserat media -- Cosserat-type shells -- Cosserat-type rods -- Micromorphic media -- Electromagnetism and generalized continua -- Computational methods for generalized continua.
Sommario/riassunto	The need of generalized continua models is coming from practice. Complex material behavior sometimes cannot be presented by the classical Cauchy continua. At present the attention of the scientists in this field is focused on the most recent research items • new models, • application of well-known models to new problems, • micro-macro aspects, • computational effort, and • possibilities to identify the constitutive equations The new research directions are discussed in this volume - from the point of view of modeling and simulation, identification, and numerical methods.