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Titolo	2011 IEEEE Symposium on New Frontiers in Dynamic Spectrum Access Networks : (DySPAN 2011), Aachen, Germany, 3-6 May 2011
Pubbl/distr/stampa	[Place of publication not identified], : IEEE, 2011
ISBN	9781457701788 1457701782 9781457701764 1457701766
Disciplina	621.384
Soggetti	Spread spectrum communications Radio frequency allocation Electrical & Computer Engineering Engineering & Applied Sciences Telecommunications
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph

2. Record Nr. UNINA9910349511603321

Autore	Shapiro Ilya L
Titolo	A Primer in Tensor Analysis and Relativity / / by Ilya L. Shapiro
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-26895-0
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XVIII, 324 p. 17 illus.)
Collana	Undergraduate Lecture Notes in Physics, , 2192-4805
Disciplina	512.57 515.63
Soggetti	Mathematical physics Gravitation Electrodynamics Elementary particles (Physics) Quantum field theory Mathematical Methods in Physics Classical and Quantum Gravity Classical Electrodynamics Mathematical Physics Theoretical, Mathematical and Computational Physics Elementary Particles, Quantum Field Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Acknowledgements -- Preface -- Part I: Tensor Algebra and Analysis -- 1: Linear spaces, vectors and tensors -- 2: Operations over tensors, metric tensor -- 3: Symmetric, skew(anti) symmetric tensors and determinants -- 4: Curvilinear coordinates, local coordinate transformations -- 5: Derivatives of tensors, covariant derivates -- 6: Grad, div, rot and relations between them -- 7: Grad, div, rot and in cylindric and spherical coordinates -- 8: Curvilinear, surface and D-dimensional integrals -- 9: Theorems of Green, Stokes and Gauss -- 10: Solutions to the exercises from Part 1 -- Part II: Elements of Electrodynamics and Special Relativity -- 11 Maxwell equations and Lorentz transformations -- 12 Laws of relativistic mechanics -- 13

	Maxwell equations in relativistic form -- Part III Applications to General Relativity -- 14 Equivalence principle, covariance and curvature tensor -- 15 Einstein equations, Schwarzschild solution and gravitational waves -- 16 Basic elements of cosmology -- 17 Special sections -- Index.
Sommario/riassunto	This undergraduate textbook provides a simple, concise introduction to tensor algebra and analysis, as well as special and general relativity. With a plethora of examples, explanations, and exercises, it forms a well-rounded didactic text that will be useful for any related course. The book is divided into three main parts, all based on lecture notes that have been refined for classroom teaching over the past two decades. Part I provides students with a comprehensive overview of tensors. Part II links the very introductory first part and the relatively advanced third part, demonstrating the important intermediate-level applications of tensor analysis. Part III contains an extended discussion of general relativity, and includes material useful for students interested primarily in quantum field theory and quantum gravity. Tailored to the undergraduate, this textbook offers explanations of technical material not easily found or detailed elsewhere, includingan understandable description of Riemann normal coordinates and conformal transformations. Future theoretical and experimental physicists, as well as mathematicians, will thus find it a wonderful first read on the subject.