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	Autore	Pastor, Ludwig : von <OMONIMO NON IDENTIFICATO>
	Titolo	Vol. 13.: Storia dei Papi nel periodo della Restaurazione Cattolica e della Guerra dei Trent'anni : Gregorio 15. (1921-1623) ed Urbano 8. (1623-1644) / Ludovico barone von Pastor ; versione italiana di Pio Cenci
	Pubbl/distr/stampa	Roma, : Desclée & C. Ed. Pontifici, 1943
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	Soggetti	Urbano <papa ; 8.> - 1623-1644 Gregorio <papa ; 15.> - 1621-1623
	Lingua di pubblicazione	Italiano
	Formato	Materiale a stampa
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2.	Record Nr.	UNINA9910300539603321
	Autore	Scheck Florian
	Titolo	Classical Field Theory : On Electrodynamics, Non-Abelian Gauge Theories and Gravitation / / by Florian Scheck
	Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2018
	ISBN	3-662-55579-4
	Edizione	[2nd ed. 2018.]
	Descrizione fisica	1 online resource (XV, 464 p. 63 illus., 1 illus. in color.)
	Collana	Graduate Texts in Physics, , 1868-4513
	Disciplina	530.14
	Soggetti	Optics Electrodynamics Gravitation Classical Electrodynamics Classical and Quantum Gravitation, Relativity Theory
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## Nota di contenuto

Maxwell's Equations -- Symmetries and Covariance of the Maxwell Equations -- Maxwell Theory as a Classical Field Theory -- Simple Applications of Maxwell Theory -- Local Gauge Theories -- Classical Field Theory of Gravitation -- Bibliography -- Some Historical Remarks -- Exercises -- Selected Solutions of the Exercises.

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## Sommario/riassunto

Scheck's successful textbook presents a comprehensive treatment, ideally suited for a one-semester course. The textbook describes Maxwell's equations first in their integral, directly testable form, then moves on to their local formulation. The first two chapters cover all essential properties of Maxwell's equations, including their symmetries and their covariance in a modern notation. Chapter 3 is devoted to Maxwell's theory as a classical field theory and to solutions of the wave equation. Chapter 4 deals with important applications of Maxwell's theory. It includes topical subjects such as metamaterials with negative refraction index and solutions of Helmholtz' equation in paraxial approximation relevant for the description of laser beams. Chapter 5 describes non-Abelian gauge theories from a classical, geometric point of view, in analogy to Maxwell's theory as a prototype, and culminates in an application to the  $U(2)$  theory relevant for electroweak interactions. The last chapter 6 gives a concise summary of semi-Riemannian geometry as the framework for the classical field theory of gravitation. The chapter concludes with a discussion of the Schwarzschild solution of Einstein's equations and the classical tests of general relativity. The new concept of this edition presents the content divided into two tracks: the fast track for master's students, providing the essentials, and the intensive track for all wanting to get in depth knowledge of the field. Clearly labeled material and sections guide students through the preferred level of treatment. Numerous problems and worked examples will provide successful access to Classical Field Theory.

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