

1. Record Nr.	UNINA9910132313503321
Titolo	Modifications of Einstein's Theory of Gravity at Large Distances // edited by Eleftherios Papantonopoulos
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-10070-X
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (XVI, 426 p. 20 illus., 14 illus. in color.)
Collana	Lecture Notes in Physics, , 0075-8450 ; ; 892
Disciplina	531.14
Soggetti	Gravitation Mathematical physics Physics Cosmology Classical and Quantum Gravitation, Relativity Theory Mathematical Applications in the Physical Sciences Mathematical Methods in Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Part I: Modification of General Relativity: General Scalar-Tensor Theories -- Part II: Massive Gravity -- Part III: Further Modifications at Large Distances -- Index.
Sommario/riassunto	In the last few years modified gravity theories have been proposed as extensions of Einstein's theory of gravity. Their main motivation is to explain the latest cosmological and astrophysical data on dark energy and dark matter. The study of general relativity at small scales has already produced important results (cf e.g. LNP 863 Quantum Gravity and Quantum Cosmology) while its study at large scales is challenging because recent and upcoming observational results will provide important information on the validity of these modified theories. In this volume, various aspects of modified gravity at large scales will be discussed: high-curvature gravity theories; general scalar-tensor theories; Galileon theories and their cosmological applications; $F(R)$ gravity theories; massive, new massive and topologically massive gravity; Chern-Simons modifications of general relativity (including

holographic variants) and higher-spin gravity theories, to name but a few of the most important recent developments. Edited and authored by leading researchers in the field and cast into the form of a multi-author textbook at postgraduate level, this volume will be of benefit to all postgraduate students and newcomers from neighboring disciplines wishing to find a comprehensive guide for their future research.
