

1. Record Nr.	UNINA9911015871503321
Autore	Sidharth B. G
Titolo	The Dark Energy Paradigm : The Mysterious Universe // by B.G. Sidharth
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025
ISBN	9789819637454 9789819637447
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (241 pages)
Disciplina	530.12
Soggetti	Quantum theory Special relativity (Physics) Electrodynamics Statistical mechanics Gravitation Quantum Physics Special Relativity Classical Electrodynamics Statistical Mechanics Gravitational Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Dark Energy Universe -- Violation of Lorentz Symmetry -- The Enigmatic Neutrino -- The Bizarre Spacetime -- Mystery of the Missing Dark Matter -- Low-Dimensional Structures -- A Fifth Force in Nature -- An Explorer's Miscellany.
Sommario/riassunto	This book offers a compelling and philosophical exploration of the physical origins of inflation in the universe, grounded in the dimensional analysis of quantum mechanics and general relativity models. It posits that vacuum fluctuations drive inflation, presenting original ideas built upon the author's previous work. In the late 1990s, the author introduced the concept of dark energy and an accelerating universe, which was promptly confirmed by the observations of Perlmutter, Kirschner, and Riess. The discovery of dark energy has led

to several new paradigms, including the intriguing notion that spacetime is discrete, resembling a Cantor set. Additionally, the book provides the important insight that special relativity is founded on quantum mechanical amplitudes, rather than classical mechanics. Furthermore, the book delves into the noncommutative nature of spacetime. It investigates the potential existence of a fifth force, a new force, over and above the four well-known forces, supported by the experimental evidence that is analyzed and discussed.
