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Nota di contenuto	A short review of standard and inflationary cosmology -- The basic string cosmology equations -- Conformal invariance and string effective actions -- Duality symmetries and cosmological solutions -- Inflationary kinematics -- The string phase -- The cosmic background of relic gravitational waves -- Scalar perturbations and the anistropy of the CMB radiation -- Dilaton phenomenology -- Elements of brane cosmology.
Sommario/riassunto	The standard cosmological picture of our Universe emerging from a 'big bang' leaves open many fundamental questions which string theory, a unified theory of all forces of nature, should be able to answer. This 2007 text was the first dedicated to string cosmology, and contains a pedagogical introduction to the basic notions of the subject. It describes the possible scenarios suggested by string theory for the primordial evolution of our Universe. It discusses the main

phenomenological consequences of these scenarios, stresses their differences from each other, and compares them to the more conventional models of inflation. The book summarises over 15 years of research in this field and introduces advances. It is self-contained, so it can be read by astrophysicists with no knowledge of string theory, and high-energy physicists with little understanding of cosmology. Detailed and explicit derivations of all the results presented provide a deeper appreciation of the subject.