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Disciplina	520 500.5
Soggetti	Space sciences Geophysics Space Sciences (including Extraterrestrial Physics, Space Exploration and Astronautics) Geophysics/Geodesy
Lingua di pubblicazione	Inglese
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Nota di contenuto	The CMB spectrum at centimeter wavelengths -- Recent measurements of the Sunyaev-Zel'dovich effect -- Clusters and the cosmic microwave background -- Theoretical aspects of the CMB spectrum -- Medium scale CBR anisotropy measurements: UCSB South Pole HEMT (1990–91) and MAX 3 (1991) -- Results from the cosmic background explorer -- The MSAM/TopHat program for measuring the CMBR anisotropy -- The current status of the tenerife experiments and prospects for the future. -- Making maps with the tenerife data -- Anisotropy of the relic radiation in relict-1 experiment and parameters of grand unification -- RELIKT1 and COBS-DMR results: A comparison -- Comments on the COBE 1 DMR quadrupole estimation -- Pip analysis of the Tenerife and ULISSE data -- Telling adiabatic perturbations from gravitational waves and the CMB polarization -- Imprints of galaxy clustering evolution on the CMB -- Analysis of texture on cosmic background maps -- Sakharov modulation of the spectrum of initial perturbations and its manifestation in the anisotropy of cosmic microwave background and

galaxy correlation function -- Constraints on models from POTENT and CMB anisotropies -- Reionization and the cosmic microwave background -- Possible reionization and first structures in CDM -- CMB anisotropies in the reionized universe -- Microwave background anisotropies: Future plans -- New constraints on reionization from the Compton  $y$ -parameter -- Future projects on the Cosmic Microwave Background -- The COBRAS mission.

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#### Sommario/riassunto

These review articles by outstanding specialists cover the present status of the observations of the spectrum and of the anisotropies of the cosmic microwave background radiation. Experimental developments, data analysis and related theoretical aspects are also treated. The idea is to review and discuss at a level accessible to non-specialised astronomers and graduate students the most recent developments in this field as well as the future perspectives for astrophysics and cosmology in particular.

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