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Nota di contenuto	The galactic rotation curve at $R > R_0$ from observations of the 21 cm line of atomic hydrogen -- Groping for truth from the galaxy's outermost satellites -- Carbon stars at $2R_0$ and the rotation of the milky way -- The velocity field of the outer galaxy -- The importance of stellar distances in determining the rotation curve of the outer galaxy -- Metal weak stars and the galactic circular velocity -- A wavy rotation curve and consequences thereof -- Milky Way rotation and the distance to the Galactic center from Cepheid variables -- The distance to the galactic center from observations of the outer galaxy -- Rotation and the outer galaxy: Comments on topics raised by the work of Frank Kerr -- Mapping the galaxy at 21 CM wavelength: The Boston University-Arecibo galactic HI survey -- The shape of the outer-Galaxy HI layer -- Star clusters and the thickness of the galactic disk as probes of the outer GALAXY -- The milky way in high resolution U photometry and inferences on its structure -- First results of a milky way

continuum survey at 45 MHz -- Galaxian structure and x-ray astronomy -- The cloudy interstellar medium: Aggregation of giant molecular clouds in spiral structures -- CO emission from the southern galactic plane and galactic structure -- Substructure in spiral arms -- Resonance excitation: A possible interpretation of the 3-KPC arm -- HI and the diffuse interstellar medium -- The disk-halo connection and the nature of the interstellar medium -- Giant HI clouds in the Galaxy -- The Southern extension of the Taurus molecular clouds -- Kinematics of 21 cm self absorption towards the taurus molecular complex -- The variable hii regions in cepheus a -- The nearby molecular clouds: A complete survey -- Extinction and metal abundances in the outer galaxy -- Iras results on outer galaxy star formation towards galactic longitude  $l=125^\circ$  -- The outer galaxy as a star formation laboratory -- Points to ponder about the molecular outer galaxy -- Star formation in the outer galaxy -- The high-velocity clouds: Why were they ever a mystery? -- Structure, rotation and mass of the magellanic clouds -- A cO survey of the large magellanic cloud -- Some surprises in the dynamics of M33 and M31 -- Molecular arms in the outer disk of M51: Structure and origins -- Searching for galaxies in the zone of avoidance -- Some reminiscences of frank kerr and the work on the milky way and the magellanic clouds.

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### Sommario/riassunto

The book summarizes research into the fundamental properties of the outer Milky Way (including its mass, scale and rotation properties) and covers topics such as spiral structure, the interstellar medium, star formation, satellites of the Milky Way and the outer parts of some nearby galaxies. It contains new work on the outer rotation curve of the Milky Way, first results of a new low frequency galactic disk survey, new results on the scale of the Galaxy (the distance of the Sun from the center and the relation of the disk of the Milky Way to the halo). This is the first volume specifically dedicated to outer galaxy research. Professional astronomers and astrophysicists as well as graduate students will welcome this book as a guide in understanding the outer parts of the Milky Way and also other galaxies.

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