THE MILKY WAY GALAXY

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IAU Symposium 106, held at the Kapteyn Institute in Groningen, presents an overview of all major aspects of galactic astronomy – the first such symposium in five years, in a highly dynamic field of research. The vast subject is covered in 20 authoritative review papers and 22 invited papers, each with discussion, plus 81 shorter contributions.

The book opens with 4 reviews by historians of science, outlining the history of galactic research. Part 2 deals with (i) galactic rotation, (ii) the large-scale distributions of matter, of both old and young stellar populations, and of the atomic, molecular and high-energy components of the interstellar medium, (iii) small-scale structure in the gas, (iv) the galactic nucleus, (v) the high-velocity clouds. Part 3 discussed the dynamics of the local group of Galaxies and of the Milky Way-magellanic clouds system, the dynamical and chemical evolution of the Galaxy and of its disk and halo components and the formation of the Galaxy.

The controversial subject of spiral structure and star formation is analyzed in several extensive reviews and lively discussion, featuring both observational and theoretical developments. Results of extragalactic research are blended with studies of our Galaxy throughout the book, and there is a separate comparison between Andromeda and Milky Way Galaxies.

The Symposium featured the first maps produced by IRAS, and results from most major telescopes in a variety of wavebands. Many review papers present material not published elsewhere. The book closes with a lecture on life in the Galaxy?, and with an imaginative symposium summary.

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