
Comets in the Post-Halley Era

edited by

R. L. NEWBURN, Jr.

Jet Propulsion Laboratory, Pasadena, California, U.S.A.

M. NEUGEBAUER

Jet Propulsion Laboratory, Pasadena, California, U.S.A.

and

J. RAHE

NASA HQ, Washington DC, U.S.A.

Comets are always very impressive phenomena. Their appearances at regular, but mostly irregular, times excite people who see them. Astronomers have an obvious advantage of being able to see more of comets, and study them. Their enthusiasm is reflected in the 50 papers in this book, written by more than 90 experts.

The reviews in this book clearly describe a landmark in the history of cometary studies. Knowledge gathered from up to and including Comet Halley are presented in two volumes. The first volume is about general aspects of observing and studying comets, from where they originate and how their evolution develops. The second volume goes into the details of what a comet is: the nucleus, the coma, cometary dust, plasmas and magnetic fields. The book ends with a reflection of Fred Whipple about Comets in the Post-Halley Era.

Audience

The book discusses all aspects of comets and is therefore suitable for use in graduate level courses. All astronomers and geophysicists interested in comets will find very useful and well-presented information in this book.

Cover photo:

This image of nucleus of Comet Halley is composed of six images taken by the Halley Multicolour Camera during the ESA Giotto spacecraft's encounter with the comet on March 13, 1986. Images 3475, 3480, 3491, 3496, and 3500 replace parts of image 3457. The images were taken at 9,510, 8,150, 5,160, 3,800, 2,730, and 14,420 km from the nucleus, respectively. The resolution improves from 325 to 60 m per pixel while the brightest part of the image is approached. The Sun is 29° above the horizontal on the left and 12° below the image plane. Images are radiometrically and geometrically corrected, noise is removed, and the point spread function is deconvolved. The visibility of the dark side of the nucleus is enhanced by a masking technique. Photo © 1986 Max-Planck-Institut für Aeronomie. Courtesy H.U. Keller.