fifty pages of halftone reproductions of photographs made from plates in the Mount Wilson and Palomar collection. A total of 176 galaxies are illustrated, of which 113 were photographed with the 200-inch telescope at Mount Palomar, 54 with the 100-inch telescope at Mount Wilson, and the remainder with the Observatories' 60-inch, 48-inch, and 10-inch instruments. All relevant technical information is included in each case.

The Hubble Atlas of Galaxies (cloth, $10) can be ordered directly from the publisher, the Carnegie Institution, 1530 P St., N.W., Washington 5, D. C.

Meteorology

The American Meteorological Society is currently engaged in reorganizing its publishing program in accordance with recommendations made by the AMS Council. Beginning this year, a new quarterly, the *Journal of Applied Meteorology,* is to be published by the Society. In addition, two existing publications have been expanded in scope and have been given new names. The former *Journal of Meteorology* will henceforth appear bimonthly under the title, *Journal of the Atmospheric Sciences,* while a new version of the Society's *Meteorological Abstracts and Bibliography* will provide increased coverage in geophysics and the space sciences and will be called the *Meteorological and Geoastrophysical Abstracts.* The Society's official publication, the *Bulletin of the American Meteorological Society,* will keep its name but its contents will in the future consist of editorials, survey articles, and professional and membership news and announcements. The Society's headquarters organization in Boston has been augmented by a full-time editorial staff, including a technical editor and a publications manager.

Robert D. Elliot of North American Weather Consultants and Donald P. McIntyre of the Canadian Meteorological Service have been named coeditors of the new *Journal of Applied Meteorology,* which will publish papers concerned with such topics as weather prediction, climatology, atmospheric pollution, weather modification, hydro-meteorology, bioclimatology, and observing systems.

Edited by Robert Jastrow of the Institute for Space Studies and Norman A. Phillips of the Massachusetts Institute of Technology, the *Journal of the Atmospheric Sciences* will be concerned with the deductive and quantitative aspects of the atmospheres of the earth and other planets, including atmospheric structure, dynamics, radiation, cloud physics, electrical properties, extension to the interplanetary plasma, aurorae, airglow, ionospheric absorption, atmospheric effects of magnetically trapped particles, and the origin and evolution of planetary atmospheres.

The AMS *Bulletin,* intended strictly as a news medium, will be prepared at the Society's headquarters. In the case of the expanded *Meteorological and Geoastrophysical Abstracts,* Malcolm Rigby will continue in his capacity of editor and technical super-

visor with offices in Washington, D. C. The publication will abstract the world's literature in meteorology, climatology, hydrology, oceanography, upper atmospheric and ionospheric physics, radio astronomy, geomagnetism, planetary atmospheres, and solar physics.

Functions

Graphic representations of a number of functions which frequently occur in scientific and technical calculations are contained in a 118-page paperbound volume entitled *Graphiques des Fonctions usuelles pour Calculs numeriques rapides*. Compiled by Camille Meynart and published by Editions Eyrolles of Paris, it costs 19.20 NF. Beginning with various powers and roots and proceeding through trigonometric and exponential functions, its contents include elliptic integrals, Bessel functions, Legendre polynomials, Fresnel integrals, Hermite and Tschebysheff polynomials, and a number of others. The text gives short descriptions and symbolical formulations of the various functions.

In general, a group of related functions is displayed on each of the 41 full-page graphs. The drawings are generally clear, although there are a few instances of blurred notations.

Nonmetallic Crystals

Forty-eight papers presented last summer at the 1961 International Symposium on the Chemical Physics of Nonmetallic Crystals have been included in a special supplement to the January issue of the *Journal of Applied Physics*. The collection will also be published commercially in book form.

Sponsored by the Divisions of Chemical Physics and Solid-State Physics of the American Physical Society, together with the Division of Physical Chemistry of the American Chemical Society, the symposium was held August 28–31 at Northwestern University. The purpose of the meeting was to survey the current knowledge of binding in nonmetallic crystals and of the equilibrium properties of point defects (both chemical and structural) in such crystals. The published papers are grouped under the following main subject categories: (1) quantum theory of nonmetallic crystals, (2) characterization of point defects in crystals, (3) equilibrium properties of dilute solid solutions, and (4) kinetic methods characterizing point defects.

The 250-page clothbound edition of *Chemical Physics of Nonmetallic Crystals* is scheduled to appear next month. It is priced at $10 and can be ordered directly from the publisher, W. A. Benjamin, Inc., 2465 Broadway, New York 25, N. Y.

Information Services

A directory describing 427 organizations that provide continuing information services in various fields of the physical and biological sciences and technology