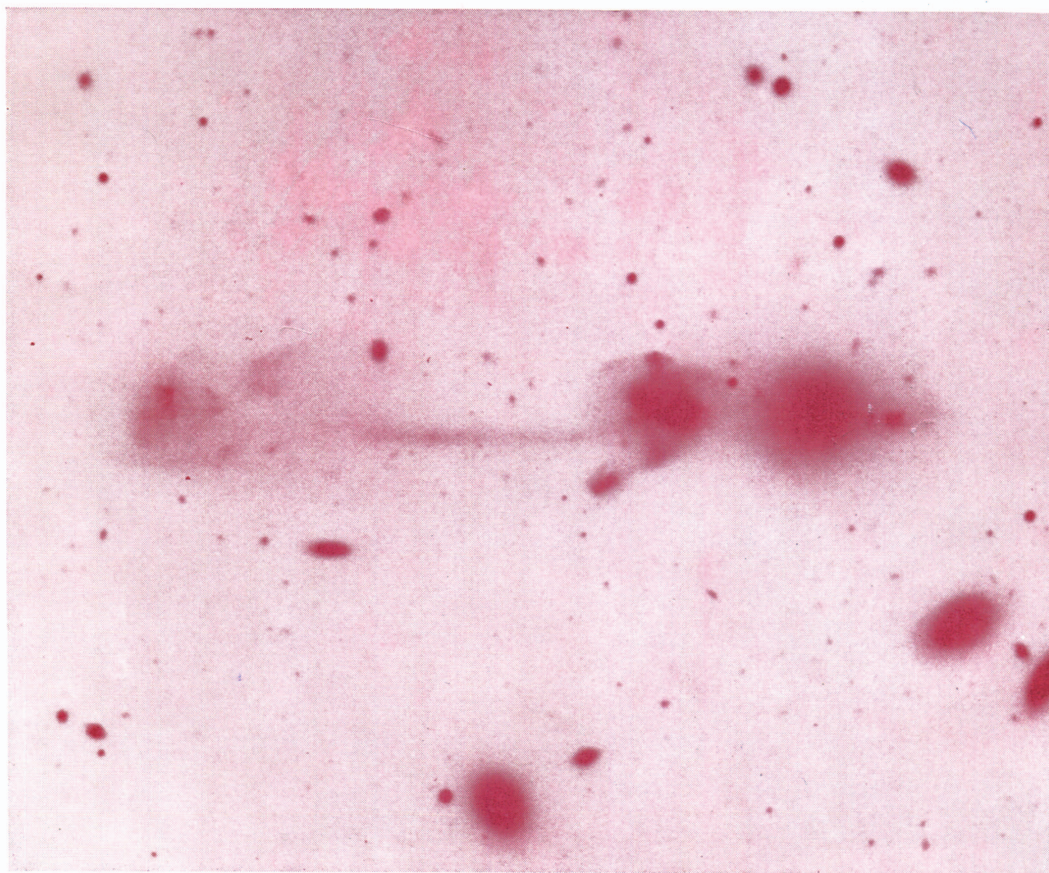


INTERNATIONAL ASTRONOMICAL UNION

SYMPOSIUM No. 44

EXTERNAL GALAXIES AND QUASI-STELLAR OBJECTS

Edited by D. E. EVANS



INTERNATIONAL ASTRONOMICAL UNION

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With the development of radio astronomy certain sources of radiation in the radio region have been identified with visual objects which are either indistinguishable from points, and thus look like stars, or show only a very slight extension. Measures of the redshifts of these objects have yielded results corresponding to velocities of up to ninety percent that of light which indicates that these systems are extremely remote if the redshifts are interpretable as due to general expansion of the universe. At the same time optical observations show that many of these sources are variable in brightness within times, in some cases as short as a few days. The variations may be periodic with periods of the order of a few years, but this is debatable. The shortness of time within which variations occur may indicate extremely small dimensions for these objects and hence a tremendously concentrated source of energy. Some theoretical work has been directed to explaining how such highly concentrated energy sources could be produced while other theories take an entirely different approach, and, for example, explain short term variations as due to gravitational focusing of light from a quasar by a foreground galaxy.

The field covered by the eighty-one papers and survey lectures extends all the way from observational studies both in the optical and radio regions of the spectrum to the elaboration of theories of the origin of concentrated sources and their reconciliation with cosmological ideas. It includes classification of galaxies, especially those known as compact, statistical studies of the distribution of radio sources and relativistic cosmology, presented by the world's most distinguished astronomers and physicists working in this field at the present time.

D. REIDEL PUBLISHING COMPANY
DORDRECHT-HOLLAND

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INTERNATIONAL ASTRONOMICAL UNION
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EXTERNAL GALAXIES AND QUASI-STELLAR OBJECTS

EDITED BY

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