

STATISTICS OF CLUSTERS OF GALAXIES

DISTRIBUTION OF CENTERS, ANGULAR DIMENSIONS, STRUCTURE, LUMINOSITY FUNCTION OF MEMBER GALAXIES

F. ZWICKY

MOUNT WILSON AND PALOMAR OBSERVATORIES
CARNEGIE INSTITUTION OF WASHINGTON
CALIFORNIA INSTITUTE OF TECHNOLOGY

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1. Preamble

We shall in this study be concerned with the large scale distribution of galaxies and of clusters of galaxies. Particular emphasis will be laid on the morphology of clusters. Physical properties of galaxies and of clusters of galaxies will be discussed qualitatively, but only insofar as knowledge of these properties is necessary to make the objects in question clearly identifiable. In addition to this, a few preliminary suggestions will be made concerning the importance of various physical properties of large scale aggregations of matter for the construction of reasonable cosmological theories. Many of the theories in the past have indeed been built on foundations which are unconvincing to the author and the establishment of reliable pegs of factual knowledge, rather than mathematical theses on the origin and on the evolution of the universe and of its component parts, would appear to constitute the most urgent task in astronomy today.