

ACTIVE GALACTIC NUCLEI IN POLARIZED LIGHT

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The importance of applying polarimetry methods to the study of geometry, kinematics, and physical processes in active galactic nuclei (AGN) in polarized light is discussed. Since the central regions of AGNs are geometrically unresolved, polarimetry is an important addition to direct images, spectra and the time series of the variability. The polarimetric methods for the study of AGNs in the broad lines of the hydrogen series are considered in detail. Polarization contains information about the interaction of electromagnetic waves with the environment, so the study of sources in polarized light provides additional information about the physical processes in the central regions of the AGNs. An overview of the mechanisms of polarization formation, their connection with different structures and scales are provided. The technique of polarimetric observations, the difficulties of taking into account the depolarization introduced by different media on the way between the source and the observer, as well as examples of observations of polarization in different types of AGNs are described.