[¥GC-39] Detection of a Large Amount of Diffuse Extraplanar Dust in NGC 891

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Significant discrepancies have been found between the dust masses of edge-on spiral galaxies derived from various tracers (optical/near-infrared, far-infrared/sub-millimeter observations, and the variation of dust attenuation with viewing angle). Here we report the first detection of a vertically extended far-ultraviolet (FUV) and near-UV (NUV) emission in an edge-on spiral galaxy NGC 891. The vertically extended emission is interpreted as the dust-scattered light due to a extraplanar dust layer in NGC 891 that contains about the same mass as the standard thin dust disk. This new dust component completely encloses the stellar disk and bulge, and solves the puzzle of dust mass.

[¥GC-40] The Emission-line Properties of Young Radio Galaxies

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To investigate the properties of the narrow-line regions and the accretion disks of YRGs, we study a sample of 28 young radio galaxies (YRGs) observed with the Kast Double Spectrograph at the Shane 3-m telescope and with the DBSP (Double Spectrograph for the Palomar 200-inch Telescope) at Palomar observatory. In addition we collect an addition sample of 15 YRGs with the optical spectra from the SDSS archive. We present the measured narrow-line region properties based on the various emission line ratios, i.e., [O III]/H β , [N II]/H α , [S II] 6716/6731, [O I]/[O III], [O II]/[O III] and [Ar III]/[O III], which are useful to constrain the gas properties and the states of the accretion disk. We will discuss the characteristics of YRG.