

R71a **中心HII領域を持つ早期型円盤銀河のCO観測：重力的に安定なガス円盤**
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The distinct nature of circumnuclear star formation (SF) as opposed to global SF in spiral galaxies has been well established. If we separate early-type spiral galaxies and late-types, two interesting trends emerge: (1) the frequency of HII nucleus (circumnuclear SF) occurrence is lower in early-type spiral galaxies than in late-types, however, (2) if an HII nucleus is found, the H α luminosity is much higher in early-type spiral galaxies than in late-types. In order to understand these trends, we made initial assumptions that (a) critical gas density triggering SF is higher in early-type spiral galaxies than in their late-type counterparts, and that (b) the gravitational stability is the cause of the higher critical density, because deep central potentials in early-type spiral galaxies stabilize the gas disks. We, therefore, expected to find larger amounts of gas in circumnuclear regions of early-type spiral galaxies with HII nuclei than in their late-type counterparts, and have started a CO interferometer survey of early-type spiral galaxies using the Nobeyama Millimeter Array. However, the results from the first year of the survey show opposite trends: gas-to-dynamical mass ratios are low in early-type spiral galaxies. The sample so far is small, but the results indicate that the circumnuclear disks of our early-type spiral galaxies are gravitationally stable although they have HII nuclei (active SF).