

[ㄹGC-15] Correlation between mergers and AGN activity : a case study with MARK 478

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Studies suggest that activities in luminous AGNs, residing mostly in early-type galaxies, are triggered by merging. However, the observational evidence for the connection between mergers and AGN activity is not clear yet because tracer of the past merging activities such as tidal tail, shell are often too faint. To see if we can reveal the merging features with a small telescope, we observed an AGN, MARK 478, at $z=0.077$ with long exposure time (7550 seconds) in V filter at Maidanak observatory. Our 2-D fitting analysis shows that the host galaxy of MARK 478 has the bulge to the total luminosity ratio of 0.3 . And the residual image, after subtracting point spread function (PSF), bulge and disk components, shows that the host galaxy has an arm-like feature that could be a spiral arm or a feature from minor merging. We also show that the structural parameters obtained from our 2-D fitting match well with those derived from HST image. The promising result suggests that studies of low redshift AGN host galaxies are possible with data from a small telescope. In order to allow a statistical analysis, we hope to expand our sample size in future.

[ㄹGC-16] The monitoring inner jet of 3C84 with GMVA

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The 3C84 (NGC 1275), one of Seyfert 2 galaxy, is an interesting object with its peculiar sub-mas structure. We found that the inner jet ($r < 2.5\text{mas}$) of 3C84 seemed to even changed its position angle and flux over one and a half years based on the result of global 86GHz VLBI survey (Lee et al. 2008). In order to confirm the 'precession' of jet, we observed the object in 4 epochs May07, Oct.07, May08 and Oct.08 with the GMVA (Global mm-VLBI Array) at 3mm (86.25GHz) and the each observation time is about 14 hours. Here we present observation and preliminary result of Oct.07 and May08 epochs.