

**[구GC-11] Multifrequency monitoring of a flaring gamma-ray blazar
3C454.3 at 22 and 43GHz**

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We report the results of the monitoring of a flaring gamma-ray blazar, 3C454.3 in total flux density at 22 and 43GHz and in polarization at 22GHz with KVN Ulsan 21-m radio telescope every 3-4 days from 19 November 2010 to 31 January 2011. After an extraordinary 5-day gamma-ray outburst in November 2010, the radio total flux density at 22/43GHz and the linear polarization at 22GHz has been decreased with a variation of a short time scale. In this paper, we also discuss a spectral change of 3C454.3 at 22 and 43GHz after the extraordinary gamma-ray outburst.

[구GC-12] Correlation between Galaxy Mergers and AGN Activity

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It is believed that active galactic nuclei (AGN) is powered by super massive black hole (SMBH). But how the AGN activity is triggered is still unclear. Some studies suggest that gas inflow by merging can trigger AGN activity. However, it is difficult to find observational evidence because merging features such as tidal tail, shell are faint. Using images taken at Maidanak 1.5m telescope and CFHT, we investigated whether merging features are seen commonly on AGN host galaxies. We found that 3 to 4 of the currently studied 6 AGN show features disturbed by gravitational interaction. This result implies that AGN activity may correlates with merging. We plan to expand the sample size in the near future.