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Understanding how ram pressure stripping (RPS) affects the star formation activity of cluster galaxies is one of the important issues in astrophysics. To examine whether we can identify any discernible trend in the star formation activity of galaxies undergoing ram pressure stripping, we study the star formation properties of galaxies in the Virgo cluster for which high-resolution HI images are available. We first classify galaxies in the Extended Virgo Cluster Catalog into different stages of RPS based on their HI morphology, HI deficiency, and location in phase space. We then examine various star formation activity indicators of these galaxies, which include starburstiness, g - r color, and WISE [3.4]-[12] color. No noticeable enhancement in star formation was identified for galaxies undergoing early or active stripping. Our results suggest that star formation activity at best seems to be enhanced locally in such galaxies, making it challenging to detect with integrated photometry. With the combination of HI deficiencies and locations in phase space, we were instead able to capture the overall quenching of star formation activity with increasing degree of ram pressure stripping, which agree with previous studies.

[포 GC-12] Identification Of Jet Components Of CTA 102 On Milliarcsecond Scales Using The iMOGABA Program

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CTA 102, one of gamma-ray bright active galactic nuclei (AGN) has been observed with Korean very long baseline interferometry (VLBI) network (KVN) during the period of 2012 December-2018 May as part of interferometric Monitoring Of Gamma-ray Bright AGN (iMOGABA). Multi-frequency VLBI observations enable us to compare the milliarcsecond(mas)-scale iMOGABA images of relativistic jets with those from the Monitoring Of Jets in AGN with Very long baseline array (VLBA) Experiments (MOJAVE) and the VLBA-Boston University(BU)-BLAZAR programs which use VLBA with its angular resolutions of 0.2-1.3 mas. In spite of the relative larger beam sizes of KVN (1-10 mas), we are able to identify jet components of CTA 102 using the KVN multi-frequency VLBI observations with those resolved with VLBA. Considering an instrumental beam blending effect on the jet component identification, we were able to obtain a blending shift of the core position based on a convolution analysis using the VLBA data. When we apply the core position shift to the KVN images of CTA 102, we find that the identified jet components of CTA 102 from the KVN observations are well matched with those from the VLBA observations. Based on the results of the analysis, we may be able to study the jet kinematics and its correlation with gamma-ray flare activity.

[포 GC-13] Metallicity Gradients of CALIFA Shell Galaxies

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Shells in early-type galaxies are low surface brightness tidal debris, which are wide concentric arcs of overdense stellar regions with large opening angles. The most widely accepted mechanism today for shell formation is the merger scenario, but the dominant merger type producing shells is not clearly understood yet: major/minor and wet/dry mergers. Since shells are regarded as smoking-gun evidence of merging events, detailed understanding of shell galaxies is very useful to constrain the formation process of early-type galaxies. In this study, we investigate the metallicity gradients of eight early-type shell galaxies using CALIFA IFU data to better understand the nature and origins of galaxy shells. We estimate simple stellar population properties out to three effective radius from the measurement of Lick/IDS absorption line indices. We compare the metallicity gradients of shell galaxies with those of normal early-type galaxies in the same mass range. In this presentation, we discuss how much the gradients of shell galaxies are different from those of normal early-type galaxies and what the existence of galaxy shells implies about galaxy formation.

[포 GC-14] The relationship of dense molecular gas and HI/H_2 gas in a MALATANG galaxy, NGC 6946

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