

NAOJ ALMA Scientific Research Grant 2021

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■ Title

Unveiling the Coronal Magnetic Activity in the Vicinity of Active Supermassive Black Holes with ALMA

■ Summary

Coronal magnetic activity in active galactic nuclei (AGNs) have never been measured despite its importance in the generation of relativistic jets and hot coronae. Recently ALMA has successfully detected coronal radio synchrotron emission from nearby AGNs. However, the number of confirmed objects is still few. In this research program, we will perform a survey of mm-band continuum emission of nearby AGNs with ALMA. We will further investigate the underlying physics controlling the AGN coronal magnetic activity by linking accretion disk theory and multiwavelength data including X-ray and radio.