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■ Title

Study of dust-obscured activities in galaxies and their evolution

■ Summary

In order to understand the dust-obscured activities in galaxies and their evolutions, we will conduct extensive studies of galaxies near and far using ALMA data. Specifically, we will mainly focus on the following two topics. (1) Based on the ALMA data of deep fields such as GOODS-S and lensing clusters, physical properties of faint submillimeter galaxies, which are expected to be a major contributor for the cosmic infrared background, will be systematically studied. It also aims to obtain new observational constraints on the luminosity functions of CO and C+ emitting galaxies. (2) We will study the structure, dynamics, and physical/chemical properties of molecular medium in the central regions of active galaxies in a few 10 pc scale, in order to obtain new insights on the interaction between the active nuclei and ISM in host galaxies.