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■Title

Resolving galaxy formation and early environmental effects with ALMA high resolution observations

■Summary

Galaxy formation is peaked at around 10 Billion years ago. The early environmental effects may play initial roles at this epoch, which would eventually lead to the strong environmental dependence seen in the present-day galaxies, although the physical mechanisms behind it have not been well identified yet. Up until recently, distant galaxies are seen as a single entity due to their small size and faintness. However, the high resolution and high sensitivity observations now possible with ALMA can spatially resolve those forming galaxies and directly see and identify the internal/external physical processes in action. This program aims to conduct high resolution ALMA observations on our unique sample of star forming galaxies at around the peak epoch of galaxy formation in order to understand the physical mechanisms of galaxy formation and early environmental effects.