

[CII]-properties and Star Formation-driven Outflows in high-z Galaxies (Michele Ginolfi)

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ALPINE is an ALMA large program designed to study gas and dust properties of a representative sample of more than one hundred main sequence star-forming galaxies with spectroscopic redshifts between $4 < z < 6$, with $\text{SFR} > \sim 10 M_{\text{Sun}}/\text{yr}$ and stellar mass $\sim 9 < \log(M_{\text{star}}) < \sim 11$.

I will present some results of the survey, focusing on:

- properties of the observed interstellar-medium (including morphology and kinematics) and the connection of [CII] with other physical quantities, e.g., the well known [CII]-SFR relation;
- major results obtained from the stacking analysis of [CII] spectra / data-cubes, providing new key insights on (i) star formation-driven outflows and (ii) gas recycling in the circumgalactic medium, precious for our understanding of the baryon cycling physics that drive the evolution of high-z galaxies.

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Track Classification: Gas and dust in galaxies