Contribution ID: **6** Type: **not specified**

ASPECS: Unveiling the driver of cosmic star formation history

Monday, 14 October 2019 10:00 (25 minutes)

Invited Talk

Abstract:
NGC 253 is the one of the brightest molecular emitters outside the Galaxy and therefore the more suited candidate for deep molecular surveys.
In this presentation I will summarize the current status of the ALCHEMI project which an ALMA large program consisting of an unbiased line survey from ALMA bands 3, 4, 6, and 7 (85-370 GHz), whose scope was extended this Cycle to also cover Band 5.
In particular I will focus on the first results on the low resolution data from the 7m compact array which already shows an unprecedented molecular richness as well as first
look into the chemistry revealed at the highest resolution.
Despite of being observed at every wavelengths for decades, ALMA keeps unveiling new details on its central molecular zone.
Additionally to ALCHEMI, I will present results from deep observations spin-off ALMA projects which were going in parallel to this survey which targetted isotopic ratio based on the double isotopologue 13C18O, deuteration, and vibrational emission in NGC 253.

Presenter: Dr DECARLI, Roberto

Session Classification: Cosmology