Contribution ID: **561** Type: **Talk in a parallel session**

Ivestigate AGN feeding & feedback in nearby universe

As the last student of Prof. Malheiro I would like to talk about him and present my work which he was involved in his last year of his life:

The study of Active Galactic Nuclei (AGN) has garnered significant attention due to their structures and dynamic behaviors. Understanding AGN feedback mechanisms and their impact on host galaxies is of paramount importance. In this context, the TWIST sample, consisting exclusively of AGN galaxies in the nearby universe. Our primary aim is to investigate cold molecular outflows and AGN feedback through CO (2-1) observations using the Atacama Large Millimeter/submillimeter Array (ALMA).

It should be noted that several objects within our TWIST sample have already been the focus of extensive research in past years. In the following section, we will summarize these prior studies, highlighting their key findings and results to provide a comprehensive understanding of the existing literature.

For this preliminary study, we employ the three-dimensional kinematic modeling tool, 3D-Barolo. We utilize its default mode, which predicts initial values for the model parameters automatically. While these initial guesses may not be the most accurate, they offer a broad overview of the kinematic features, setting the stage for more refined models. The data for this study are in the form of cleaned data cubes with a spectral resolution of 30km/s.

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Session Classification: Spectral and temporal properties of accretion flows and jets around compact objects and the theoretical models

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