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NAME: Arturo Manchado

AFFILIATION: IAC

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TITLE: Identification of post-AGBs from Gaia DR3 distances and morphology.

AUTHORS: Arturo Manchado

AFFILIATIONS: IAC

ABSTRACT:

Gaia DR3 parallaxes of a sample of post-AGB candidates, has allow us to unequivocally establish their evolutionary stage. Making use of the available photometry, interstellar extinction, and parallax-derived distance, their spectral Energy Distributions (SED) was fitted. From this, luminosity and effective temperature was worked out, placing then in the Hertzsprung-Russell (HR) diagram. This allows direct comparison with updated post-AGB evolutionary tracks, and estimation of their masses and evolutionary ages. As a result of that it was found that most of the sample, does not reach a high enough luminosity and they are classified as post-RGB. From a sample of 146 candidates, 68 are post-RGB, 45 post-AGB, 29 YSO, and 4 supergiants.

In addition there were HST images for some of them, finding that non post-AGB show a bipolar structure, but few post-RGB.