Looking for blazars in the Galactic plane

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Abstract / There is a lack of blazar detections in the Galactic plane area, even in the most recent blazar catalogues, mainly due to incompleteness resulting from interstellar dust and stellar contamination of our Galaxy. The VISTA variables in the Vía Láctea survey (VVV) aims to map variable sources towards the galactic plane in the near-infrared. There are three catalogued and one candidate blazars in the VVV area, that are also detected by Fermi-LAT in the gamma ray band, and by the Wide-field Infrared Survey Explorer (WISE) at mid-infrared wavelengths. We study the physical properties of these blazars, using color-color and color-magnitud diagrams in order to use them as a reference that would allow us to unidentified gamma-ray sources hidden behind the Galactic plane in the future.

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