

Abstract Submitted
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Detection of H emitters within the IPHAS field of view MATTEO

FRATTA, Texas Tech University — I present a list of likely H α emitters among the sources in the INT Photometric H α Survey of the Northern Galactic Plane (IPHAS) field of view. Out of 7373236 objects, 17272 have been highlighted as emitters, in the H α narrow band. For each of these objects, I calculated a significance parameter which provides a quantitative degree of confidence that the given source is a true emitter, with reference to an associated group of similar objects. In this way, future users can choose between applying a more conservative cut rather than opting for completeness, or vice versa. In this study, I used a cross-matched catalog between Gaia DR2 and IPHAS DR2; this provided me with, besides the r, i and H α IPHAS bands, also the Gaia Bp, Rp and M $_G$ colors, along with the distances between the sources and us. I could then build the Bp-Rp VS M $_G$ Color-Magnitude Diagram, which allowed me to identify which population each source most likely belongs to.

Matteo Fratta
Texas Tech University

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