

## Towards an ALHAMBRA quasar catalogue

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### Abstract

We present the steps towards the identification of quasars in the ALHAMBRA fields using only the ALHAMBRA photospectra. The ALHAMBRA survey (Moles et al. 2005, 2008) uses a set of 20 contiguous optical filters and three infrared filters (J, H, and Ks). The entire coverage of the optical range and the width of the filters ( $\sim 300\text{\AA}$ ) allowed us to detect emission line quasars and to compute their accurate redshifts. Starting from  $\sim 430\,000$  sources we ended up with a catalogue of 524 quasar candidates with  $z > 0.8$  in an area of  $2.79\text{ deg}^2$ . To determine the level of galaxy contamination in our sample and the accuracy of the photo- $z$  we performed a crossmatch between spectroscopically identified objects in another surveys and the ALHAMBRA sources, detecting 1058 galaxies and 205 quasars. After applying our algorithm none of the galaxies was classified as quasar, the accuracy of the quasar photo- $z$  was  $\sigma_{\text{NMAD}} = 0.010$ , and the level of quasars with photo- $z$  significantly different to their spec- $z$  (outliers) was 3.12%.