

A uniformly selected, all-sky, optical AGN catalogue

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Abstract. We have constructed an all-sky AGN catalogue, based on optical spectroscopy, from the parent sample of galaxies in the 2MASS Redshift Survey (2MRS), a near-complete census of the nearby ($z < 0.09$) universe. In addition to identifying the 8491 AGNs and providing line measurements for all the emission line galaxies so that the users can customise the selection criteria, we assess the affects of spectral quality on AGN identification. We find that spectral signal-to-noise and resolution affect not only the overall AGN detection rates but also the broad-line to narrow-line AGN ratios. These systematic effects must be taken into account when using any optical AGN catalogue and in comparing the results from different catalogues. We develop a way to account for the inhomogeneities by parametrizing the AGN detection rates as a function of the spectral signal-to-noise, making our catalogue suitable for statistical analyses. We will also present cross-correlation studies between this catalogue and all-sky catalogs at other wavelengths to better understand the different physical processes which lead to the emission at different wavelengths.

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