

# K-CORRECTION BIASES AND THE QUASAR LUMINOSITY FUNCTION

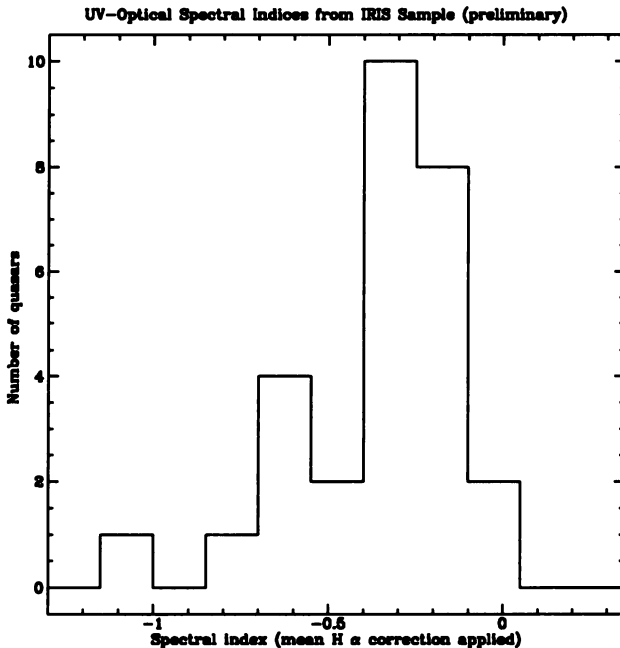
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## Abstract.

By characterising the range of quasar UV-optical spectral indices and any correlation with it e.g. luminosity or line parameters, we hope to remove one more bias from the quasar luminosity function (QLF).

Although the rest-frame quasar UV-optical spectrum is well-fit by a power law ( $f(\nu) \propto \nu^\alpha$ ) with a mean spectral index  $\alpha_{UV0} \sim 0.3$  (Francis et al. 1993 ApJ 407 519), this is not a sufficient description for the purposes of calculating the QLF. The QLF is 'blurred' by the *range* in spectral index (Warren et al. 1994 ApJ in press) and a flux-limited sample reaches deeper into the blue QLF, mimicking faster 'evolution'.



To combine with our existing  $B_J$  magnitudes, we have obtained JHK' photometry using IRIS on the AAT for over 100 quasars, selected from the LBQS to have a wide range in other properties. Preliminary  $\alpha_{UV0}$  for the first 29 objects in the sample are shown in Figure 1; note the range  $-1 < \alpha_{UV0} < 0$ .