

Figure 8-2

In the top two graphs, we compare the variations in QSO light curves against the light curves derived for the comparison stars. The upper-left graph shows the weighted root-mean-square (RMS) of the light curves points for 83 QSOs and 552 comparison stars. The points are stars, the open squares are optically selected QSOs, and the open triangles are radio selected QSOs. The values are plotted against the median of the calculated error for each QSO or star. The dotted line indicates a RMS value twice the median calculated error. One BALQSO (UM 253, 0029+0017) with somewhat greater variability is indicated with a square and an arrow.

The upper-right graph shows the maximum deviation, *i.e.* the difference between the largest and smallest magnitude in the light curve for each star or QSO, plotted versus median error.

The lower graphs show the maximum deviation normalized by the median error versus emission line redshift and the log of the luminosity in $\text{ergs s}^{-1} \text{ Hz}^{-1}$ at a rest wavelength of 2500\AA , assuming $L_\nu \propto \nu^\alpha$ with $\alpha = -0.8$, $H_0 = 50$, and $q_0 = 0$. Filled symbols are BALQSOs, open symbols are non-BALQSOs, triangles are radio-selected QSOs, and squares are optically selected QSOs. The dotted line is our rough cutoff for variability detection and corresponds to the dotted line in the upper-right graph.