

Figure 7-10

This figure shows histograms of the distribution of the probabilities of constant flux (P) derived from the χ^2 statistic for comparison stars and QSOs. Each point represents the Rs light curve for one star or QSO.

The dotted line is the expected distribution if the errors followed a normal distribution. Logarithmic scales are shown to illustrate the distribution of points at very low values of P . “Outlying” values cause the excess of low probabilities for the comparison stars.

The time variability of the QSOs causes the pronounced deviation of the QSO values from a normal distribution. Note that 16 of the QSOs have $\log(P) < -6.5$ and so are off the right end of the logarithmic plot.