



Figure 10.1: Color-color plots of known quasars from SDSS (colored dots) and stars (black dots) in the LSST photometric system. The quasars are color coded by redshift according to the color key, and for clarity, the dot size is inversely proportional to the expected surface density as a function of redshift. Since there is no y filter in the SDSS system, a random Gaussian color offset has been added to the $z-y$ color according to the width of the stellar locus in the $i-z$ color. The quasar colors become degenerate with those of F stars at redshifts between about 2.5 and 3. See Figure 10.5 and Figure 10.6 for redshifts above 5.