

The figure is a scatter plot showing the time evolution of the color index $g-r$ for a sample of 1000 galaxies. The x-axis represents time in Modified Julian Days (MJD), ranging from approximately 56300 to 57400. The y-axis represents the color index $g-r$, ranging from 0.0 to 2.5. The data points are colored according to their redshift (z), as indicated by the legend in the top right corner: purple for g , blue for r , green for i , and orange for z . The plot shows a dense distribution of points, with a notable increase in the number of points around MJD 56600 and MJD 57000. The color index $g-r$ generally increases with time, with many points reaching values between 1.0 and 2.0. There are several outliers, particularly at high $g-r$ values (above 2.0) and at low $g-r$ values (below 0.5).

