

The figure is a scatter plot showing the time evolution of the color index  $g-r$  for a source. The x-axis represents time in Modified Julian Days (MJD), ranging from 5630 to 5740. The y-axis represents the color index  $g-r$ , ranging from 0.0 to 1.5. Data points are colored according to the filter used: g (purple), r (cyan), i (green), and z (orange). The plot shows several clusters of points at different times, with a notable outlier at approximately (5688, 0.05). The data points are distributed across the time range, with a higher density of points between 5630 and 5710 MJD, and a few points between 5720 and 5740 MJD.

