

A scatter plot showing the relationship between  $\log_{10}(L/L_{\odot})$  (Y-axis) and time [MJD] (X-axis). The X-axis ranges from 56300 to 57400, and the Y-axis ranges from 0 to 10. The data points are categorized into four groups: g (purple), r (blue), i (green), and z (orange). The plot displays four distinct clusters of points, suggesting different populations or evolutionary stages. A legend in the top left corner identifies the groups.

