

Scatter plot showing the first two principal components (PC1 and PC2) for the four groups: g (green), r (red), i (blue), and z (orange). The x-axis (PC1) ranges from 56400 to 57400, and the y-axis (PC2) ranges from 0 to 100. The groups are clustered into four distinct groups along the x-axis, with some overlap between g and r, and i and z. A legend in the bottom left corner identifies the groups by color.

