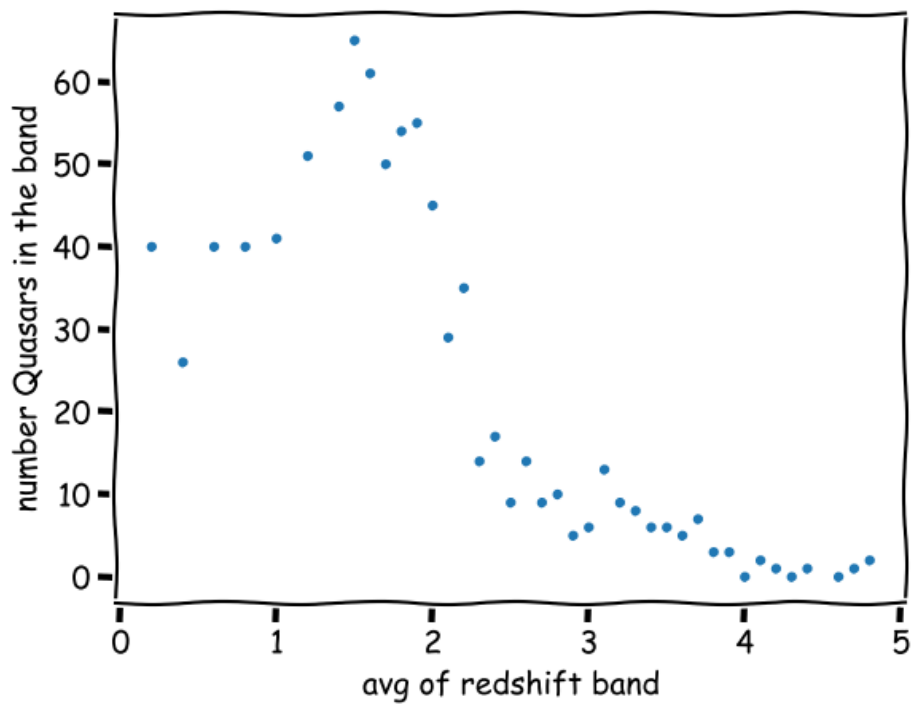


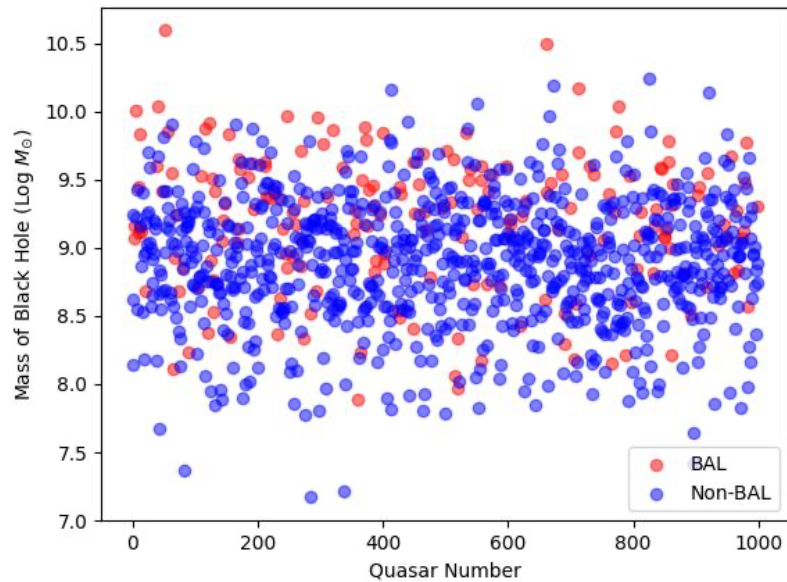
Investigation of BALs
Group 4
PhySoc Hackathon 2024

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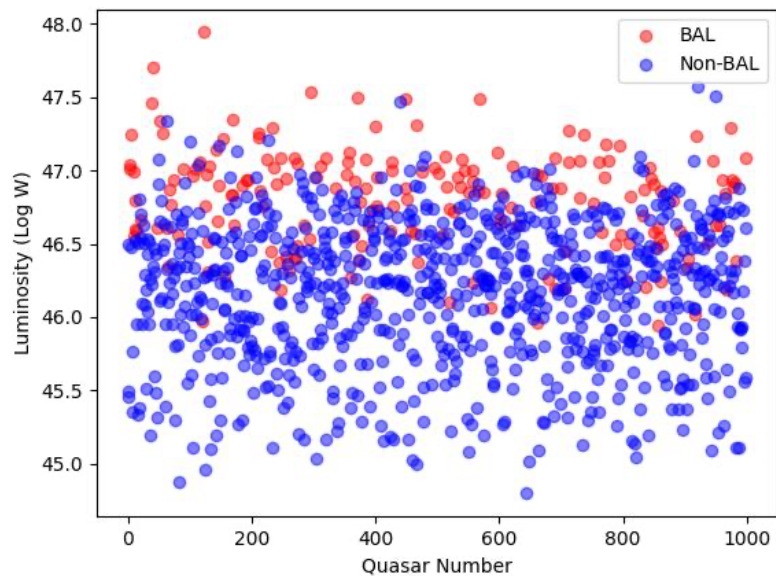
Number Density Graph

Number density of the redshift of the quasars shows a clear drop off in the number of quasars at higher red shifts that can be used as the threshold to classify quasars as BALs since BALs the accretion disks of BALs move at higher velocities compared to other quasars which is the redshift



Mass of the Quasars Plotted against its number to shows little to no correlation between the mass of BALs and Non-BALs

After taking the top 50 heaviest quasars we found that 24 were BALs and 26 as Non-BALs



Luminosity of of the Quasars plotted against its number to show that BALs often have higher luminosity.

We found that after taking the top 50 highest luminosity quasars we found that 39/50 were BALs and 11/50 were Non-BALs clearly showing that BALs often have higher luminosity.