In the Neighbourhood of Tame Monsters I
A study of galaxies near low-redshift quasars.
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Sample
We want to understand quasar formation and how quasars influence surrounding galaxies. We therefore study the properties of the close neighbourhood of quasars. We use 305 quasar-galaxy pairs with spectroscopic redshifts at 0.03 < z < 0.2 from the Sloan Digital Sky Survey (SDSS). The objects in the pairs are situated within a projected distance of 350 kpc and |Δz| < 0.012. Figure 1 shows our sample. Since our sample is non-volume limited, we will use colors when analyzing.

Methods
We apply k-corrections on apparent magnitudes after correction for galactic extinction. We correct the Balmer lines for underlying stellar absorption. All spectral lines are extinction corrected according to Whitford (1958). We finally apply inclination-dependent dust extinction corrections on the colors (Cho & Park 2001).

Results
• There is an increase in the surface density of galaxies near quasars. Comparison to sample of field galaxies within same luminosity range shows that the clustering is stronger for quasar-galaxy pairs than for field-galaxy pairs.
• The number of galaxies is little affected by the |Δz| cut for the quasar-galaxy sample, suggesting strong clustering.
• Could this be a support for a merger-driven scenario behind quasar formation? More studies needed!!