

## K-means results

Nclust	inertia	score	TotObj	N1	N2	N3	N4	N5	N6	N7	N8
3	2205.11511182	0.446488041389	14098	9372	2566	2160	0	0	0	0	0
4	1717.79950916	0.344774042398	14098	6202	5086	1523	1287	0	0	0	0
5	1396.27703381	0.36087186221	14098	5705	3902	2798	1032	661	0	0	0
6	1198.02363846	0.327266318258	14098	4191	3766	2645	2269	646	581	0	0
7	1045.28168467	0.324760207379	14098	3869	3172	2312	2005	1794	509	437	0
8	946.37418835	0.328921863343	14098	3798	3129	1858	1766	1658	1101	491	297

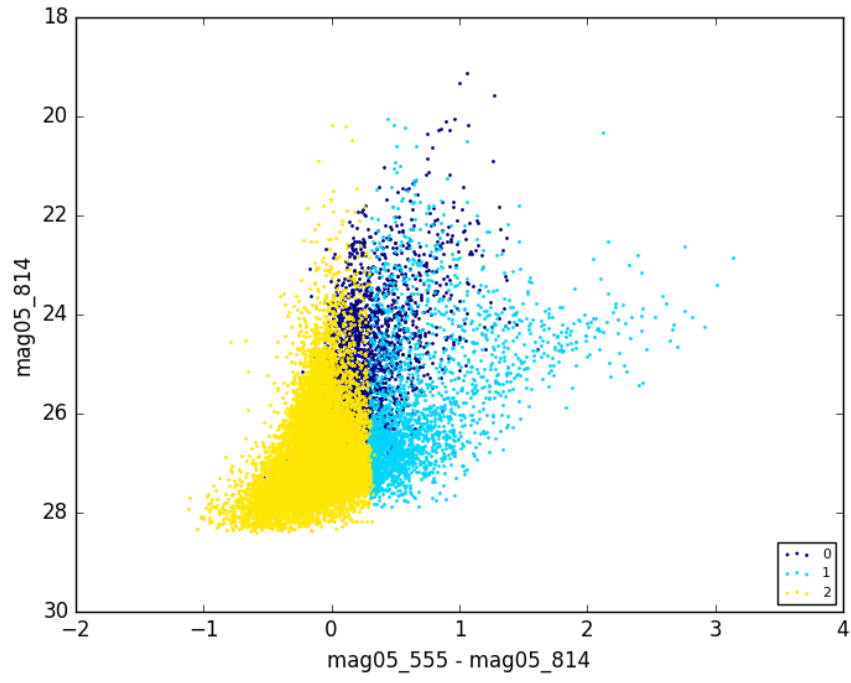


Figure 1: kmeans\_CMD\_3cl\_mag05\_555-mag05\_814vsmag05\_814.png

### kmeans results, Ncl=3

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	2566	0.446488041389	0.373279818173	0.5890	0.5498	3.4390	0.0010	0.3946	0.62775253708	0
2	2160	0.446488041389	0.274267259155	0.6371	0.6001	3.9825	0.0010	0.5755	-0.165740877598	0
3	9372	0.446488041389	0.506224404001	0.2868	0.4030	4.3315	0.0000	0.2338	-0.207497492263	-0

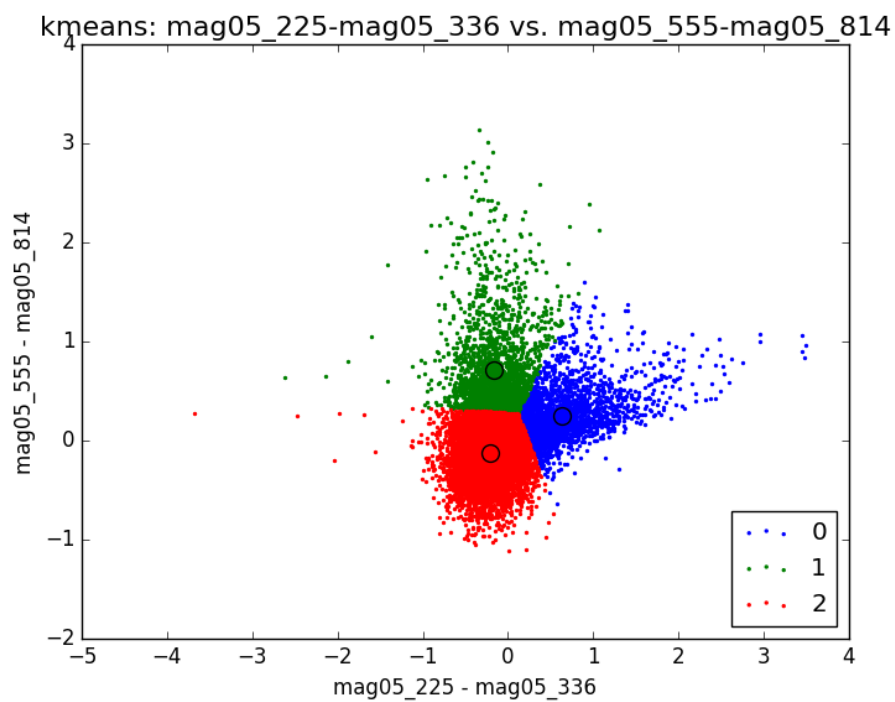


Figure 2: kmeans\_col\_3cl\_mag05\_225-mag05\_336vsmag05\_555-mag05\_814.png

### kmeans results, Ncl=4

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	1287	0.344774042398	0.34606609784	0.7810	0.5749	3.1277	0.0010	0.448	0.909286268425	0
2	1523	0.344774042398	0.258115290833	0.7275	0.6273	3.5457	0.0010	0.647	-0.188915575916	0
3	5086	0.344774042398	0.34656126475	0.2123	0.3472	1.4395	0.0010	0.1954	0.0877977970102	0
4	6202	0.344774042398	0.364320735463	0.3402	0.3609	4.3117	0.0000	0.2224	-0.326731805712	-0

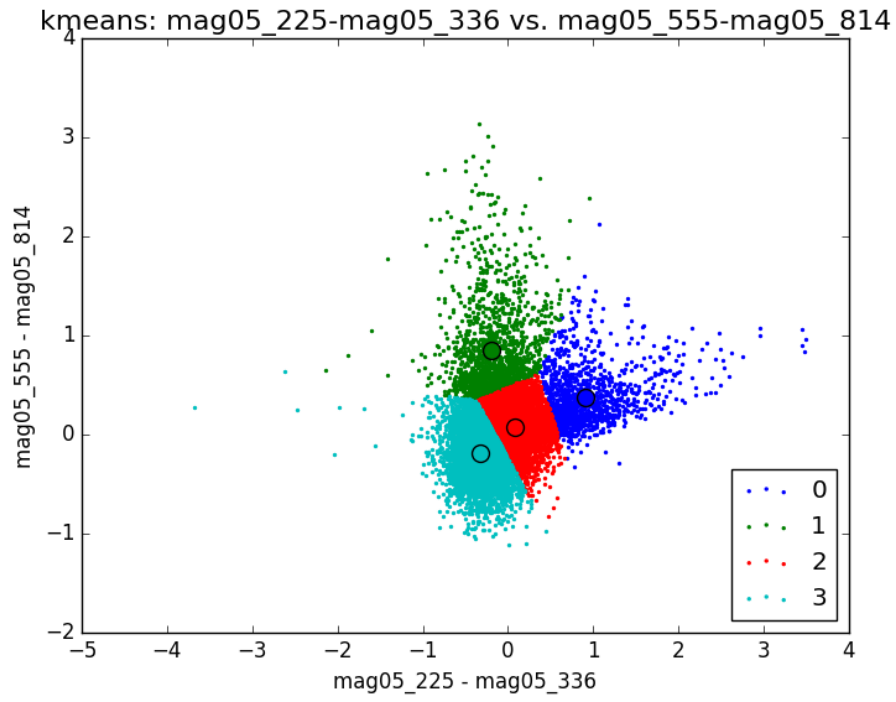


Figure 3: kmeans\_col\_4cl\_mag05\_225-mag05\_336vsmag05\_555-mag05\_814.png

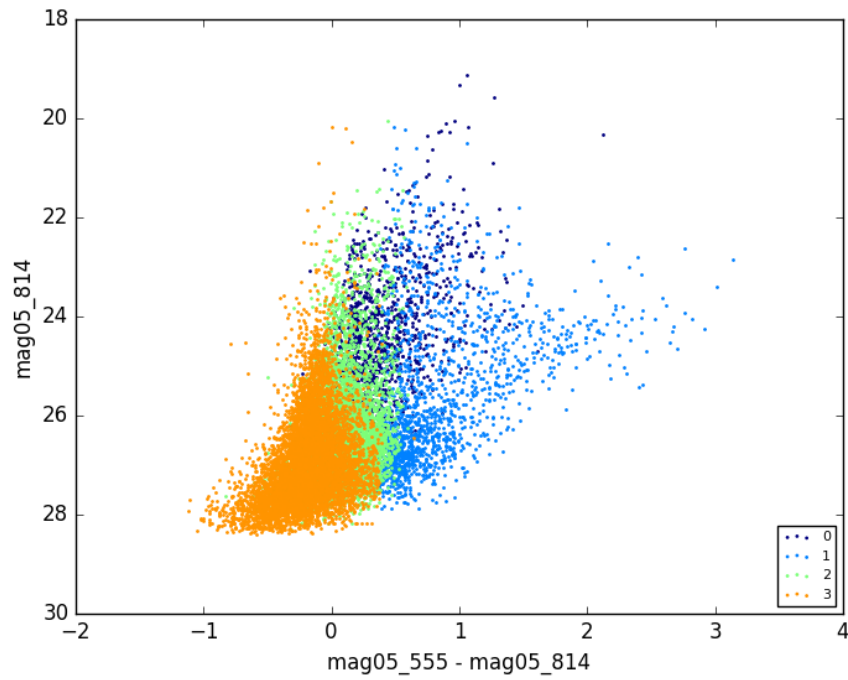


Figure 4: kmeans\_CMD\_4cl\_mag05\_555-mag05\_814vsmag05\_814.png

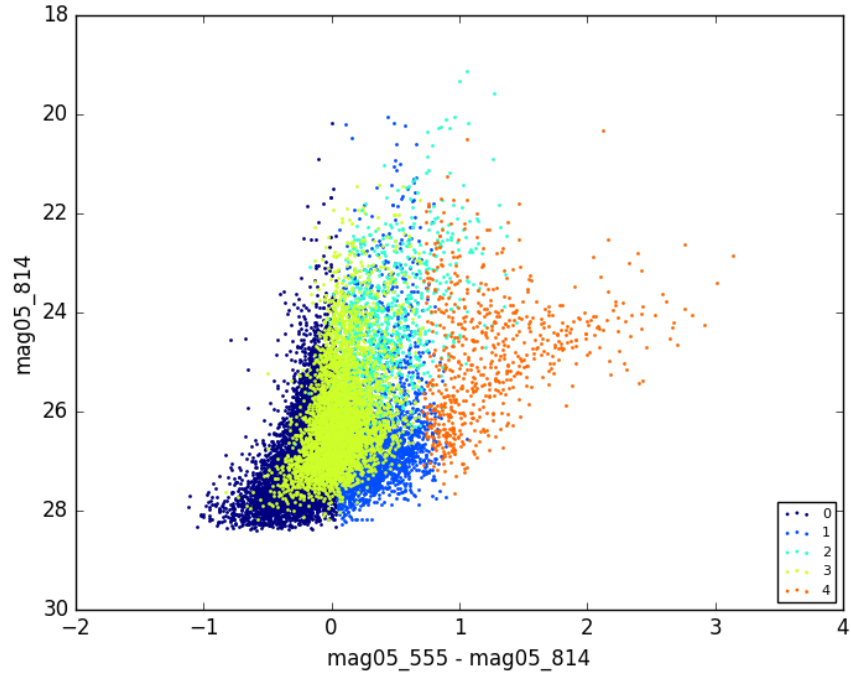


Figure 5: kmeans\_CMD\_5cl\_mag05\_555-mag05\_814vsmag05\_814.png

### kmeans results, Ncl=5

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	5705	0.36087186221	0.397179711323	0.3248	0.3268	2.6005	0.0000	0.1898	-0.289768029479	-0.289768029479
2	2798	0.36087186221	0.313573435212	0.3685	0.3571	3.9103	0.0010	0.3681	-0.282908050089	0.282908050089
3	1032	0.36087186221	0.340736225965	0.8358	0.5725	3.0807	0.0010	0.4657	0.994372340426	0.994372340426
4	3902	0.36087186221	0.358968017015	0.2366	0.3281	1.5436	0.0010	0.1973	0.196522384241	0.196522384241
5	661	0.36087186221	0.290393042388	0.9661	0.6733	2.5078	0.0010	0.7691	-0.0745189107413	0.0745189107413

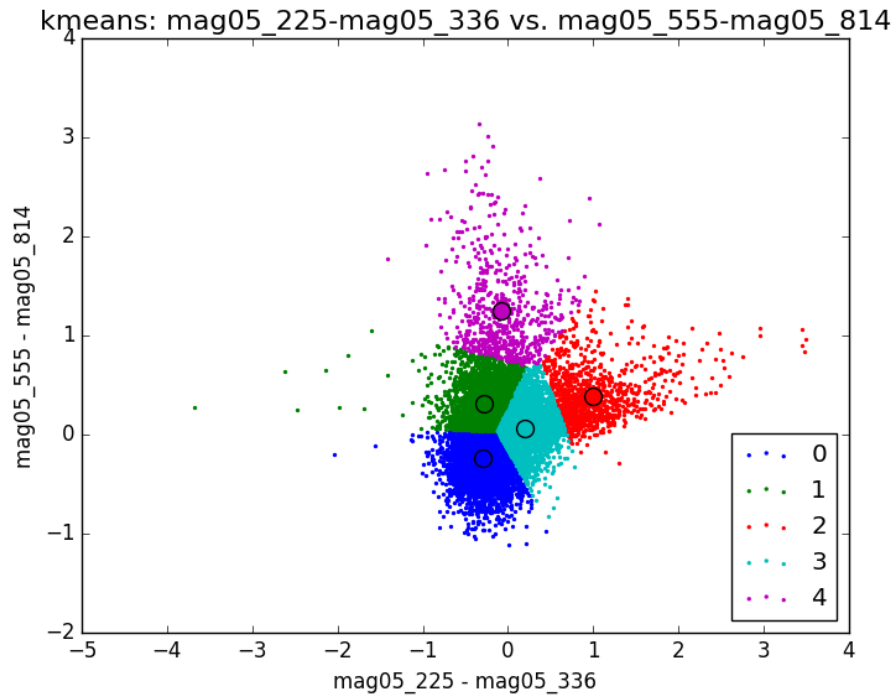


Figure 6: kmeans\_col\_5cl\_mag05\_225-mag05\_336vsmag05\_555-mag05\_814.png

### kmeans results, Ncl=6

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	4191	0.327266318258	0.355451340388	0.1697	0.2621	1.3288	0.0000	0.1557	-0.0274420600858
2	646	0.327266318258	0.314106236908	0.9660	0.5854	2.8706	0.0010	0.5176	1.18450231839
3	2269	0.327266318258	0.333032726618	0.3651	0.3405	1.2597	0.0010	0.2148	0.389846086192
4	2645	0.327266318258	0.302450276312	0.3729	0.3535	2.7930	0.0010	0.3703	-0.265009818731
5	3766	0.327266318258	0.316889329041	0.3832	0.3117	3.9439	0.0000	0.1988	-0.396464304742
6	581	0.327266318258	0.296306209087	1.0089	0.6817	2.5054	0.0010	0.7979	-0.0735008605852

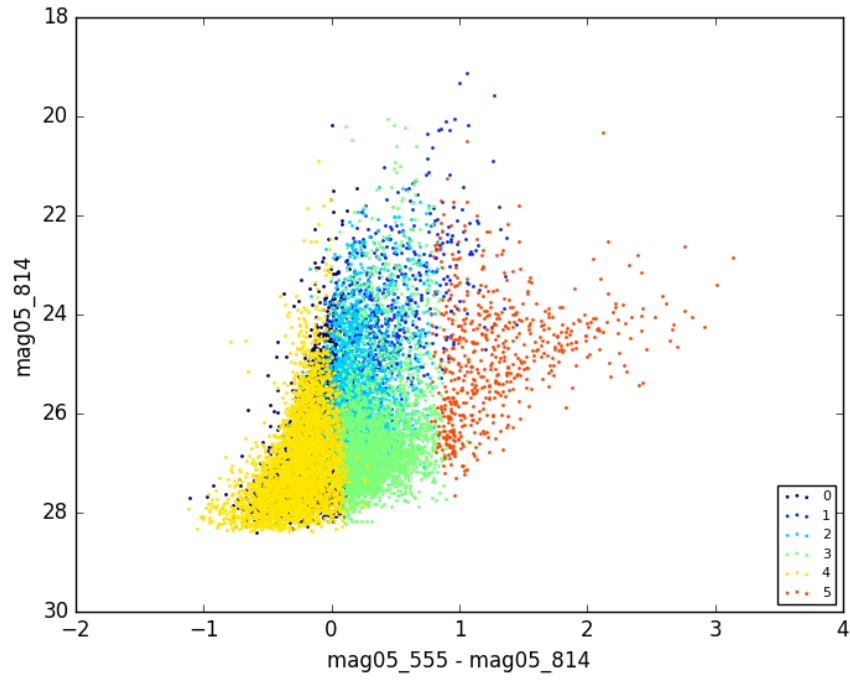


Figure 7: kmeans\_CMD\_6cl\_mag05\_555-mag05\_814vsmag05\_814.png

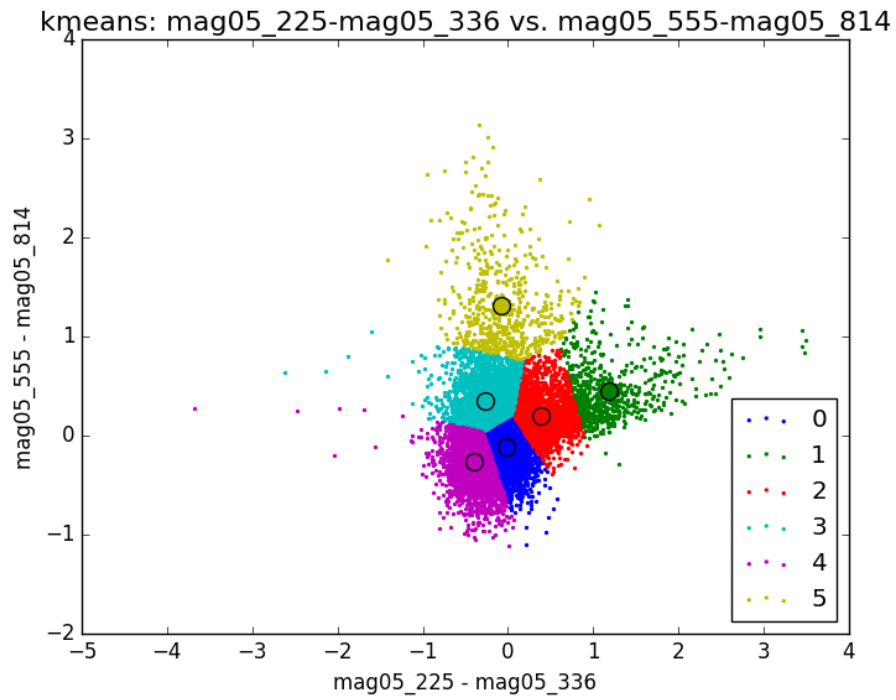


Figure 8: kmeans\_col\_6cl\_mag05\_225-mag05\_336vsmag05\_555-mag05\_814.png

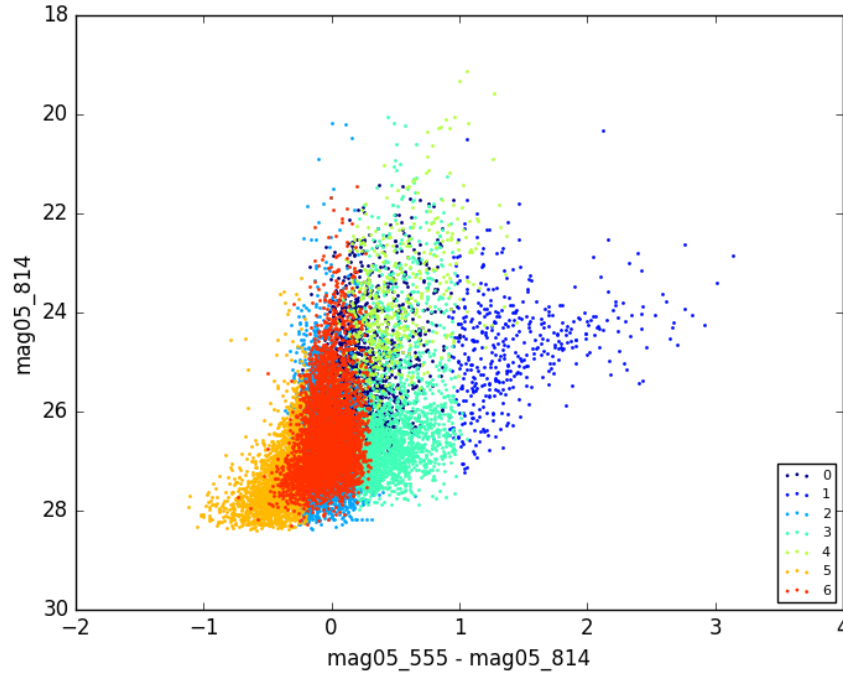


Figure 9: kmeans\_CMD\_7cl\_mag05\_555-mag05\_814vsmag05\_814.png

### kmeans results, Ncl=7

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	1794	0.324760207379	0.344999281821	0.4279	0.3411	1.3664	0.0010	0.2371	0.492924107143	0
2	437	0.324760207379	0.301144303893	1.0977	0.6926	2.5054	0.0010	0.8527	-0.060504587156	-0
3	3172	0.324760207379	0.321921203927	0.3341	0.2645	3.5178	0.0000	0.2456	-0.408332912591	-0
4	2005	0.324760207379	0.295903090175	0.4228	0.3630	1.9455	0.0010	0.3967	-0.191305	0
5	509	0.324760207379	0.298990074827	1.0338	0.5994	2.8061	0.0010	0.547	1.27987058824	0
6	2312	0.324760207379	0.28831478083	0.3872	0.2950	1.3862	0.0000	0.1845	-0.269785006463	-
7	3869	0.324760207379	0.360493966197	0.1438	0.2496	1.1621	0.0000	0.1437	0.0253560723514	-0



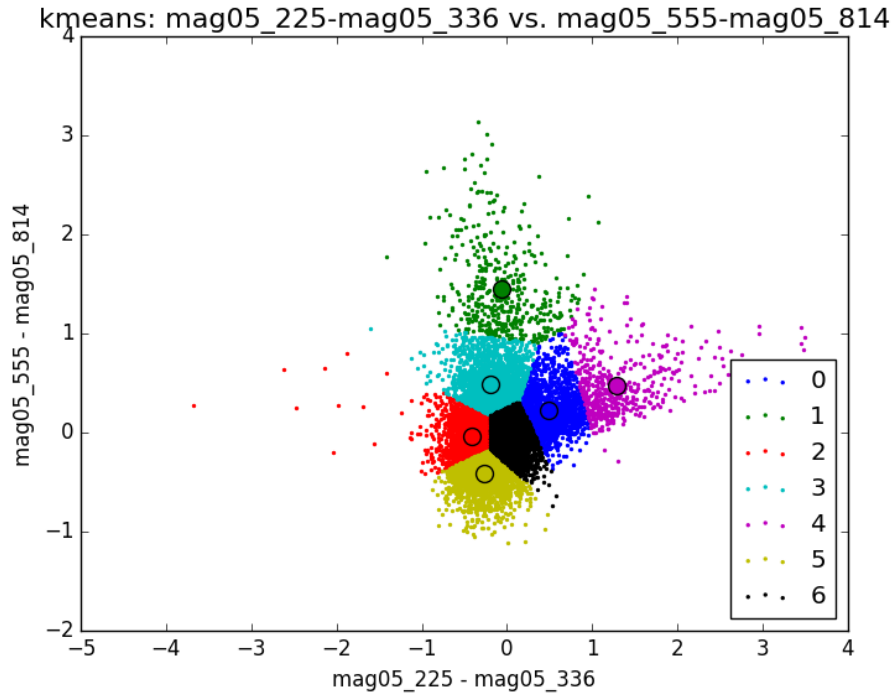


Figure 10: kmeans\_col\_7cl\_mag05\_225-mag05\_336vsmag05\_555-mag05\_814.png

### kmeans results, Ncl=8

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	491	0.328921863343	0.290373251783	1.0457	0.6059	2.7876	0.0010	0.5476	1.29203869654
2	3798	0.328921863343	0.355425848101	0.1363	0.2422	0.8774	0.0010	0.1362	0.0202348763809
3	3129	0.328921863343	0.351159446042	0.3500	0.2470	3.5423	0.0000	0.1982	-0.41575399361
4	297	0.328921863343	0.319131929587	1.2156	0.6737	2.5054	0.0014	0.9651	-0.143717171717
5	1858	0.328921863343	0.30436775617	0.3651	0.2924	2.6272	0.0010	0.3644	-0.342133512064
6	1101	0.328921863343	0.248779664313	0.5373	0.4016	1.4821	0.0010	0.4065	0.0156957311535
7	1658	0.328921863343	0.37941303316	0.4247	0.3142	1.2029	0.0010	0.2459	0.517671922377
8	1766	0.328921863343	0.273279270432	0.3717	0.2897	1.4166	0.0000	0.2159	-0.167418604651

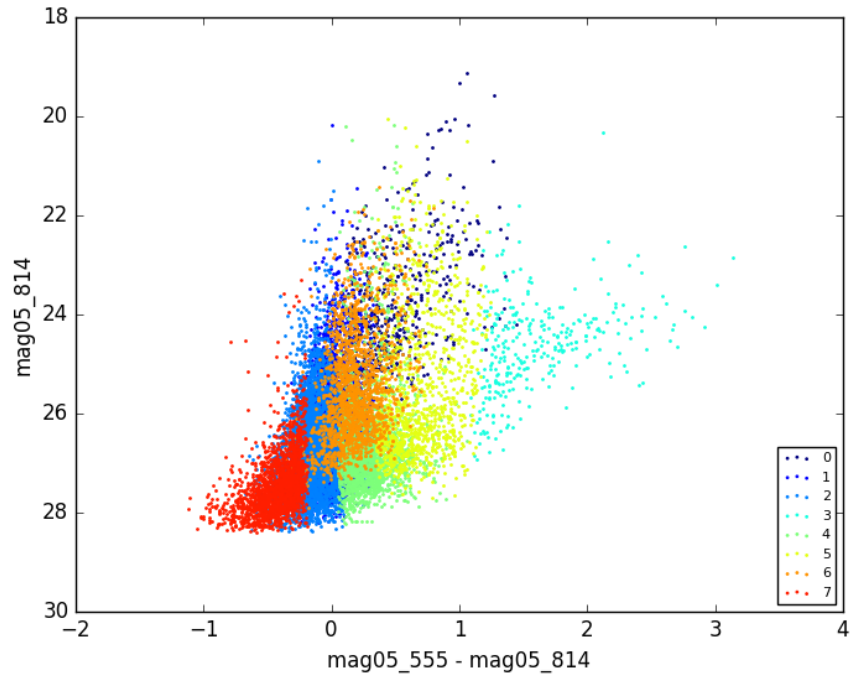


Figure 11: kmeans\_CMD\_8cl\_mag05\_555-mag05\_814vsmag05\_814.png

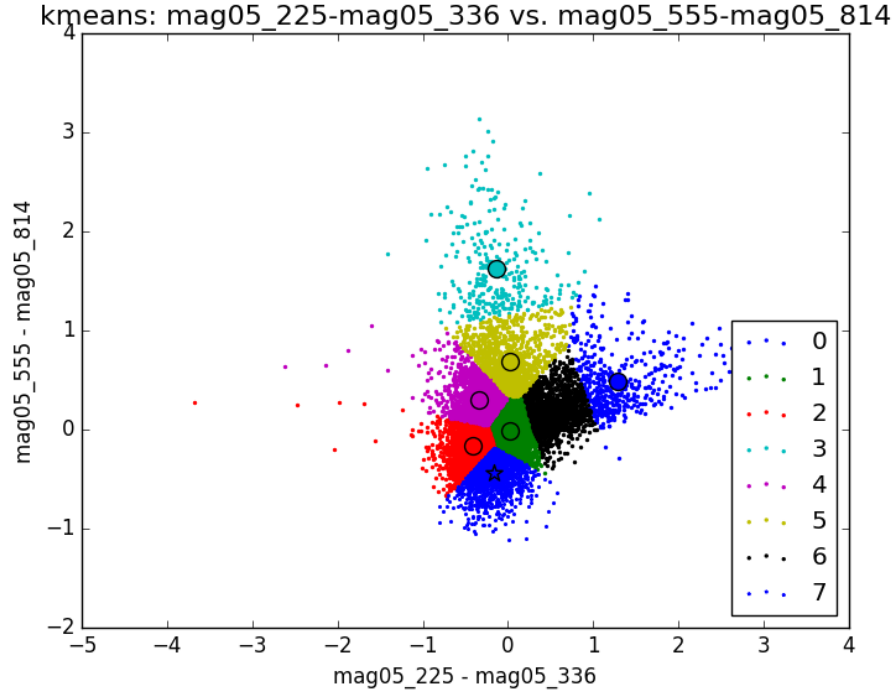


Figure 12: kmeans\_col\_8cl\_mag05\_225-mag05\_336vsmag05\_555-mag05\_814.png

## Meanshift results

Bandw	Nclust	score	TotObj	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10
0.4000	10	0.404693882968	14098	13560	309	128	65	19	13	1	1	1	1
0.5000	6	0.528880430996	14098	13608	361	85	35	8	1	0	0	0	0
0.6000	4	0.572598323697	14098	13882	108	107	1	0	0	0	0	0	0
0.7000	3	0.657666864875	14098	14044	53	1	0	0	0	0	0	0	0
0.4809	7	0.445165231544	14098	13632	326	73	50	13	3	1	0	0	0
0.8000	2	0.717453448089	14098	14091	7	0	0	0	0	0	0	0	0

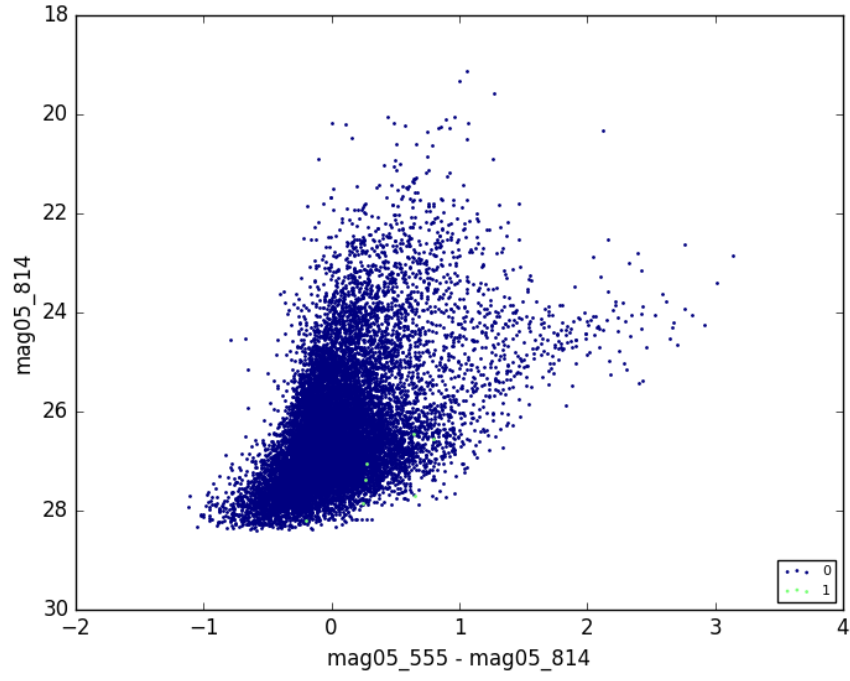


Figure 13: meanshift\_CMD\_2cl\_mag05\_555-mag05\_814vsmag05\_814.png

### meanshift results, Ncl=2

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	14091	0.717453448089	0.717494359492	0.4225	0.6883	5.2273	0.0000	0.4224	-0.124216879293	-
2	7	0.717453448089	0.635098794941	1.7813	0.8883	1.8727	0.2889	1.4674	-3.682	

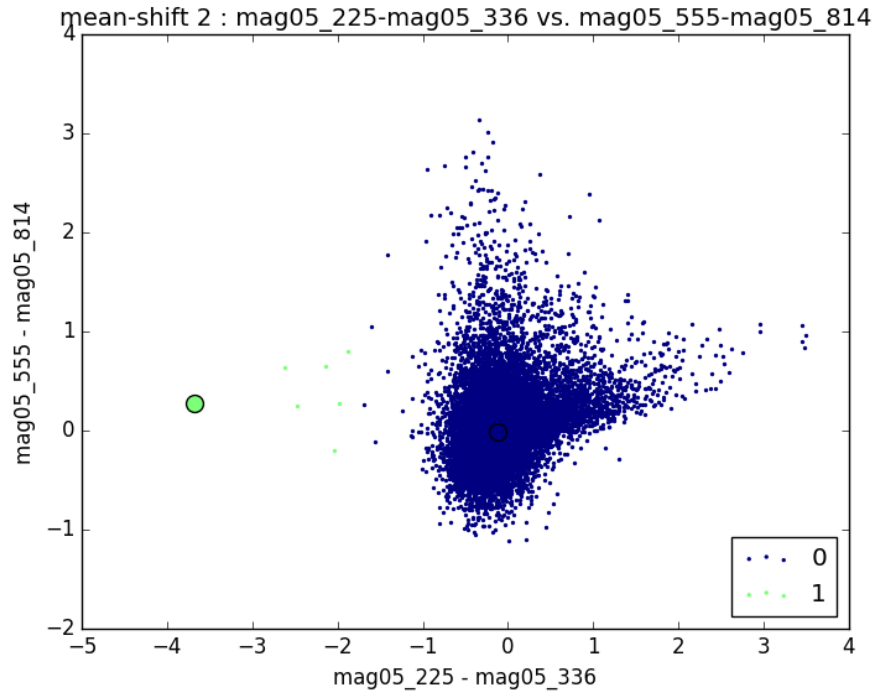


Figure 14: meanshift\_color\_2cl\_mag05\_225-mag05\_336vsmag05\_555-mag05\_814.png

### meanshift results, Ncl=3

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	14044	0.657666864875	0.658912874232	0.4144	0.6794	4.7389	0.0000	0.4143	-0.137324594688
2	53	0.657666864875	0.321038778946	1.5040	1.2445	3.7388	0.0136	1.4679	-1.976125
3	1	0.657666864875	1.0	N/A	N/A	N/A	N/A	1.976	-3.682

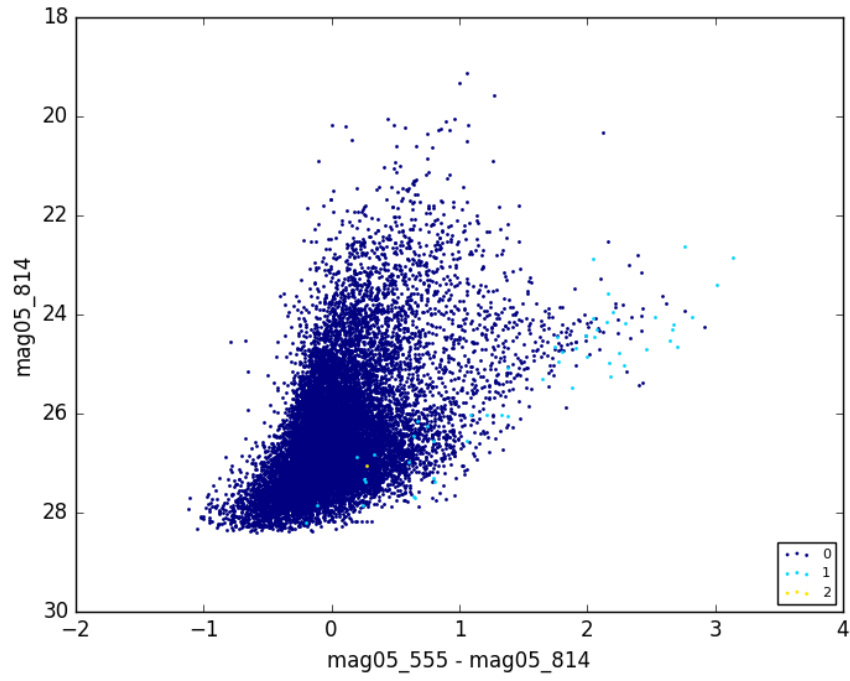


Figure 15: meanshift\_CMD\_3cl\_mag05\_555-mag05\_814vsmag05\_814.png

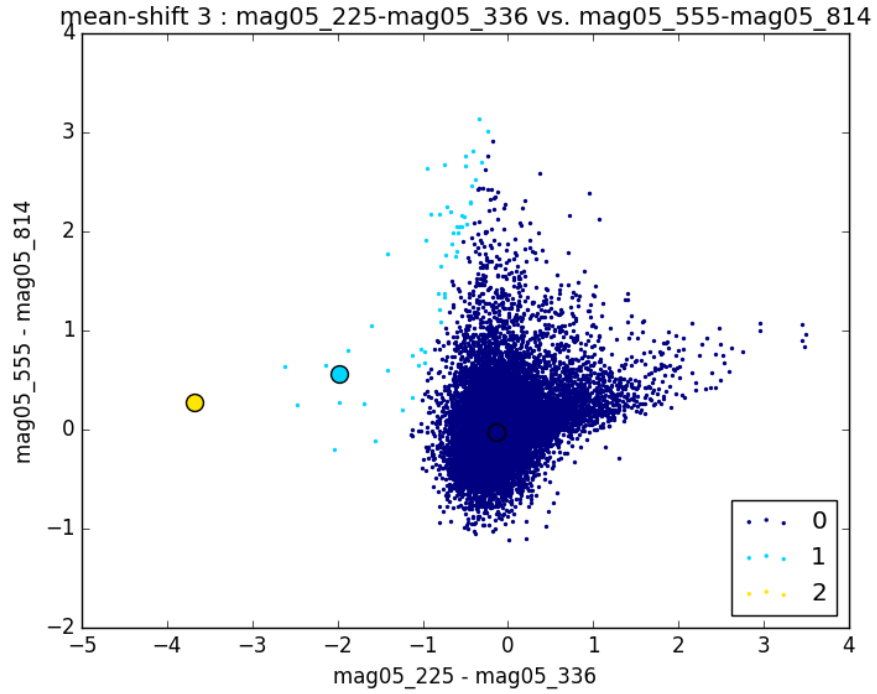


Figure 16: meanshift\_color\_3cl\_mag05\_225-mag05\_336vsmag05\_555-mag05\_814.png

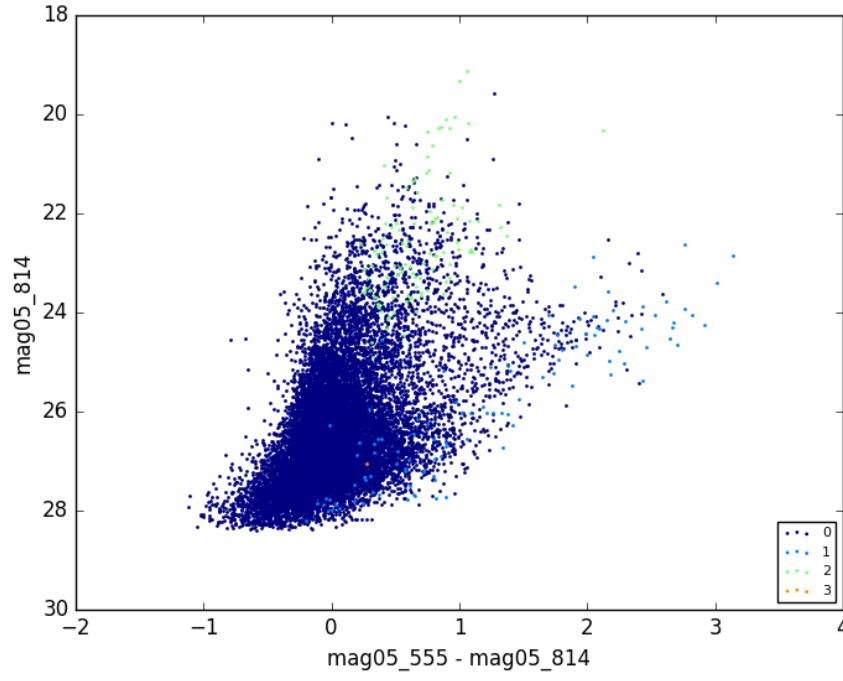


Figure 17: meanshift\_CMD\_4cl\_mag05\_555-mag05\_814vsmag05\_814.png

### meanshift results, Ncl=4

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	13882	0.572598323697	0.574243810658	0.3897	0.6509	3.7718	0.0000	0.3897	-0.153189346885
2	107	0.572598323697	0.218191969887	1.2918	1.2078	3.7388	0.0092	1.2744	-1.6305
3	108	0.572598323697	0.708259695853	1.5049	0.6333	2.7314	0.0149	0.7399	3.217
4	1	0.572598323697	1.0	N/A	N/A	N/A	N/A	1.976	-3.682

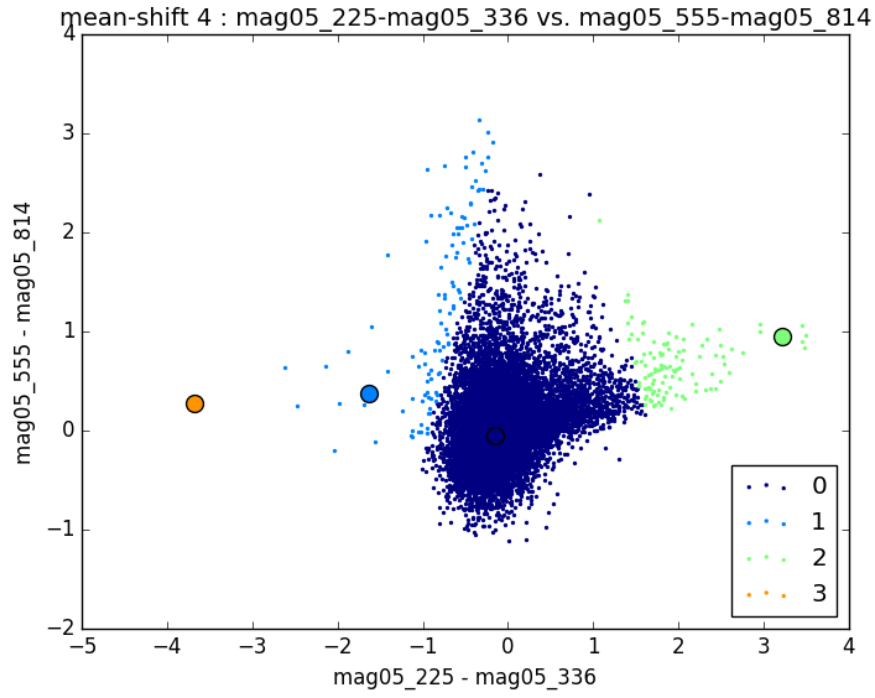


Figure 18: meanshift\_color\_4cl\_mag05\_225-mag05\_336vsmag05\_555-mag05\_814.png

### meanshift results, Ncl=6

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	13608	0.528880430996	0.536837877606	0.3599	0.6125	2.7471	0.0000	0.3594	-0.167874344429
2	85	0.528880430996	0.724335204763	1.5603	0.5693	1.9656	0.0191	0.8034	3.29483333333
3	8	0.528880430996	0.380384952103	1.3665	0.7653	1.6287	0.2615	1.0753	-2.0626
4	361	0.528880430996	0.198267448009	1.1810	0.9150	3.2804	0.0014	0.8	0.86075
5	35	0.528880430996	0.39086734179	1.1082	0.6718	1.9486	0.0144	1.104	-1.87633333333
6	1	0.528880430996	1.0	N/A	N/A	N/A	N/A	1.976	-3.682



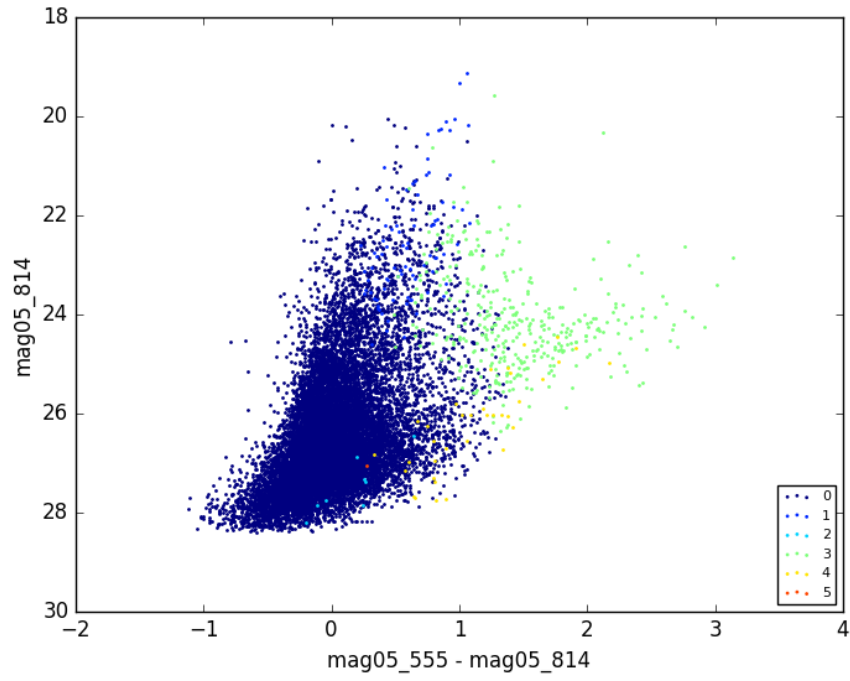


Figure 19: meanshift\_CMD\_6cl\_mag05\_555-mag05\_814vsmag05\_814.png

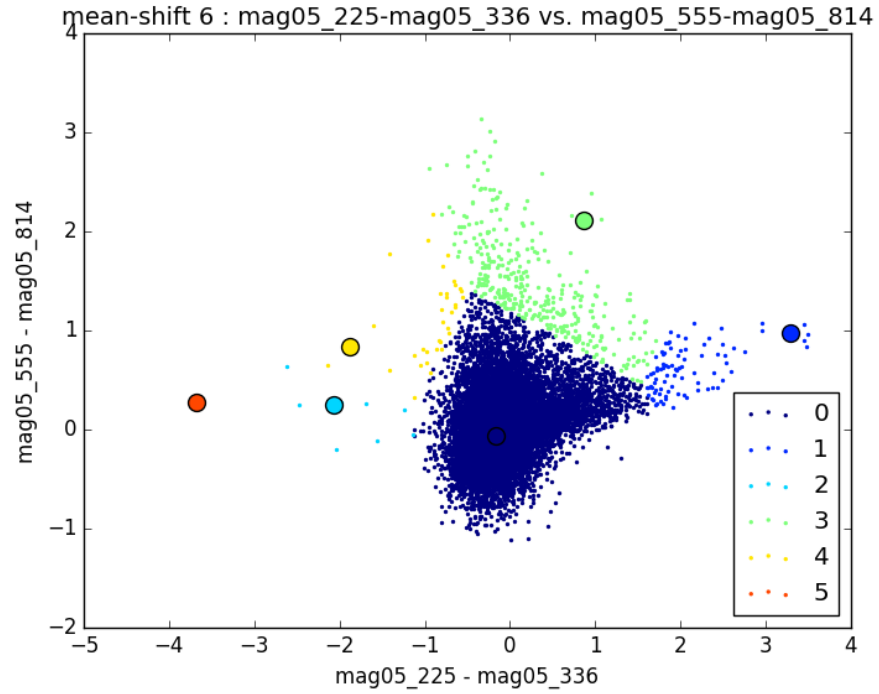


Figure 20: meanshift\_color\_6cl\_mag05\_225-mag05\_336vsmag05\_555-mag05\_814.png

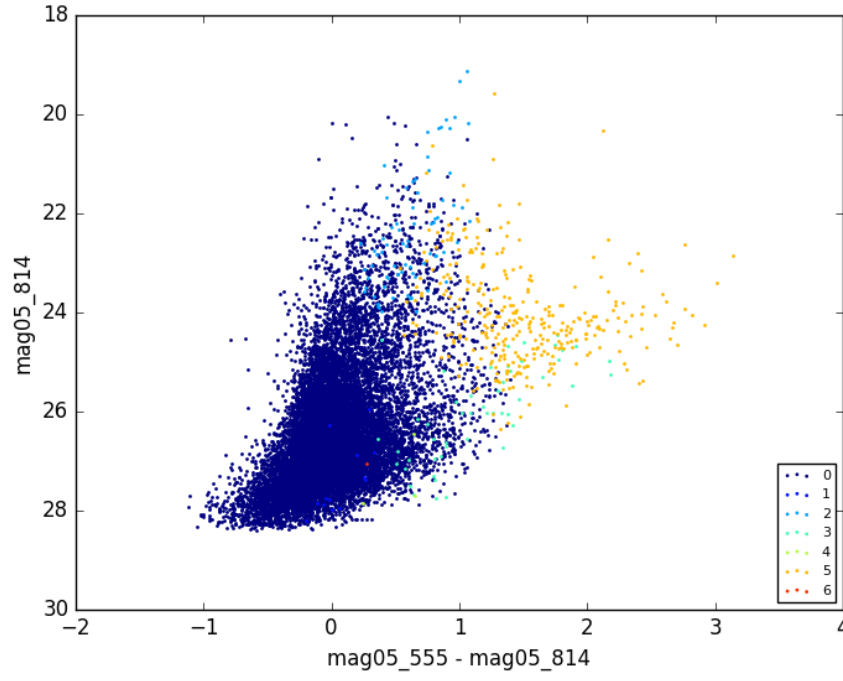


Figure 21: meanshift\_CMD\_7cl\_mag05\_555-mag05\_814vsmag05\_814.png

### meanshift results, Ncl=7

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	13632	0.445165231544	0.450807368496	0.3622	0.6159	2.8087	0.0000	0.3618	-0.167544559929
2	13	0.445165231544	0.459745136326	0.9739	0.4859	1.1374	0.0280	0.7493	-1.8175
3	73	0.445165231544	0.724592797321	1.6060	0.5791	1.9206	0.0191	0.8269	3.464
4	50	0.445165231544	0.318638970495	1.0743	0.6527	1.8201	0.0144	1.062	-1.76175
5	3	0.445165231544	0.569475282981	1.7523	0.4786	0.5282	0.4223	1.4735	-2.40866666667
6	326	0.445165231544	0.16264126265	1.2071	0.9331	3.3368	0.0014	0.8095	0.913333333333
7	1	0.445165231544	1.0	N/A	N/A	N/A	N/A	1.976	-3.682

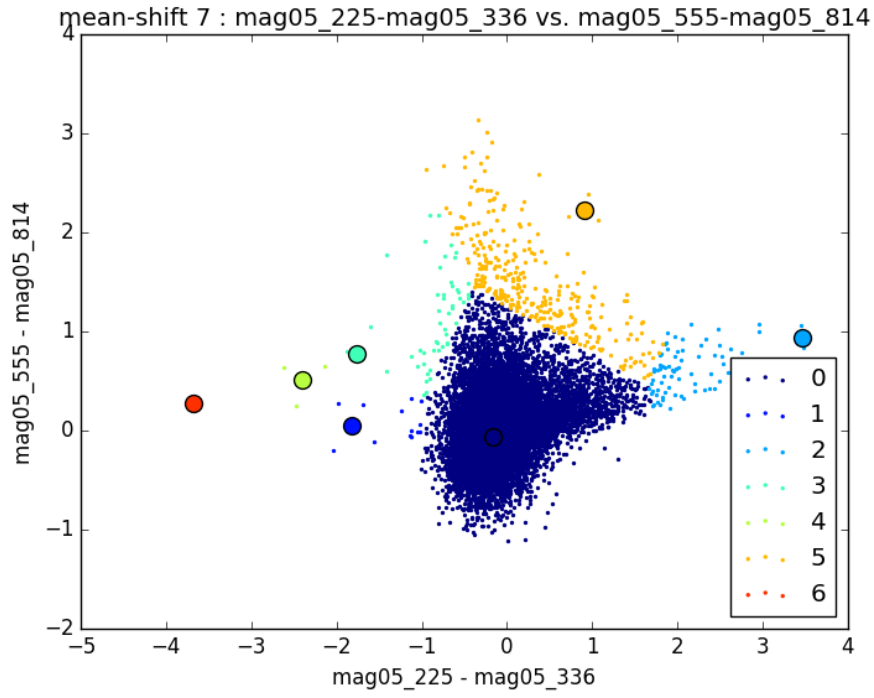


Figure 22: meanshift\_color\_7cl\_mag05\_225-mag05\_336vsmag05\_555-mag05\_814.png

### meanshift results, Ncl=10

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	13560	0.404693882968	0.412076272016	0.3570	0.6083	2.7794	0.0000	0.3565	-0.17862081638
2	309	0.404693882968	0.00206492932664	1.1394	0.9092	3.3699	0.0014	0.668	0.86075
3	65	0.404693882968	0.685076186431	1.6321	0.5911	1.9206	0.0197	0.8547	3.464
4	13	0.404693882968	0.234117221525	1.0555	0.5134	1.3360	0.0144	1.0353	-1.876333333333
5	19	0.404693882968	0.265523331241	0.8620	0.4483	1.1300	0.0280	0.7337	-1.744666666667
6	1	0.404693882968	1.0	N/A	N/A	N/A	N/A	0.9185	-2.036
7	1	0.404693882968	1.0	N/A	N/A	N/A	N/A	1.976	-3.682
8	128	0.404693882968	0.471590867981	1.2215	0.5457	1.8738	0.0051	1.0813	-1.409
9	1	0.404693882968	1.0	N/A	N/A	N/A	N/A	1.6295	-2.621
10	1	0.404693882968	1.0	N/A	N/A	N/A	N/A	1.3565	-2.469

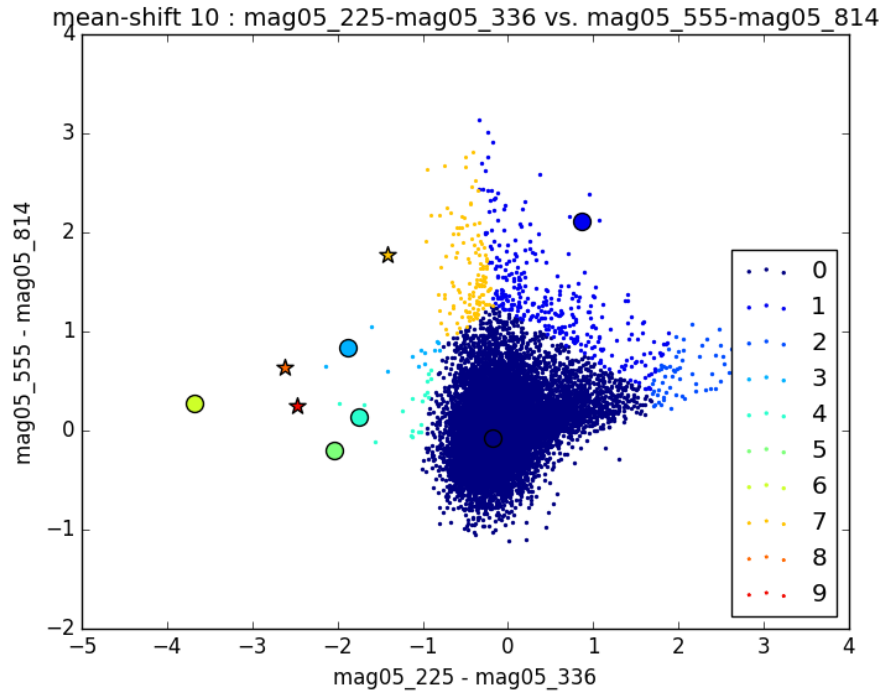


Figure 23: meanshift\_color\_10cl\_mag05\_225-mag05\_336vsmag05\_555-mag05\_814.png

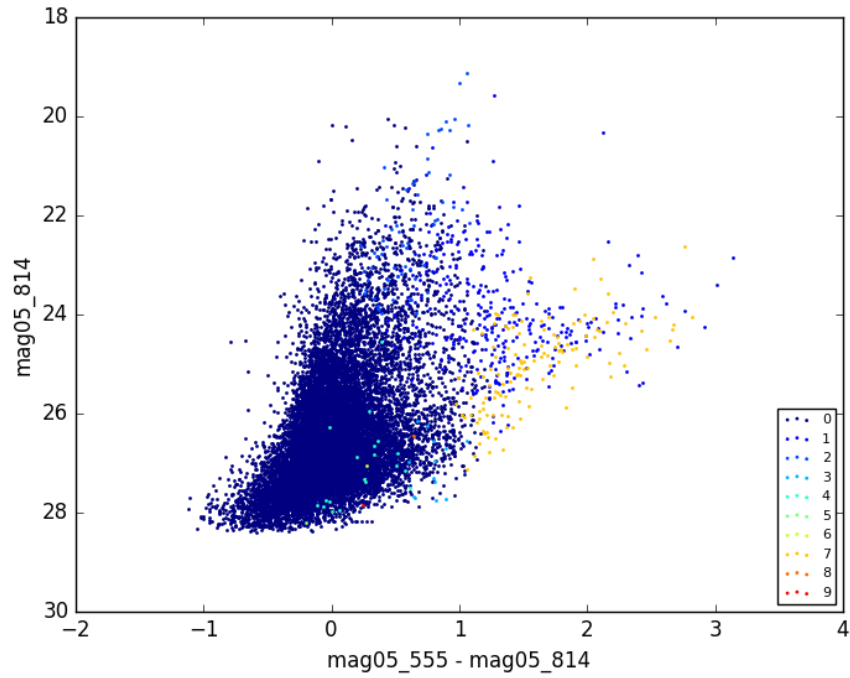


Figure 24: meanshift\_CMD\_10cl\_mag05\_555-mag05\_814vsmag05\_814.png