Clustering output, found in /home/pauline/Research/m83_clustering/results/broad_narrow/U_OII/clustering/mag05_336-mag05_373_mag05_438-mag05_555

K-means results

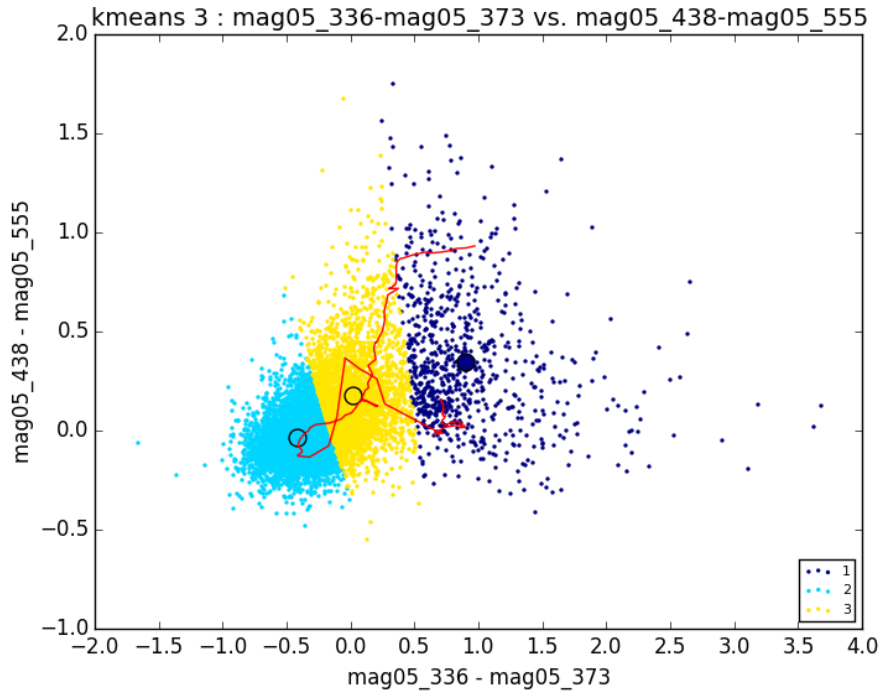| Nclust	inertia	score	TotObj	N1	N2	N3	N4	N5	N6	N7	N8
3	678.423450083	0.433628360864	8657	5059	2800	798	0	0	0	0	0
4	540.584349293	0.368009423149	8657	3582	3382	1244	449	0	0	0	0
5	455.135422447	0.339241976556	8657	3409	2669	1663	735	181	0	0	0
6	381.930578614	0.34247950184	8657	3393	2371	1781	617	336	159	0	0
7	331.476376848	0.343599263952	8657	2821	2307	1297	1184	537	365	146	0
8	293.28720089	0.341088235411	8657	2356	2042	1503	1315	557	520	225	139

Figure 1: kmeans_color_3cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

kmeans results, Ncl=3

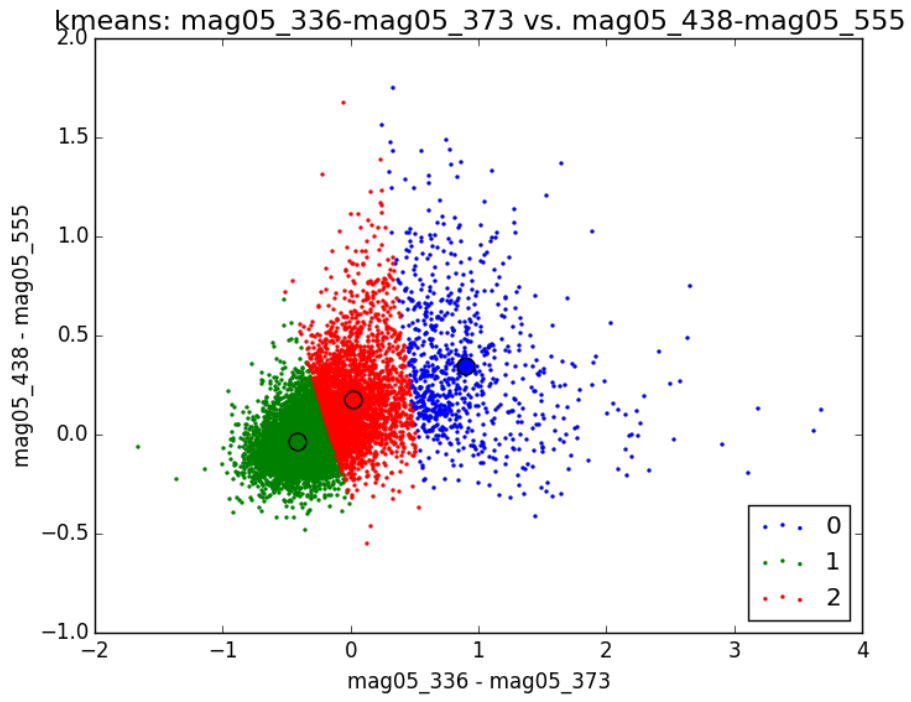| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	798	0.433628360864	0.308680918846	0.7909	0.6541	3.7275	0.0010	0.4855	0.903345864662	(
2	5059	0.433628360864	0.524115375576	0.3249	0.2458	1.6738	0.0000	0.2354	-0.412615932002	-(
3	2800	0.433628360864	0.305747736328	0.2374	0.3454	2.2339	0.0000	0.2152	0.0230564285714	(

Figure 2: kmeans_col_3cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

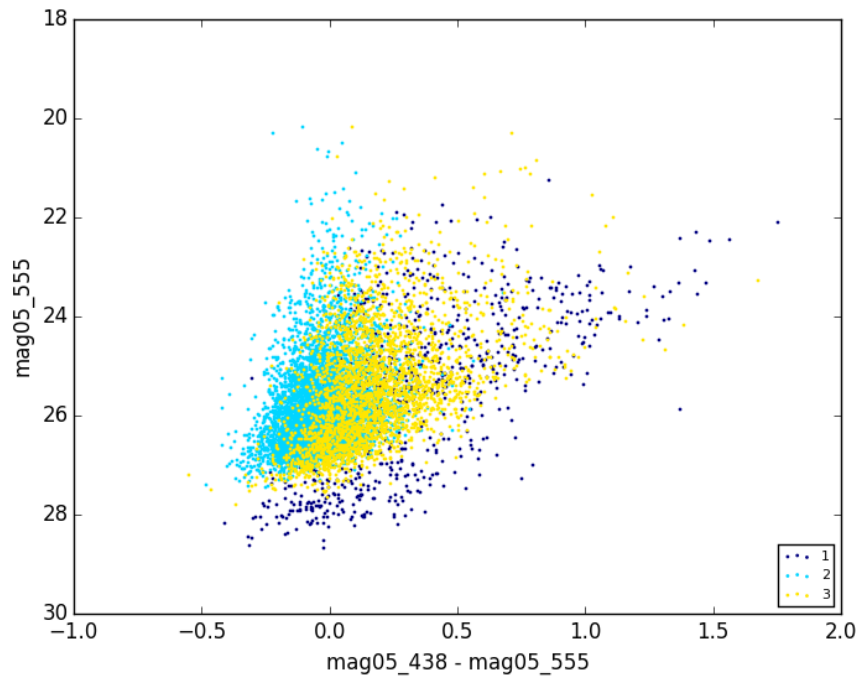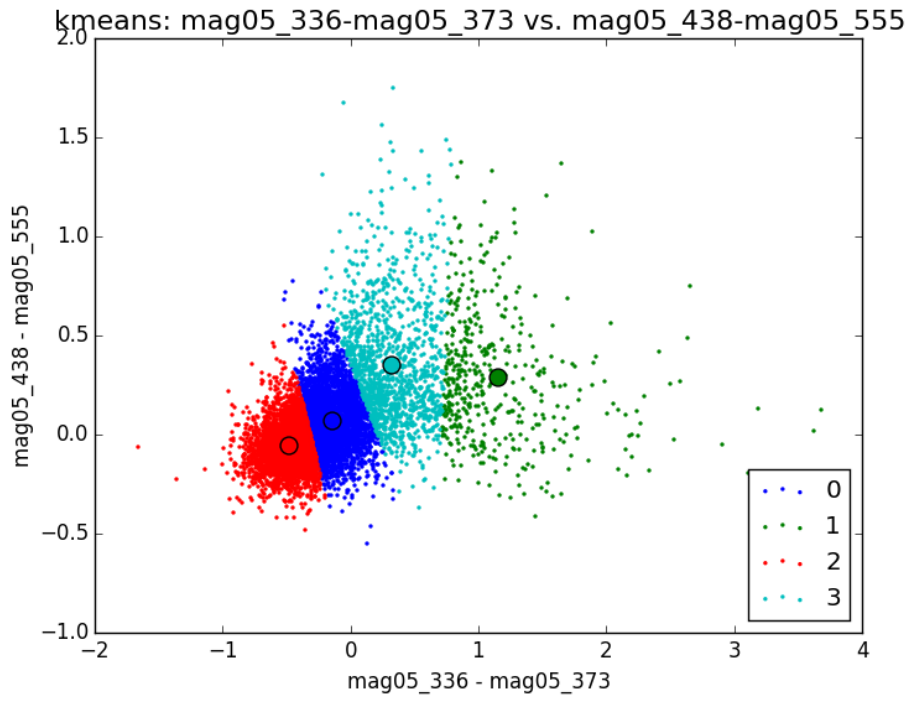Figure 3: kmeans_CMD_3cl_mag05_438-mag05_555vsmag05_555.png

Figure 4: kmeans_col_4cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

kmeans results, Ncl=4

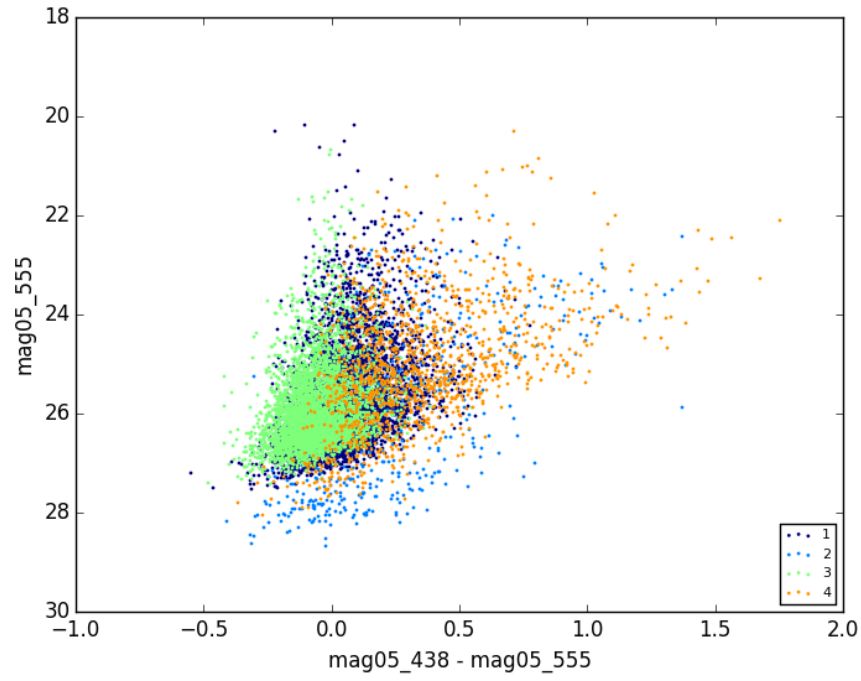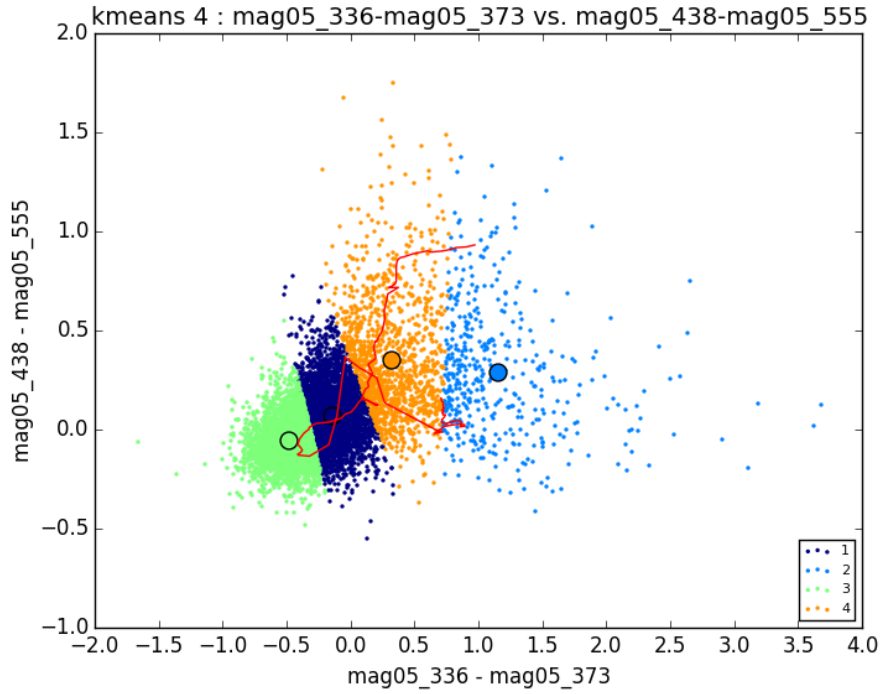| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	3382	0.368009423149	0.339917151811	0.1814	0.2466	1.4481	0.0000	0.1774	-0.14635452395	0.0
2	449	0.368009423149	0.284044094468	0.9269	0.6438	3.0852	0.0010	0.5846	1.153844098	0.
3	3582	0.368009423149	0.452786673353	0.3639	0.2137	1.4821	0.0000	0.245	-0.4808813512	-0.
4	1244	0.368009423149	0.230578863675	0.4201	0.4379	2.1286	0.0010	0.2549	0.319466237942	0.

4

Figure 5: kmeans_CMD_4cl_mag05_438-mag05_555vsmag05_555.png

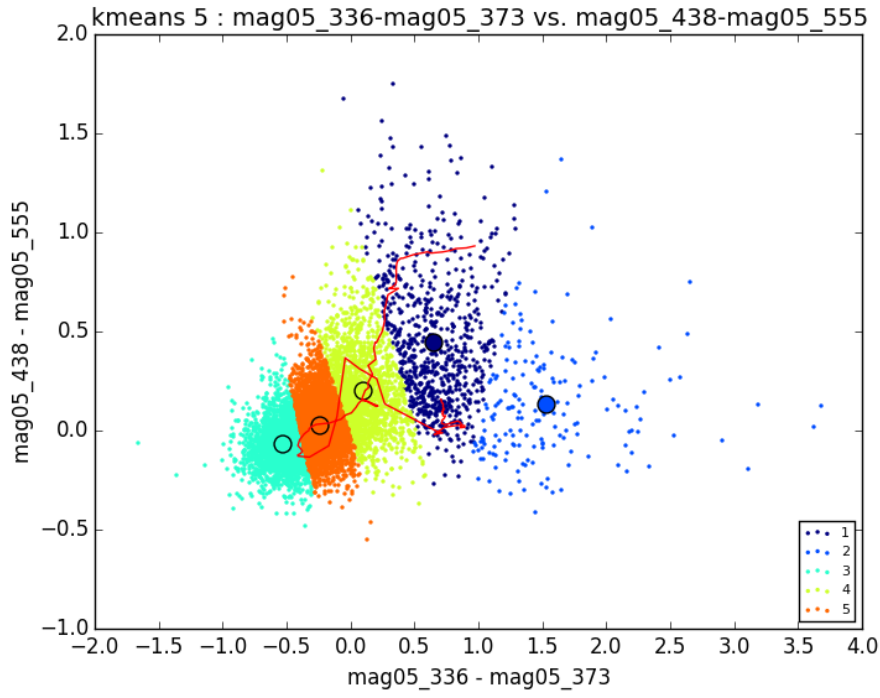Figure 6: kmeans_color_4cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

Figure 7: kmeans_color_5cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

kmeans results, Ncl=5

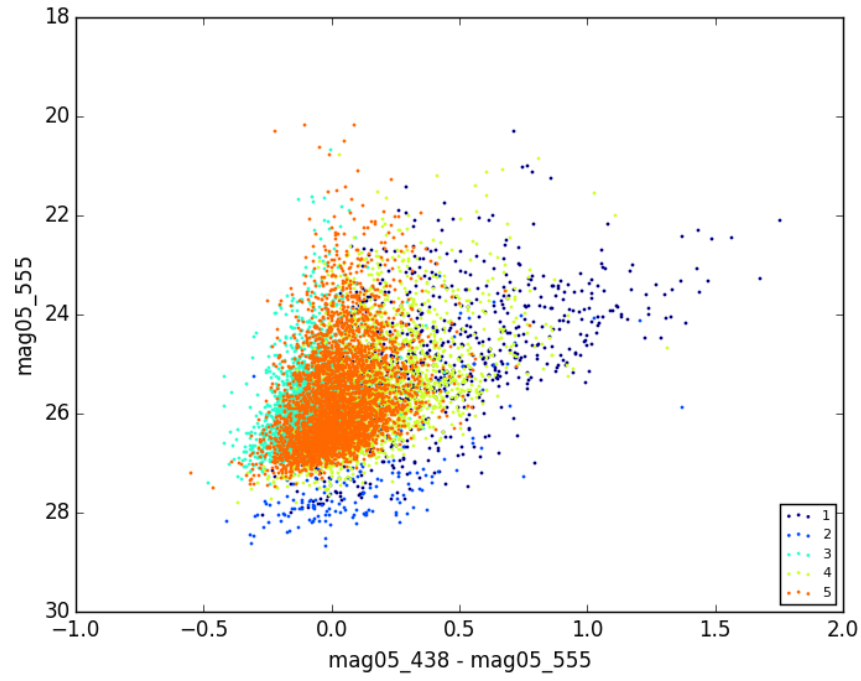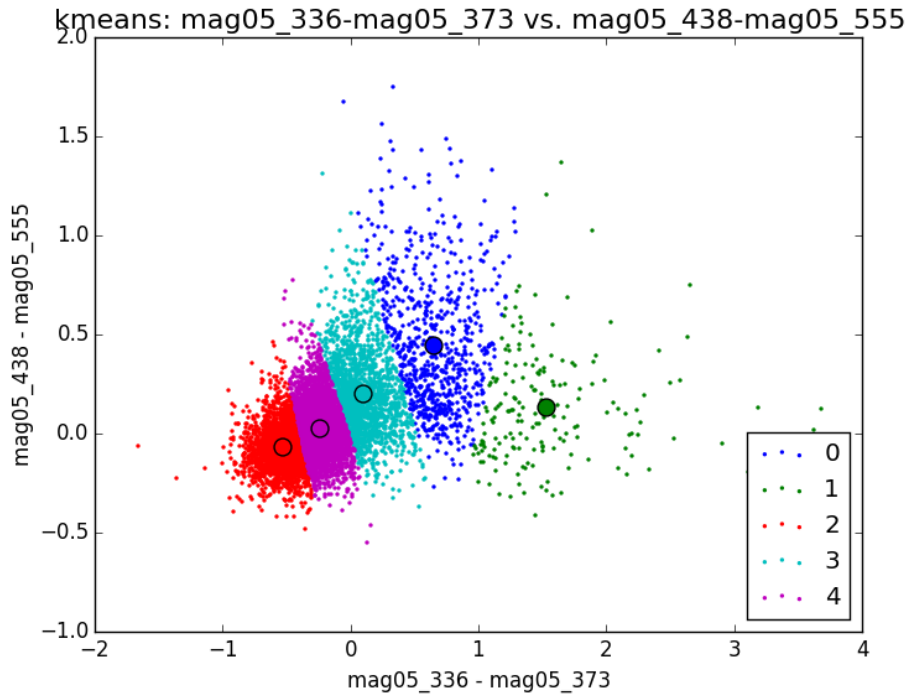| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	735	0.339241976556	0.25286759361	0.6282	0.4955	2.1070	0.0010	0.3058	0.653497959184	
2	181	0.339241976556	0.349601803639	1.1581	0.6437	2.7271	0.0040	0.8037	1.53475138122	
3	2669	0.339241976556	0.410634684497	0.3934	0.1993	1.3807	0.0000	0.2563	-0.527340576995	-(
4	1663	0.339241976556	0.261298261586	0.2410	0.3132	1.8439	0.0000	0.1882	0.0997149729405	(
5	3409	0.339241976556	0.339442417525	0.2086	0.2087	1.4481	0.0000	0.1796	-0.240088295688	0

Figure 8: kmeans_CMD_5cl_mag05_438-mag05_555vsmag05_555.png

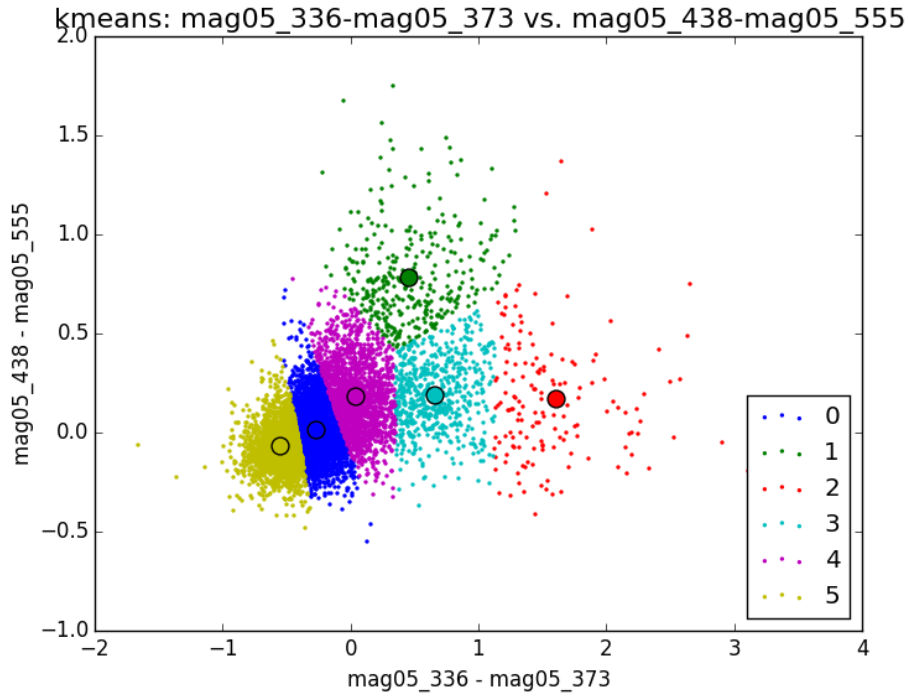Figure 9: kmeans_col_5cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

7

Figure 10: kmeans_col_6cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

kmeans results, Ncl=6

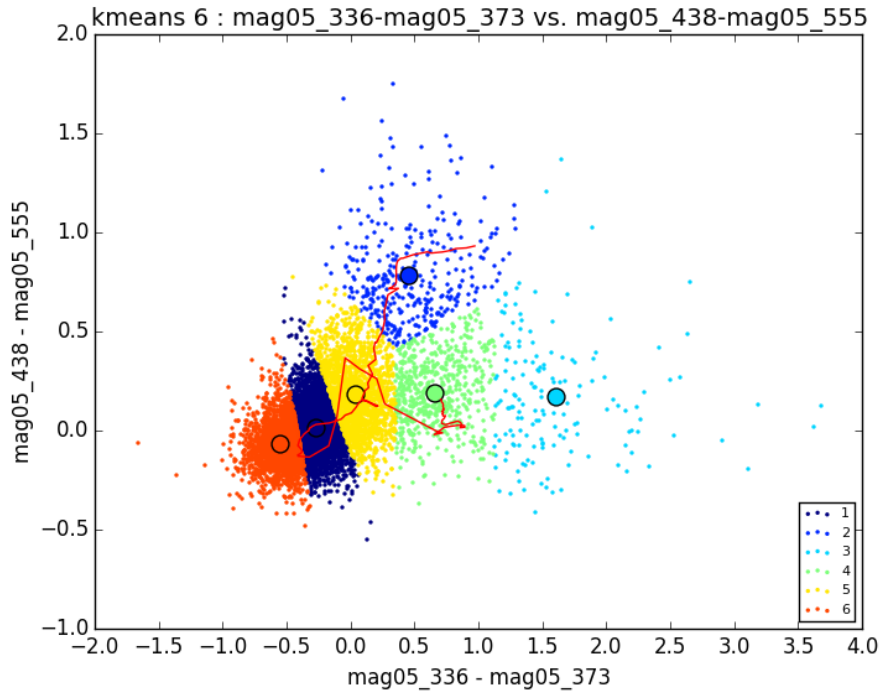| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	3393	0.34247950184	0.33482978128	0.2195	0.1994	1.4217	0.0000	0.1789	-0.264907161804	0.0
2	336	0.34247950184	0.252796996918	0.6993	0.4774	1.5423	0.0010	0.3172	0.462711309524	0.
3	159	0.34247950184	0.322610918648	1.2075	0.6481	2.5837	0.0040	0.8183	1.60513836478	0.
4	617	0.34247950184	0.384821327576	0.5234	0.3449	1.0889	0.0010	0.3051	0.660474878444	0.
5	1781	0.34247950184	0.278146141152	0.2031	0.2747	1.3535	0.0000	0.1708	0.0401605839416	0.
6	2371	0.34247950184	0.404774203292	0.4049	0.1945	1.3772	0.0000	0.2625	-0.545294390553	-0.

8

Figure 11: kmeans__color__6cl__mag05__336-mag05__373vsmag05__438-mag05__555.png
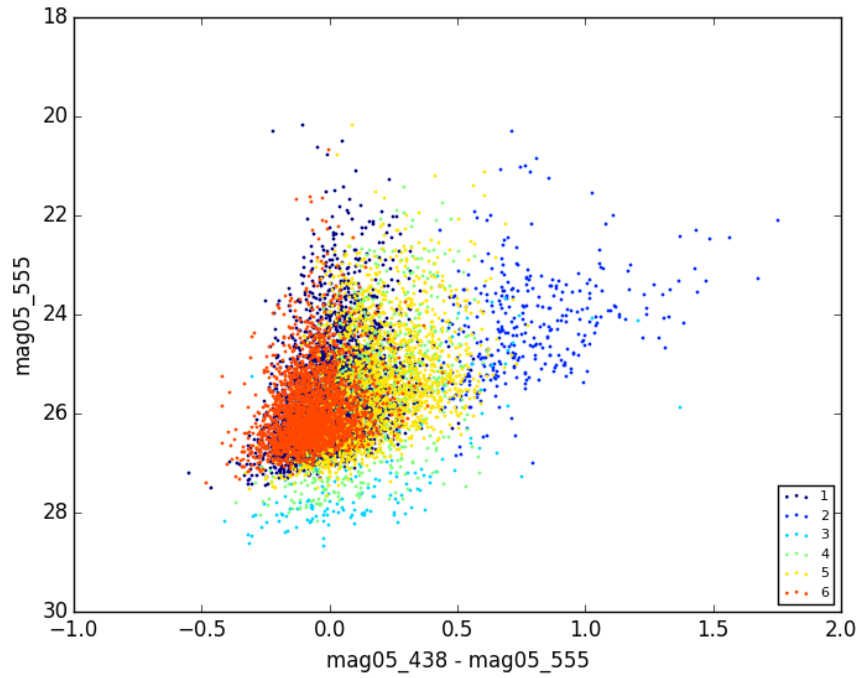

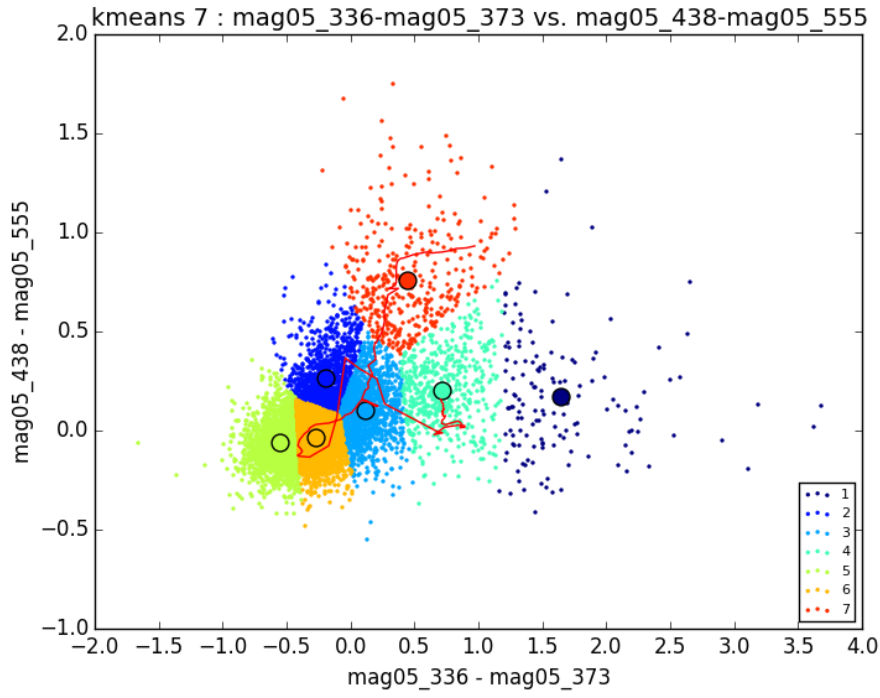Figure 12: kmeans__CMD__6cl__mag05__438-mag05__555vsmag05__555.png

9

Figure 13: kmeans_color_7cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

kmeans results, Ncl=7

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	146	0.343599263952	0.30968934866	1.2347	0.6495	2.5507	0.0040	0.8365	1.64552054795	0
2	1184	0.343599263952	0.266790900948	0.2641	0.2216	0.7800	0.0010	0.2618	-0.194076858108	0
3	1297	0.343599263952	0.318479662047	0.1735	0.2384	1.0440	0.0000	0.135	0.119802621434	0.
4	537	0.343599263952	0.380699389805	0.5649	0.3413	1.2767	0.0010	0.3244	0.723413407821	(
5	2307	0.343599263952	0.374674917217	0.4073	0.1919	1.3030	0.0000	0.2669	-0.550320762896	-0
6	2821	0.343599263952	0.370534928741	0.2118	0.1681	0.6565	0.0000	0.1486	-0.265464019851	-0
7	365	0.343599263952	0.236399984684	0.6747	0.4676	1.5423	0.0010	0.3104	0.444252054795	(

10
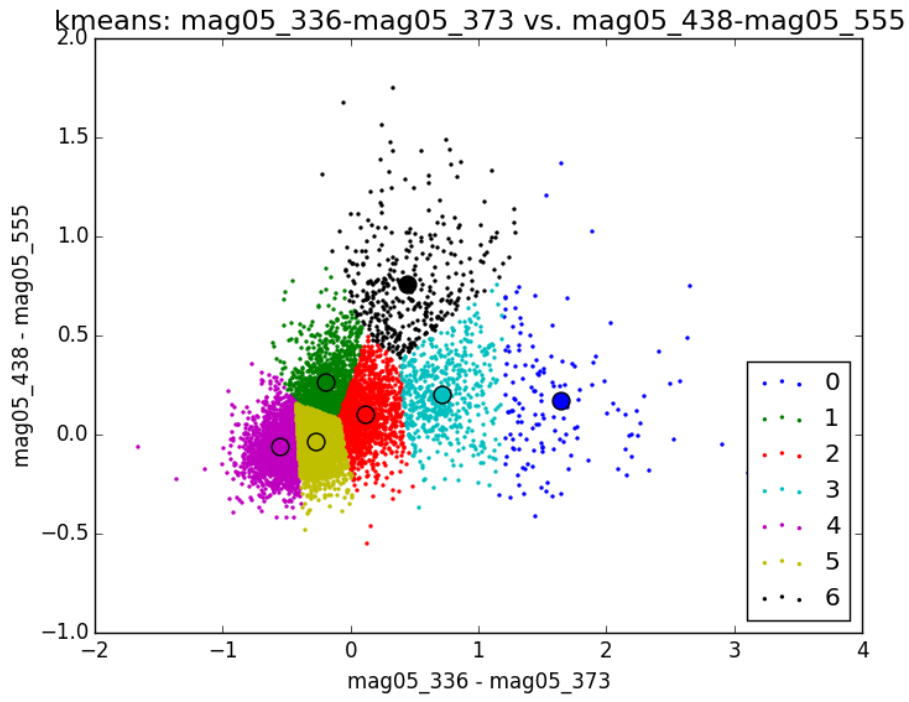
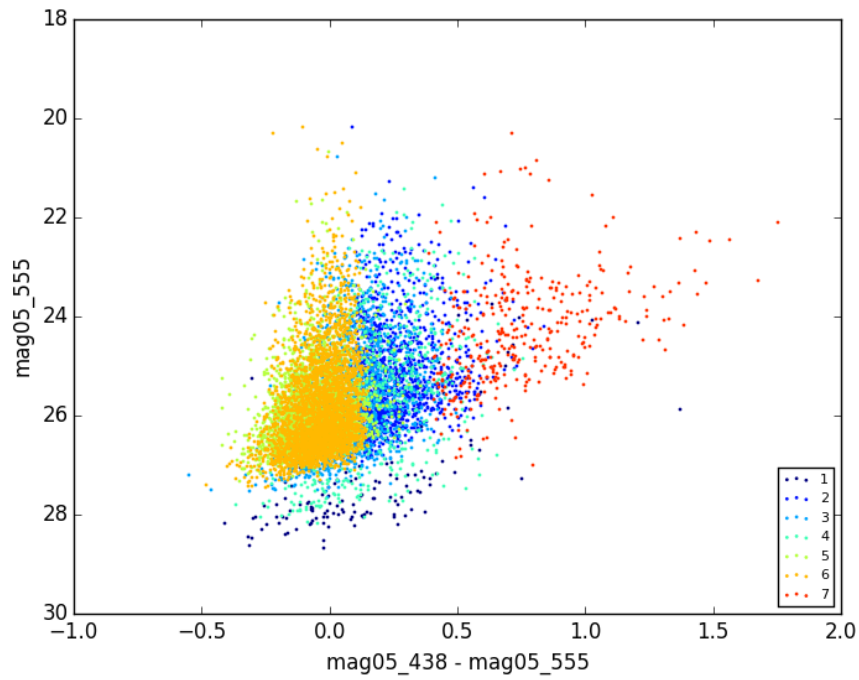Figure 14: kmeans_col_7cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

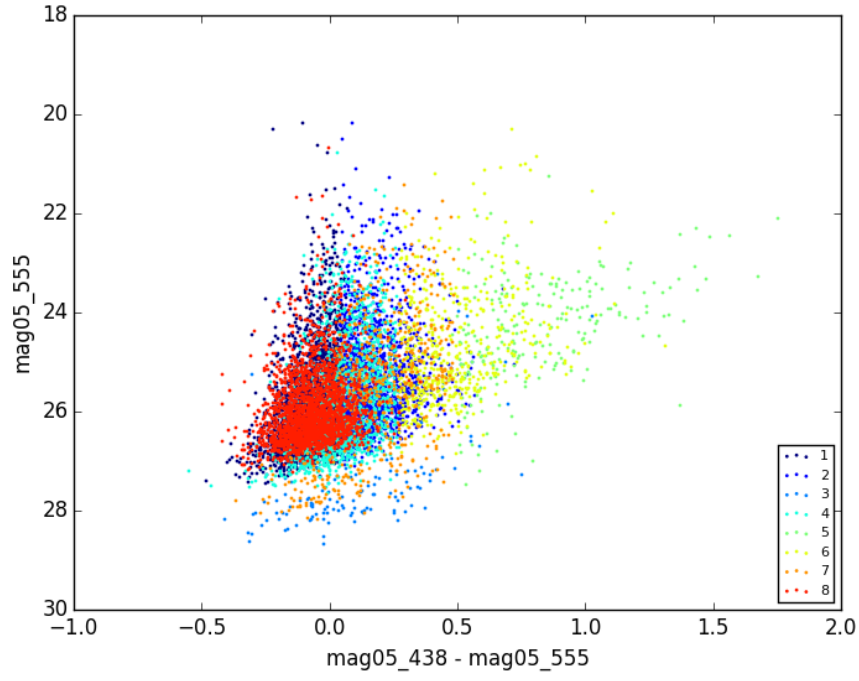Figure 15: kmeans_CMD_7cl_mag05_438-mag05_555vsmag05_555.png

Figure 16: kmeans_CMD_8cl_mag05_438-mag05_555vsmag05_555.png

kmeans results, Ncl=8

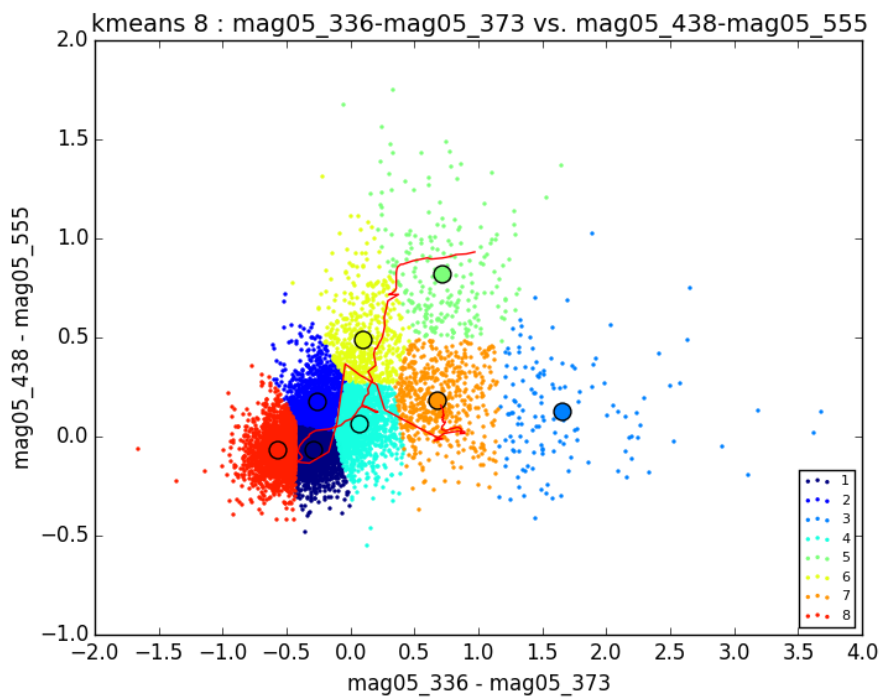| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	2356	0.341088235411	0.359435781719	0.2266	0.1540	0.5869	0.0000	0.1398	-0.28769057725	-(
2	1503	0.341088235411	0.298355490601	0.2440	0.1798	0.7804	0.0010	0.2401	-0.260610113107	(
3	139	0.341088235411	0.360371754107	1.2369	0.6196	2.5507	0.0040	0.8554	1.65938848921	(
4	1315	0.341088235411	0.332563442002	0.1393	0.2152	0.8312	0.0000	0.1218	0.0756653992395	0
5	225	0.341088235411	0.249384417017	0.8159	0.4679	1.7322	0.0020	0.2746	0.71624	
6	520	0.341088235411	0.299780784635	0.3887	0.2864	1.1850	0.0010	0.2531	0.101992307692	(
7	557	0.341088235411	0.375532924492	0.5326	0.3305	0.9998	0.0010	0.3114	0.681547576302	
8	2042	0.341088235411	0.366777624396	0.4175	0.1853	1.2655	0.0000	0.2712	-0.566340352595	-

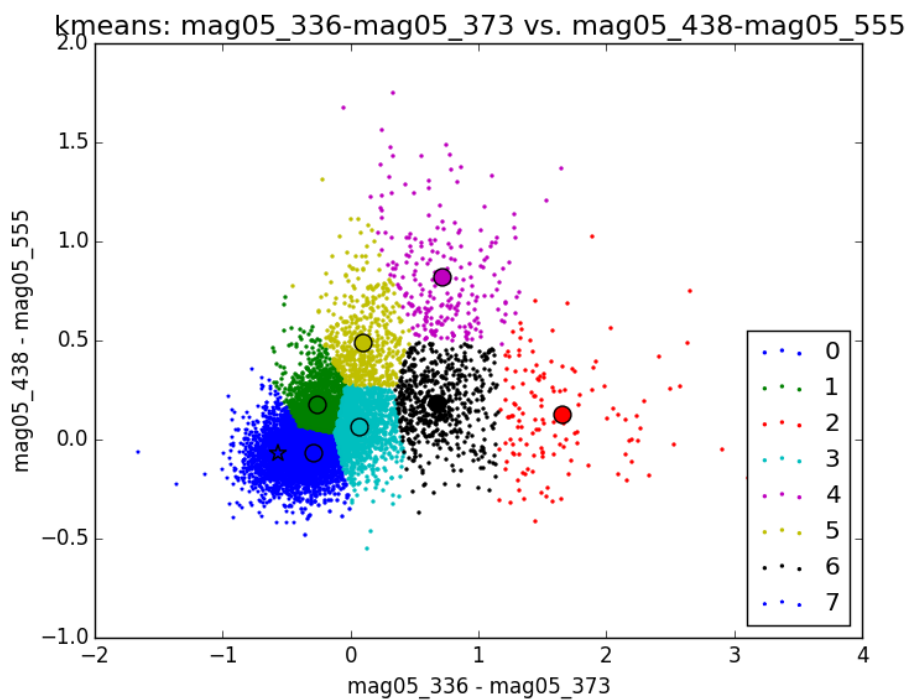Figure 17: kmeans_color_8cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

Figure 18: kmeans_col_8cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

Meanshift results

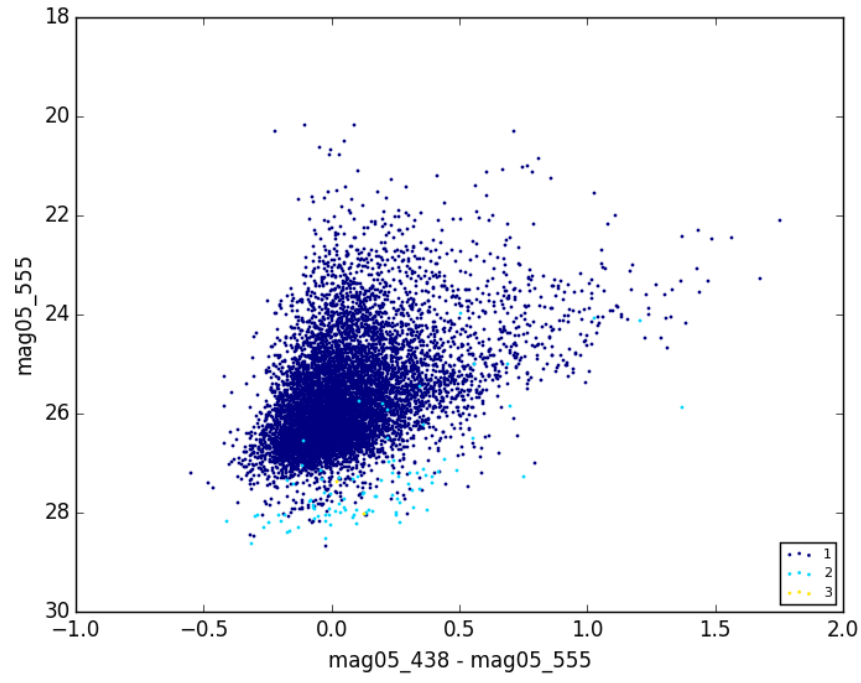| Bandw	Nclust	score	TotObj	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10
0.3557	6	0.325389499955	8657	8250	185	181	35	4	2	0	0	0	0
0.3000	13	0.478652912571	8657	7740	641	168	44	31	13	5	4	4	2
0.3300	8	0.48408828051	8657	8213	233	186	10	6	4	3	2	0	0
0.3500	7	0.324270102216	8657	8249	185	178	35	5	3	2	0	0	0
0.3800	5	0.331729480129	8657	8282	317	36	20	2	0	0	0	0	0
0.3950	3	0.714050744482	8657	8561	94	2	0	0	0	0	0	0	0

Figure 19: meanshift_CMD_3cl_mag05_438-mag05_555vsmag05_555.png

meanshift results, Ncl=3

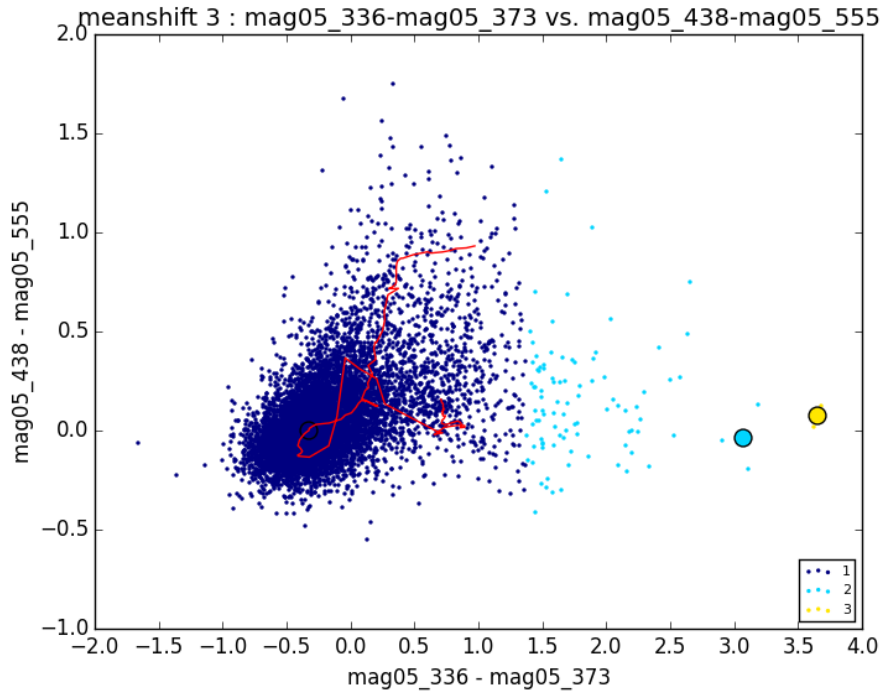| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	8561	0.714050744482	0.715174336706	0.3439	0.5090	3.1723	0.0000	0.3399	-0.324131459948	-0
2	94	0.714050744482	0.607009950719	1.3245	0.6024	2.1397	0.0040	0.8952	3.068	-(
3	2	0.714050744482	0.935431536319	2.5829	0.1214	0.1214	0.1214	1.7895	3.6515	

Figure 20: meanshift_color_3cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

meanshift results, Ncl=5

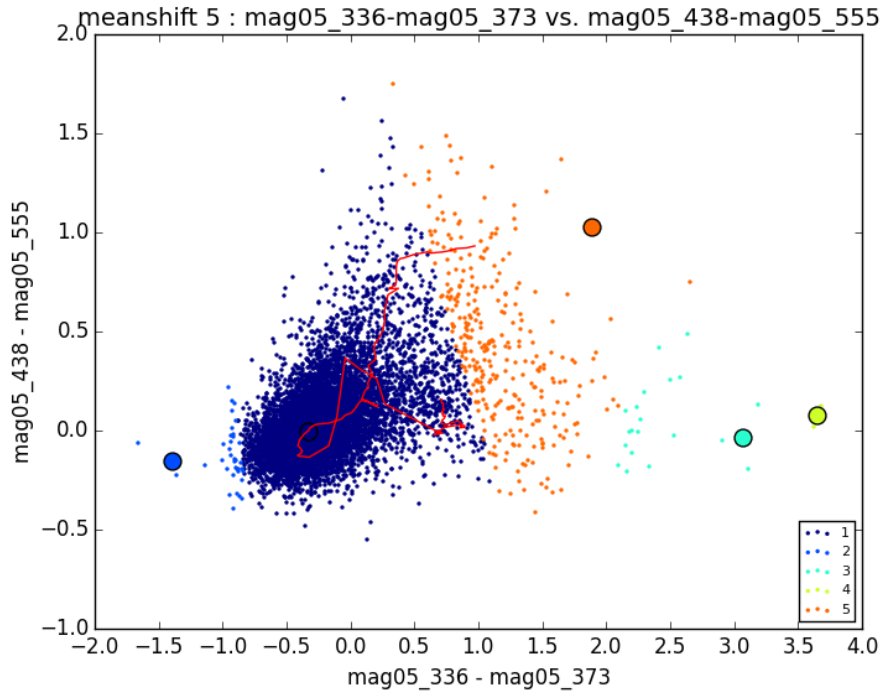| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	8282	0.331729480129	0.325026464051	0.3138	0.4550	2.2474	0.0000	0.3049	-0.329360457408	-0
2	36	0.331729480129	0.713403535731	0.6919	0.2353	0.8592	0.0085	0.4354	-1.387	-
3	20	0.331729480129	0.537556637971	1.7309	0.4535	1.1411	0.0221	1.2131	3.068	-(
4	2	0.331729480129	0.902829094793	2.5829	0.1214	0.1214	0.1214	1.7895	3.6515	
5	317	0.331729480129	0.446919924216	0.9481	0.6348	2.5253	0.0020	0.513	1.895	

Figure 21: meanshift_color_5cl_mag05_336-mag05_373vsmag05_438-mag05_555.png
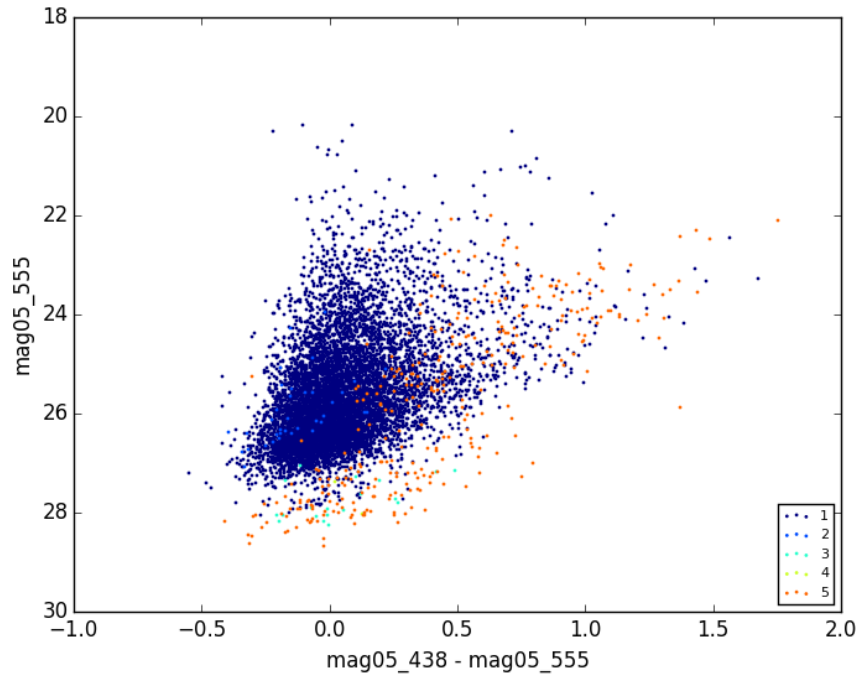

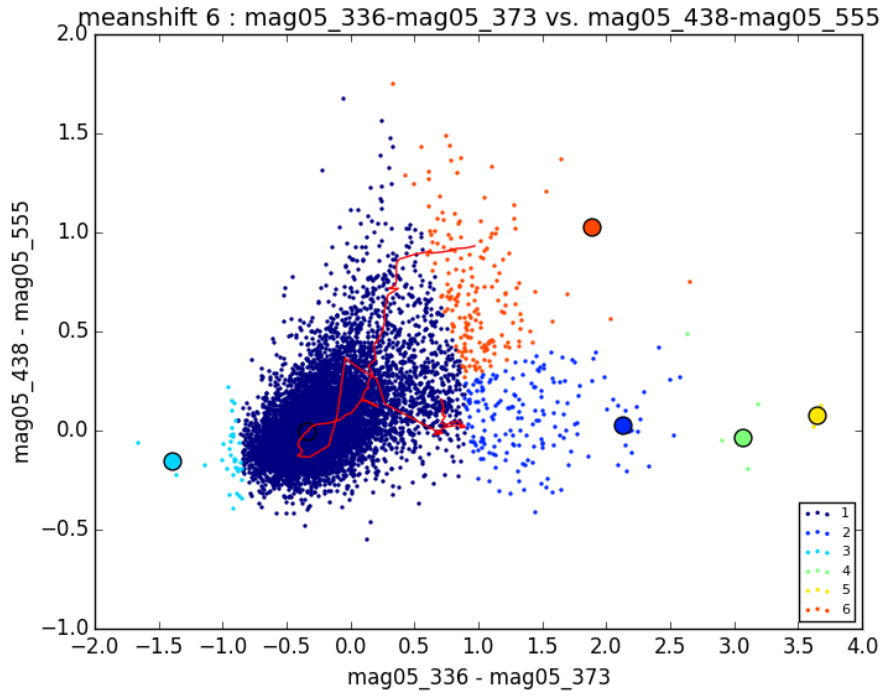Figure 22: meanshift_CMD_5cl_mag05_438-mag05_555vsmag05_555.png

Figure 23: meanshift_color_6cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

meanshift results, Ncl=6

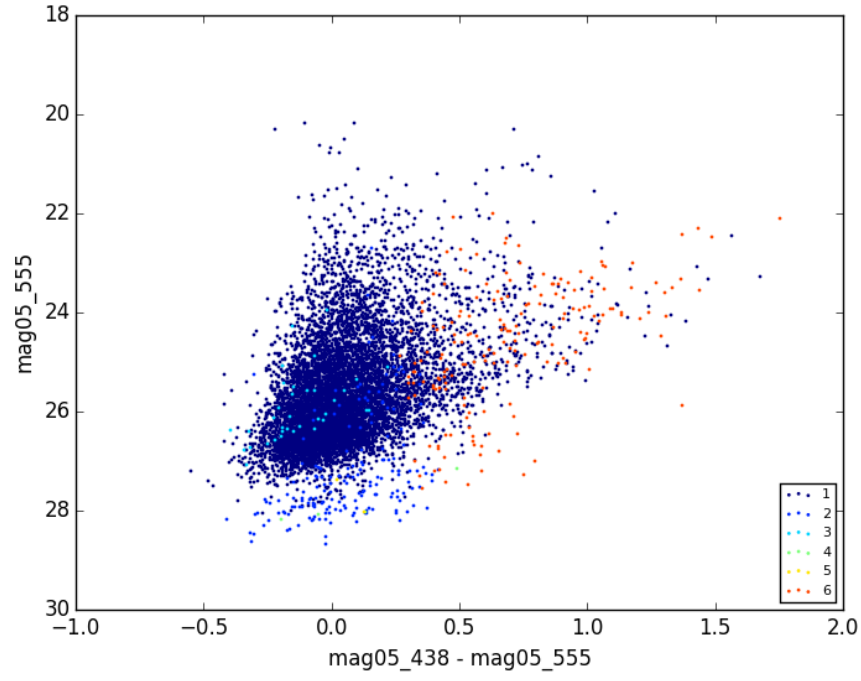| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	8250	0.325389499955	0.321424641356	0.3114	0.4491	2.2339	0.0000	0.3018	-0.335850942417	-0
2	181	0.325389499955	0.329969149448	1.0317	0.5203	1.6873	0.0028	0.7302	2.13483333333	0
3	35	0.325389499955	0.709313326984	0.6940	0.2380	0.8592	0.0085	0.4383	-1.387	-
4	4	0.325389499955	0.279036300817	2.1075	0.5023	0.8293	0.2462	1.4522	3.068	-0
5	2	0.325389499955	0.83397871687	2.5829	0.1214	0.1214	0.1214	1.7895	3.6515	
6	185	0.325389499955	0.420589863754	0.9013	0.4785	2.5253	0.0020	0.3164	1.895	

18

Figure 24: meanshift_CMD_6cl_mag05_438-mag05_555vsmag05_555.png

meanshift results, Ncl=7

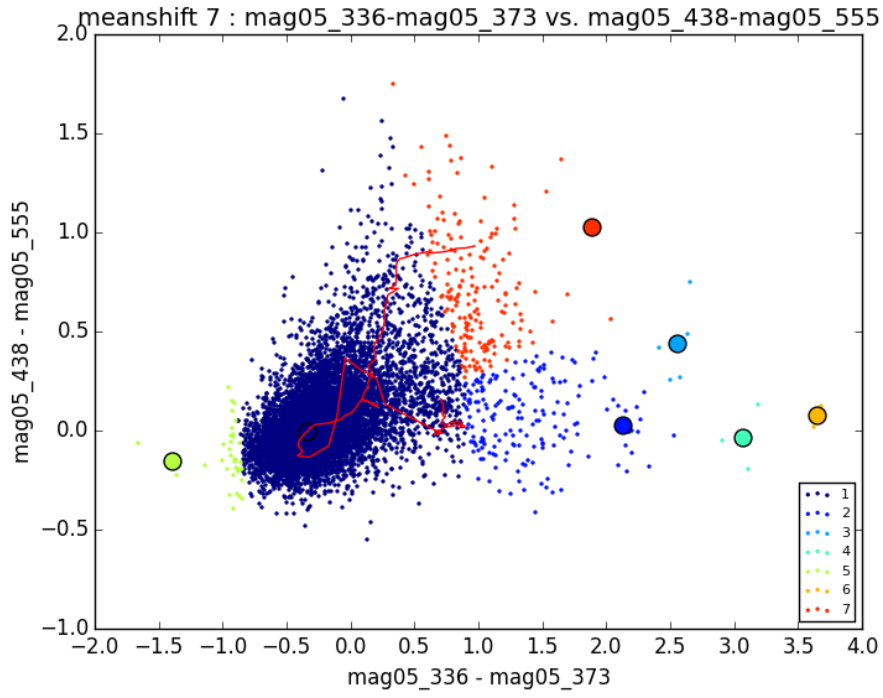| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	8249	0.324270102216	0.320240432356	0.3113	0.4489	2.2339	0.0000	0.3017	-0.337332925551	-0
2	178	0.324270102216	0.318236344541	1.0143	0.4981	1.6435	0.0028	0.717	2.13483333333	0
3	5	0.324270102216	0.602628890461	1.8393	0.2913	0.5196	0.0867	1.0699	2.5564	
4	3	0.324270102216	0.441125486075	2.1733	0.3076	0.3388	0.2462	1.5578	3.068	-0
5	35	0.324270102216	0.709267045906	0.6940	0.2380	0.8592	0.0085	0.4383	-1.387	-
6	2	0.324270102216	0.800478343455	2.5829	0.1214	0.1214	0.1214	1.7895	3.6515	
7	185	0.324270102216	0.422351647797	0.8914	0.4649	2.0744	0.0020	0.3022	1.895	

Figure 25: meanshift_color_7cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

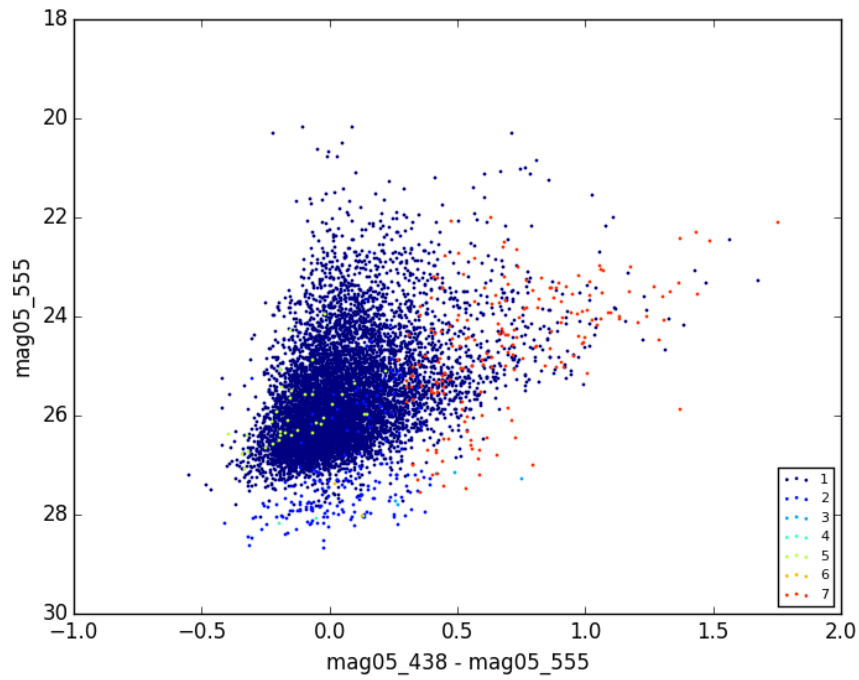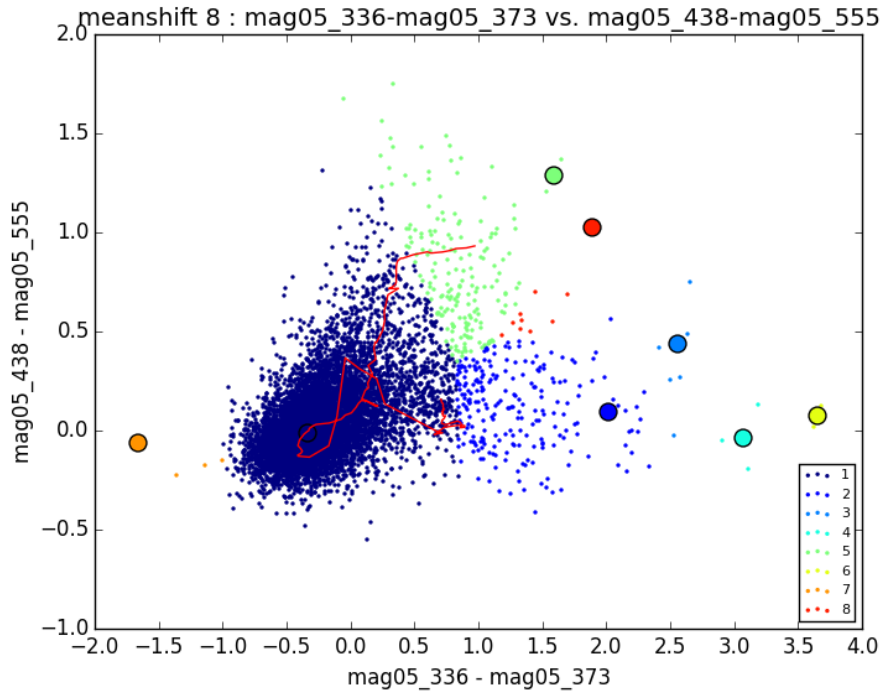Figure 26: meanshift_CMD_7cl_mag05_438-mag05_555vsmag05_555.png

20

Figure 27: meanshift_color_8cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

meanshift results, Ncl=8

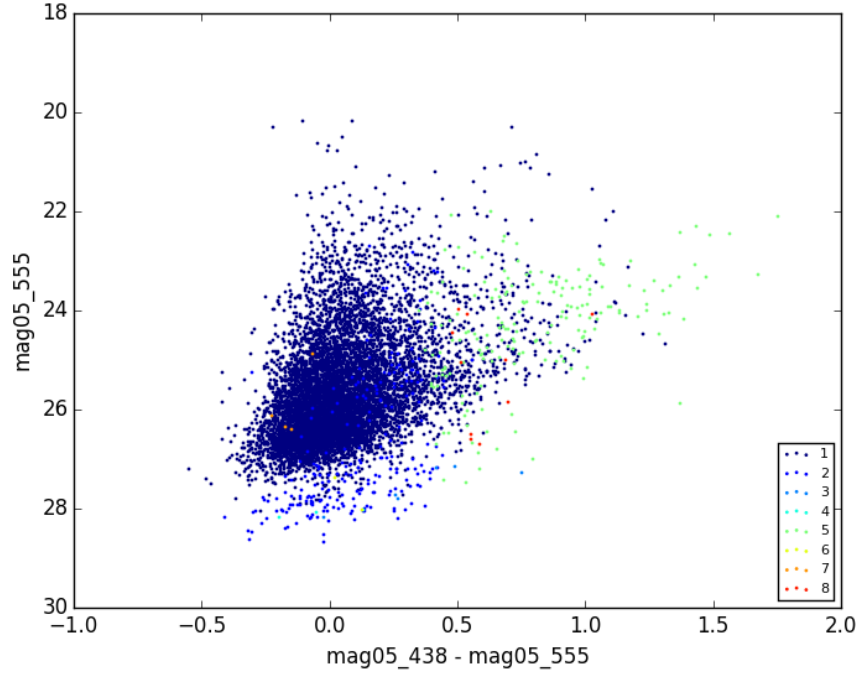| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	8213	0.48408828051	0.497346289413	0.3078	0.4396	1.9429	0.0000	0.2961	-0.338523679417	-0.0
2	233	0.48408828051	0.166866801885	0.9521	0.5036	1.5743	0.0028	0.6513	2.01408333333	0.0
3	6	0.48408828051	0.492126729729	1.8305	0.3497	0.7835	0.0867	1.1103	2.5564	
4	3	0.48408828051	0.430424087849	2.1733	0.3076	0.3388	0.2462	1.5578	3.068	-0.0
5	186	0.48408828051	0.287224037866	0.8605	0.4723	1.7322	0.0020	0.2761	1.5915	
6	2	0.48408828051	0.800478343455	2.5829	0.1214	0.1214	0.1214	1.7895	3.6515	
7	4	0.48408828051	0.64999012509	0.9363	0.3782	0.6645	0.1448	0.5965	-1.659	
8	10	0.48408828051	0.529858371659	1.1260	0.3084	0.8951	0.0328	0.454	1.895	

Figure 28: meanshift_CMD_8cl_mag05_438-mag05_555vsmag05_555.png

meanshift results, Ncl=13

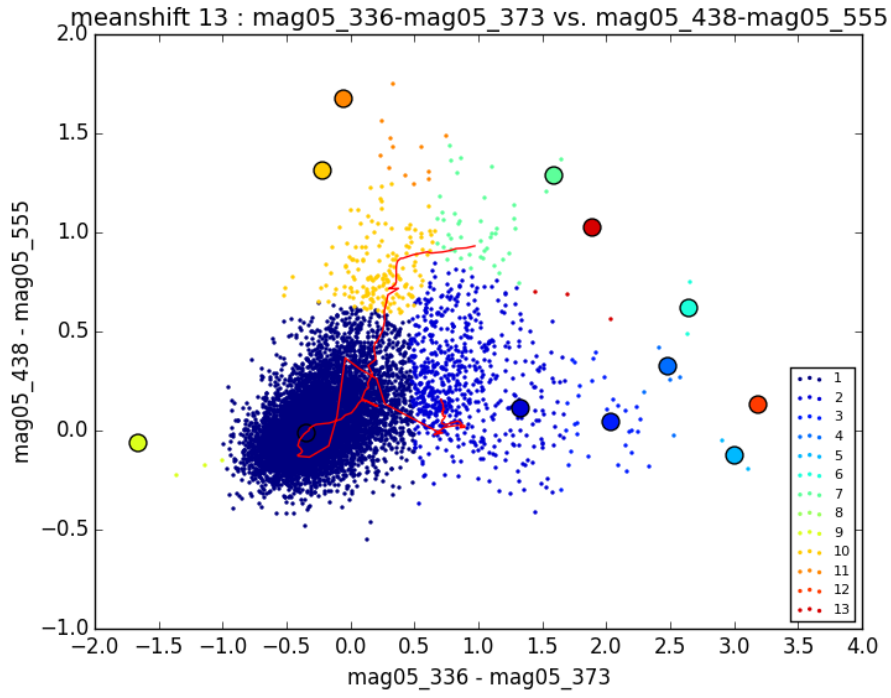| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	7740	0.478652912571	0.495514811278	0.2888	0.3777	1.6604	0.0000	0.2642	-0.342505367948	-0
2	641	0.478652912571	0.298129066197	0.6805	0.4649	1.4772	0.0010	0.3994	1.33177631579	0
3	31	0.478652912571	0.284267194372	1.4008	0.3599	0.8086	0.0221	0.9723	2.03247619048	0.
4	5	0.478652912571	0.348241203208	1.7531	0.2579	0.4523	0.0867	1.127	2.4854	
5	2	0.478652912571	0.272267605737	2.1295	0.2462	0.2462	0.2462	1.5669	3.0065	
6	2	0.478652912571	0.386267547586	1.9236	0.2626	0.2626	0.2626	1.017	2.6455	
7	44	0.478652912571	0.396857959193	1.0268	0.3536	1.0548	0.0144	0.2017	1.5915	
8	2	0.478652912571	0.739711299039	2.5829	0.1214	0.1214	0.1214	1.7895	3.6515	
9	4	0.478652912571	0.63234486565	0.9363	0.3782	0.6645	0.1448	0.5965	-1.659	
10	168	0.478652912571	0.454099202888	0.6236	0.3337	1.2247	0.0020	0.3486	-0.222	
11	13	0.478652912571	0.491143751061	1.0666	0.3285	0.8310	0.0391	0.5483	-0.057	
12	1	0.478652912571	0.0	N/A	N/A	N/A	N/A	1.529	3.191	
13	4	0.478652912571	0.324561733808	1.3703	0.4432	0.6076	0.2601	0.5494	1.895	

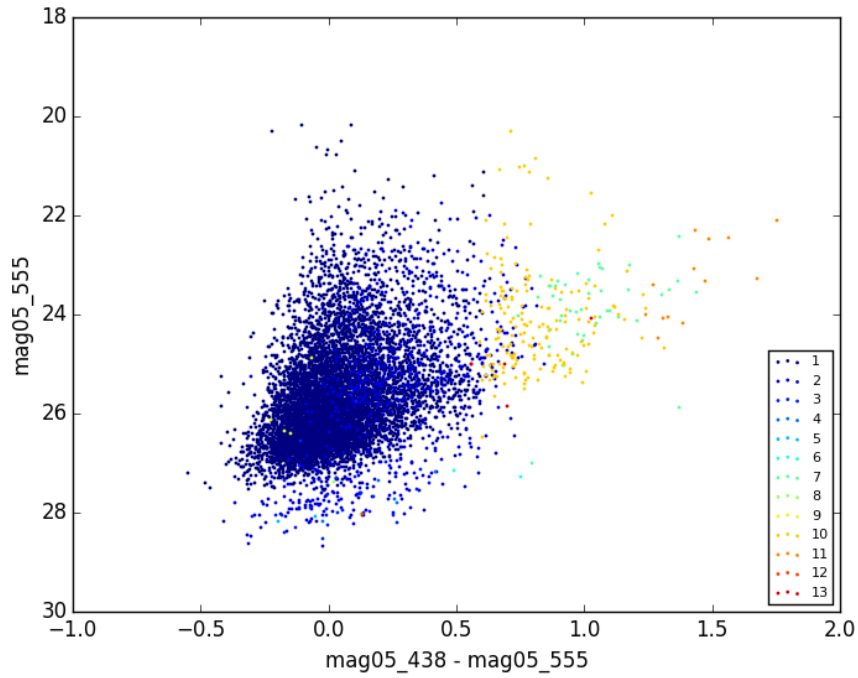Figure 29: meanshift_color_13cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

Figure 30: meanshift_CMD_13cl_mag05_438-mag05_555vsmag05_555.png

23