Clustering output, found in/home/pauline/Research/m83_clustering/results/broad_narrow/U_OII/clustering/mag05_336-mag05_373_mag05_373-mag05_438_mag05_373-mag05_814

K-means results

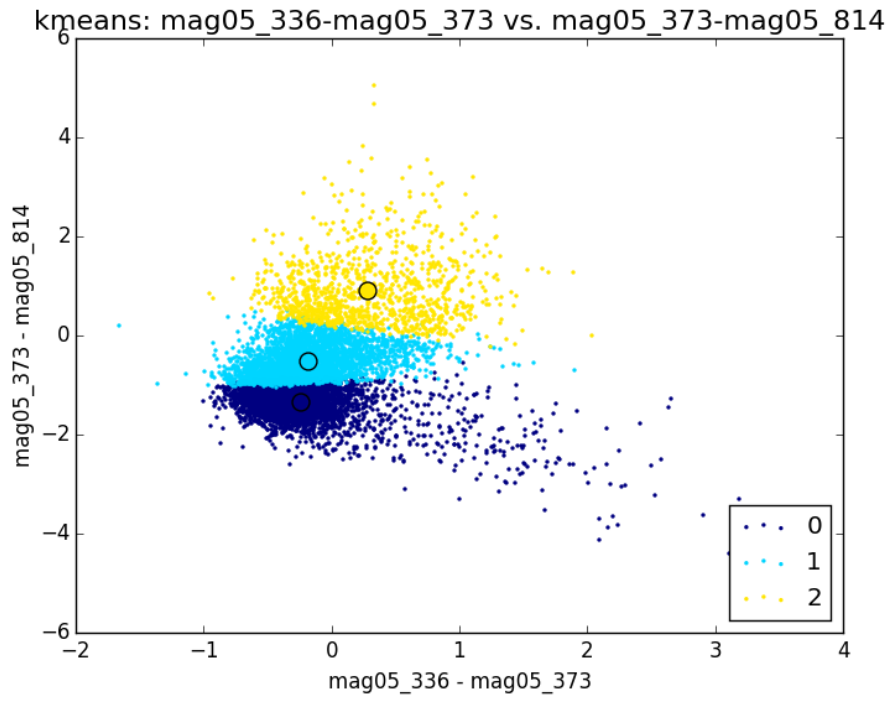| Nclust	inertia	score	TotObj	N1	N2	N3	N4	N5	N6	N7	N8
3	3531.25225217	0.356002333645	8558	4382	3114	1062	0	0	0	0	0
4	2566.79970092	0.421346070517	8558	4980	2447	879	252	0	0	0	0
5	2103.52601157	0.330184370381	8558	3200	3073	1534	534	217	0	0	0
6	1827.0372042	0.304933923809	8558	3059	2115	1835	1021	335	193	0	0
7	1646.58955842	0.308187960281	8558	2941	1923	1917	792	457	338	190	0
8	1503.03790624	0.290253888017	8558	2513	2278	1583	729	587	429	309	130

Figure 1: kmeans_3d_3cl_mag05_336-mag05_373vsmag05_373-mag05_814.png

kmeans results, Ncl=3

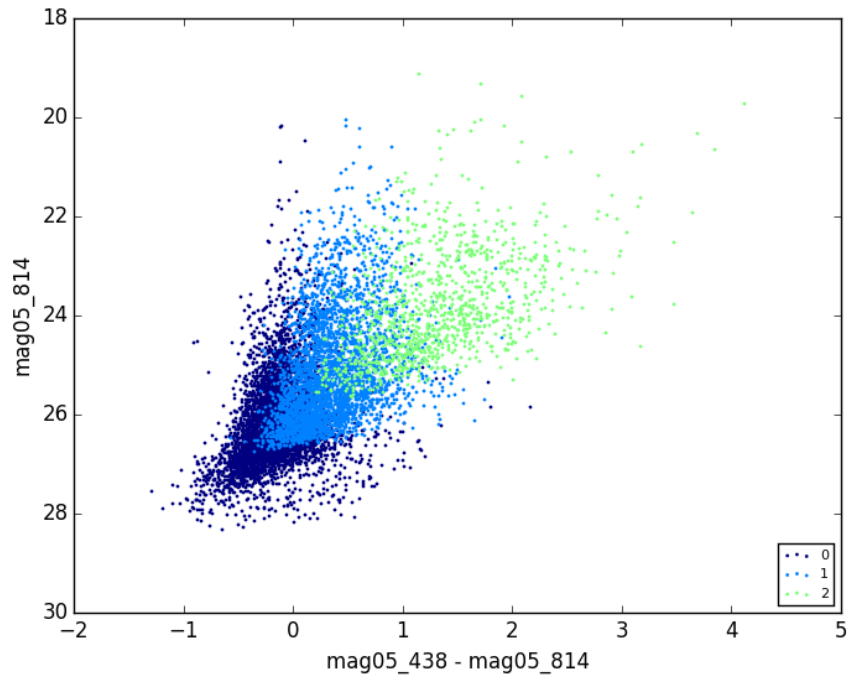| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	4382	0.356002333645	0.378226341357	1.1197	0.6594	7.7207	0.0014	0.62	-0.239799406664	-1
2	3114	0.356002333645	0.340350093249	0.6631	0.6428	4.1021	0.0042	0.4071	-0.184829158638	-0
3	1062	0.356002333645	0.310197695982	0.7938	1.1131	5.7709	0.0062	0.7502	0.283677966102	-0

Figure 2: kmeans_CMD_3cl_mag05_438-mag05_814vsmag05_814.png
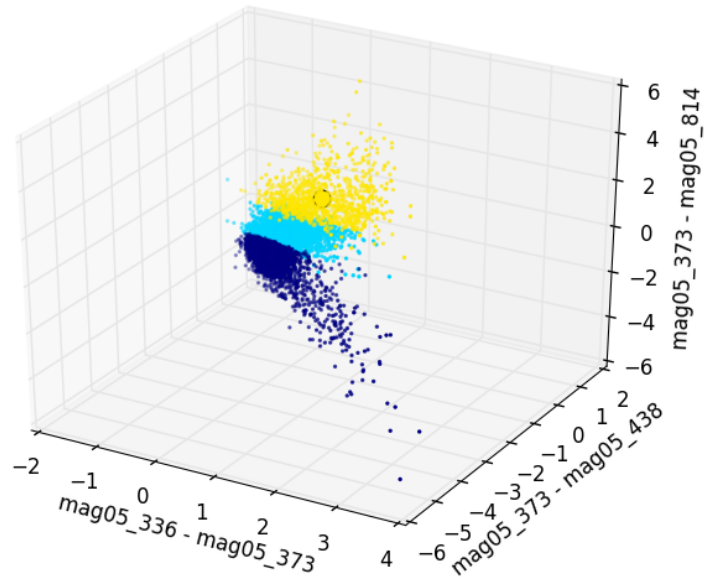

Figure 3: kmeans_3d_color_3cl_mag05_336-mag05_373vsmag05_373-mag05_438vsmag05_373-mag05_814.png
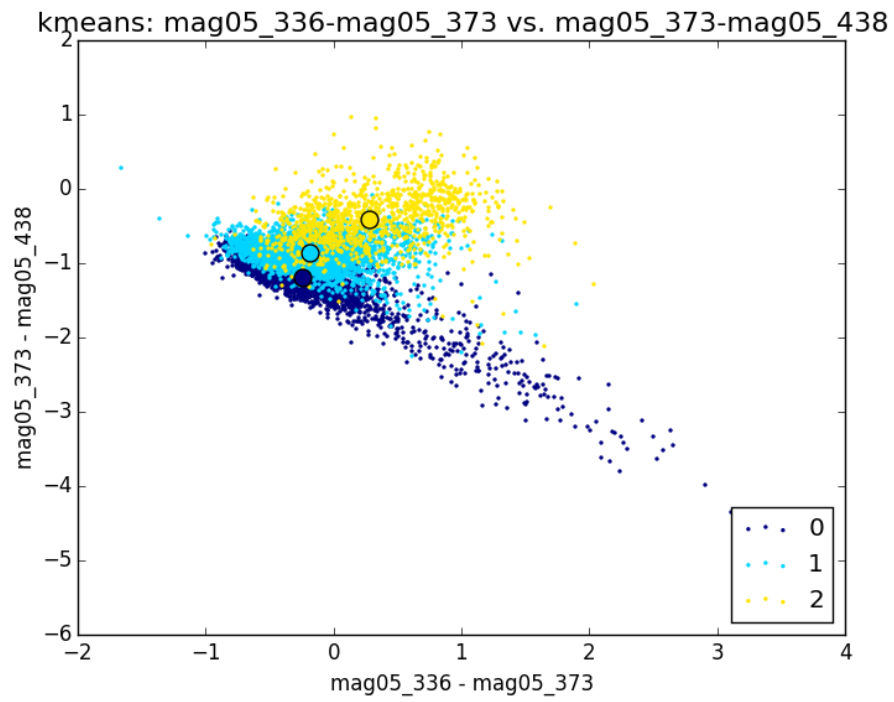
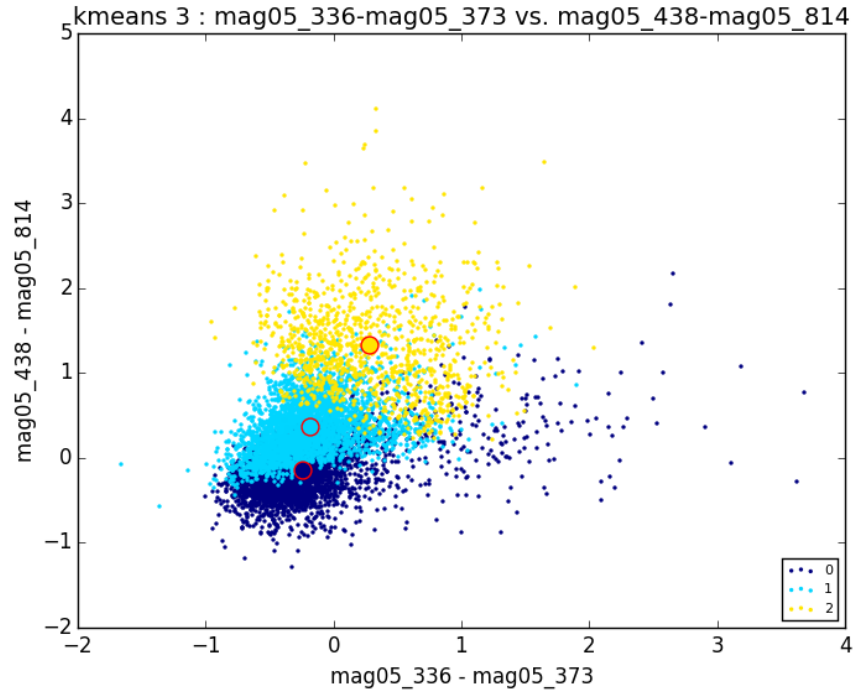Figure 4: kmeans_3d_3cl_mag05_336-mag05_373vsmag05_373-mag05_438.png

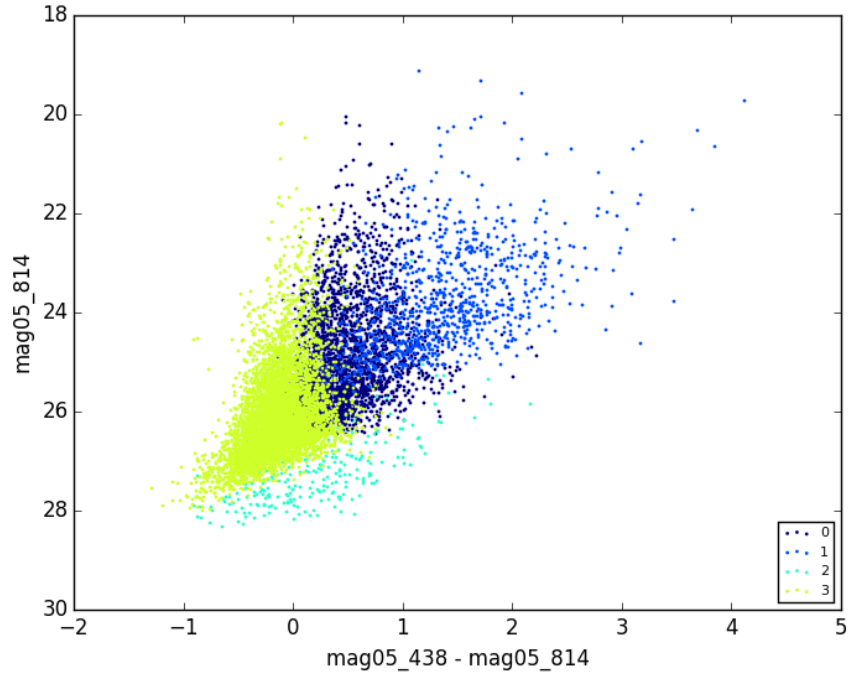Figure 5: kmeans_base_color_3cl_mag05_336-mag05_373vsmag05_438-mag05_814.png

Figure 6: kmeans_CMD_4cl_mag05_438-mag05_814vsmag05_814.png

kmeans results, Ncl=4

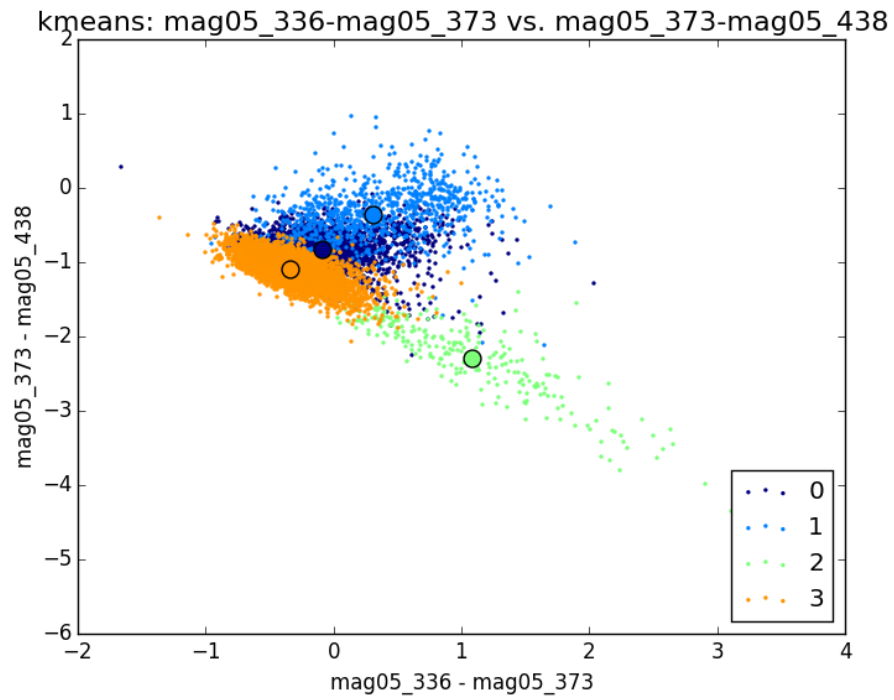| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	2447	0.421346070517	0.321956492505	0.6023	0.6653	4.0123	0.0055	0.4327	-0.0881990192072	-
2	879	0.421346070517	0.293342935353	0.8408	1.1140	5.2880	0.0062	0.7738	0.308106939704	-
3	252	0.421346070517	0.343335238321	2.0035	1.3032	6.4202	0.0301	1.6741	1.08459126984	
4	4980	0.421346070517	0.496723536966	1.0031	0.5239	2.5229	0.0014	0.465	-0.33201064257	

Figure 7: kmeans_3d_4cl_mag05_336-mag05_373vsmag05_373-mag05_438.png
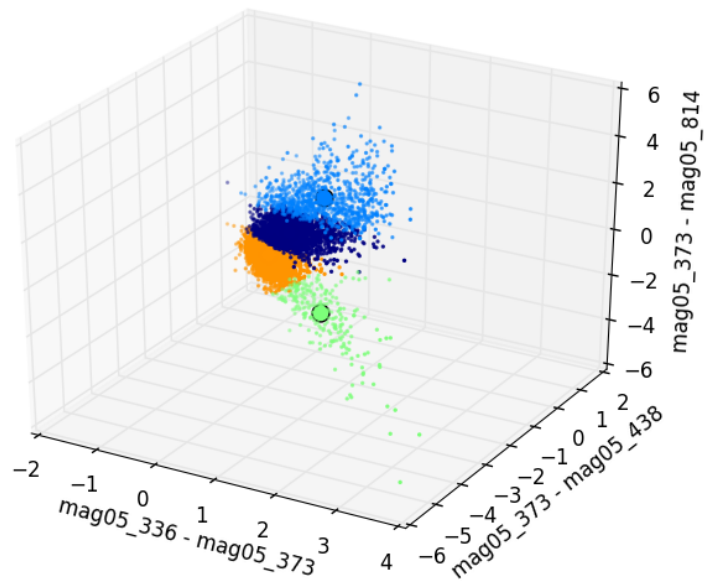

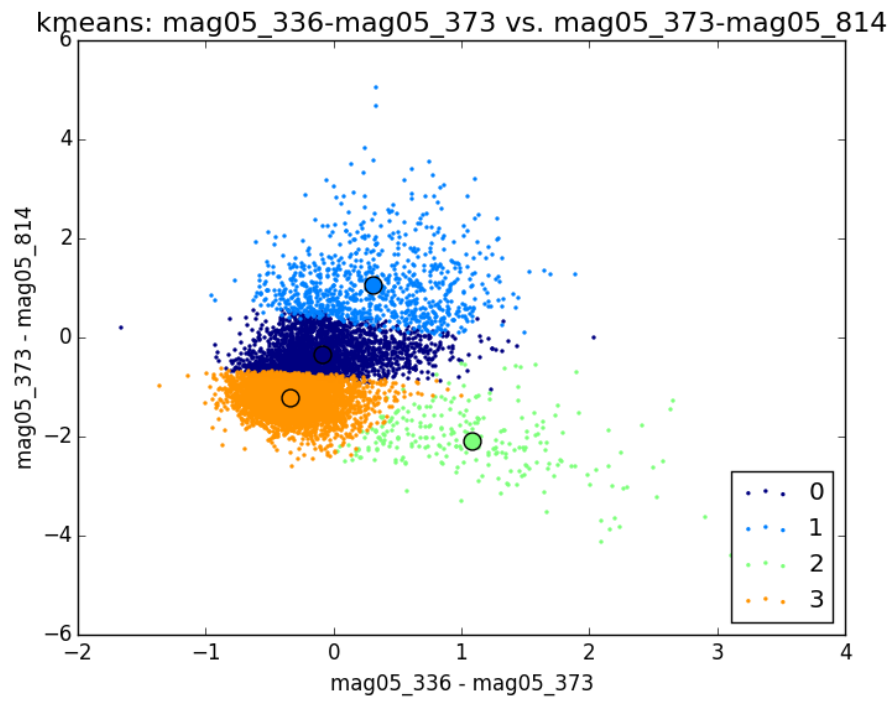Figure 8: kmeans_3d_color_4cl_mag05_336-mag05_373vsmag05_373-mag05_438vsmag05_373-mag05_814.png

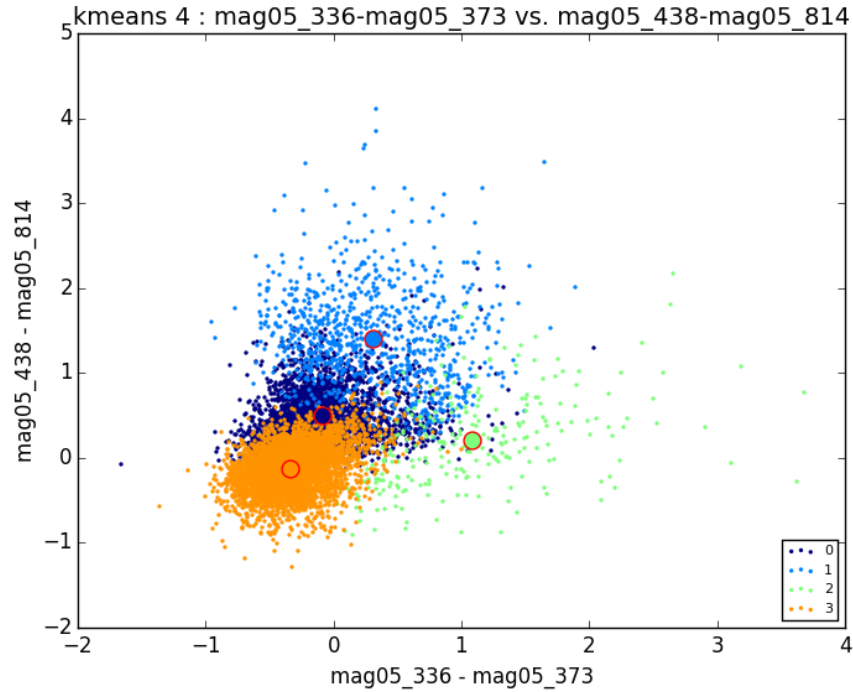Figure 9: kmeans_3d_4cl_mag05_336-mag05_373vsmag05_373-mag05_814.png

Figure 10: kmeans_base_color_4cl_mag05_336-mag05_373vsmag05_438-mag05_814.png
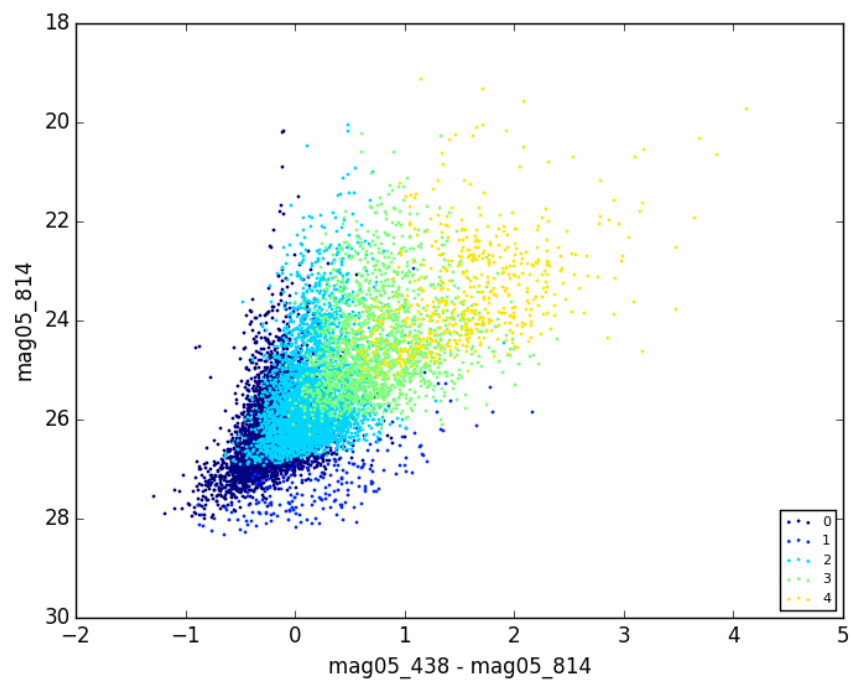
7

Figure 11: kmeans_CMD_5cl_mag05_438-mag05_814vsmag05_814.png

kmeans results, Ncl=5

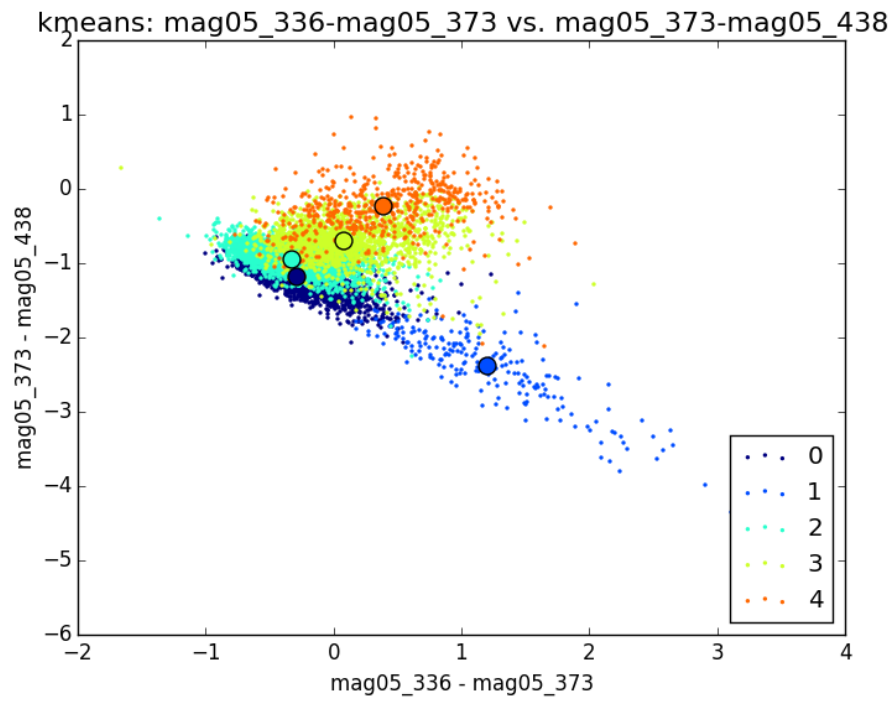| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	3073	0.330184370381	0.367688592691	1.1002	0.4708	2.3755	0.0014	0.5341	-0.286571428571	-
2	217	0.330184370381	0.348814565579	2.0737	1.3054	6.4202	0.0301	1.7557	1.20423502304	-
3	3200	0.330184370381	0.324946200058	0.7765	0.4771	2.7757	0.0022	0.3438	-0.3266584375	-
4	1534	0.330184370381	0.276799454366	0.5327	0.7441	4.0123	0.0088	0.4981	0.0846245110821	-0
5	534	0.330184370381	0.291535266798	0.9817	1.0957	5.0651	0.0062	0.8385	0.392724719101	-0

8

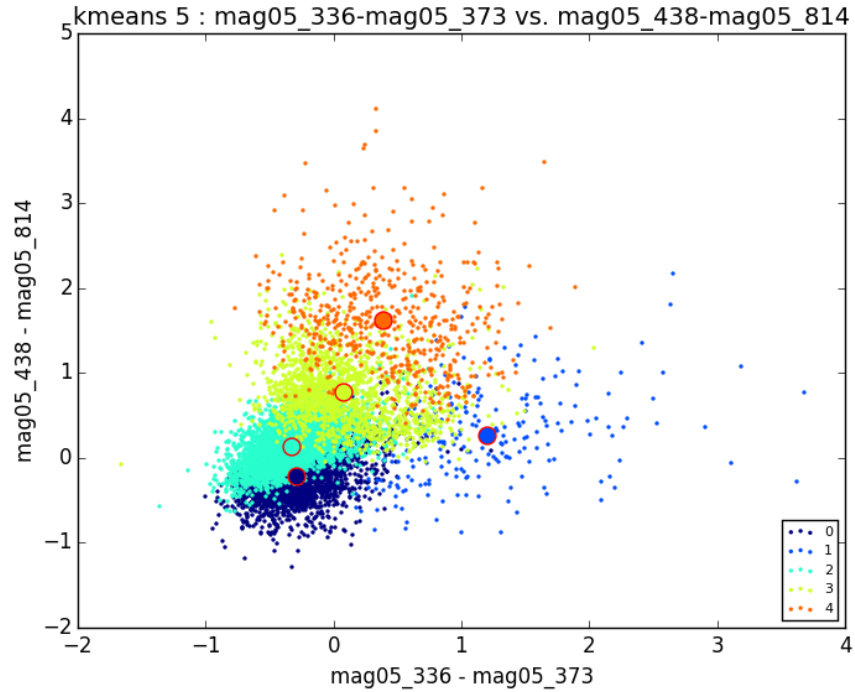Figure 12: kmeans_3d_5cl_mag05_336-mag05_373vsmag05_373-mag05_438.png

Figure 13: kmeans_base_color_5cl_mag05_336-mag05_373vsmag05_438-mag05_814.png
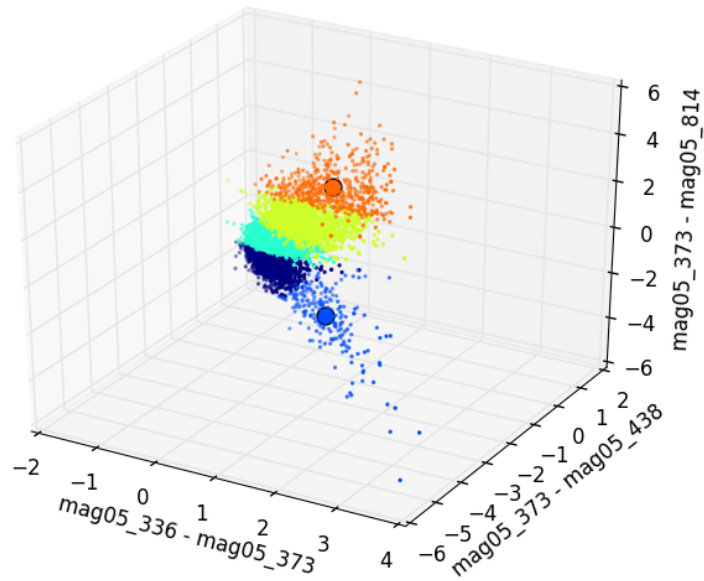
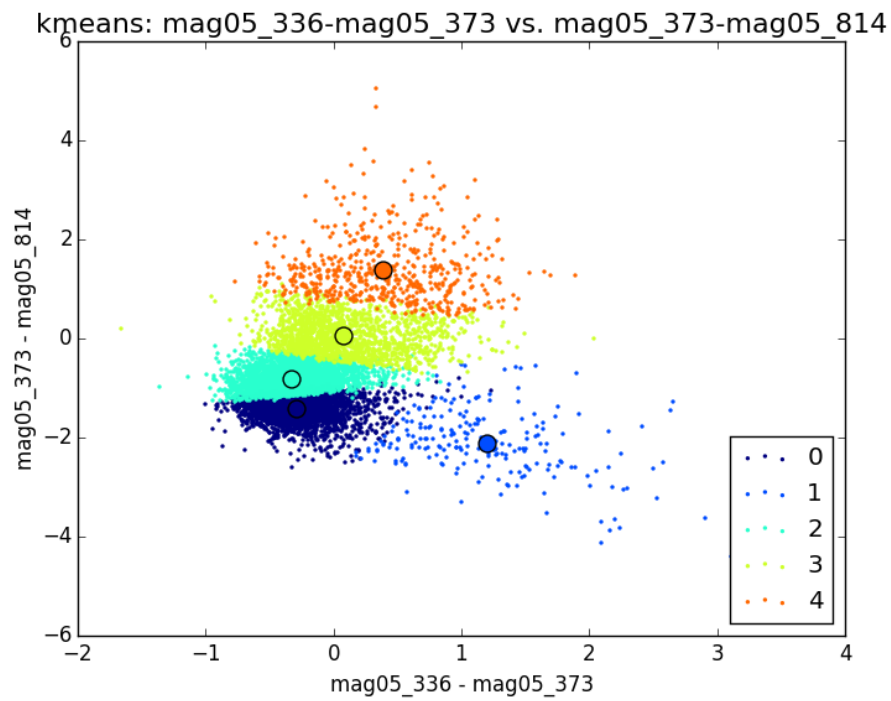Figure 14: kmeans_3d_color_5cl_mag05_336-mag05_373vsmag05_373-mag05_438vsmag05_373-mag05_814.png

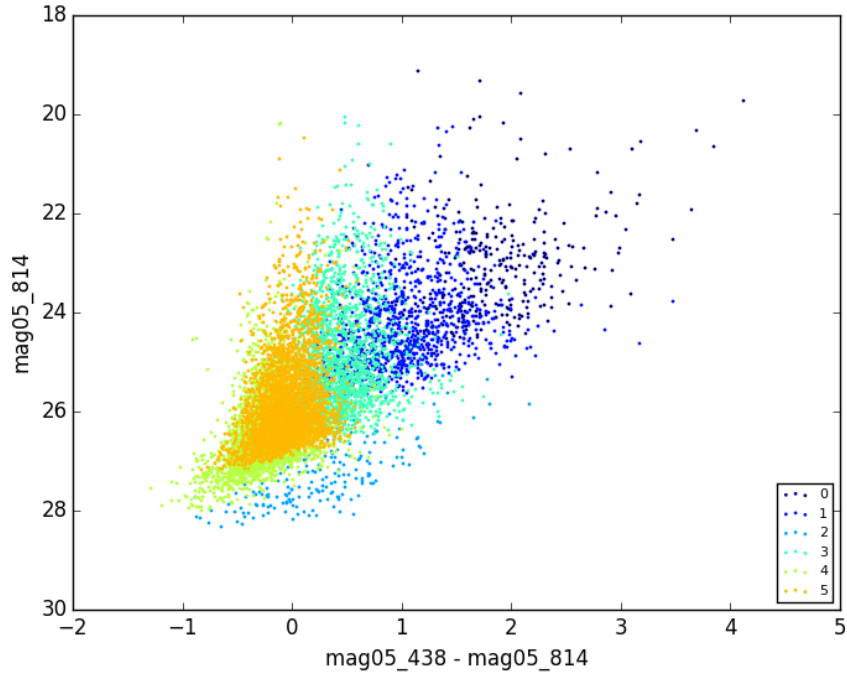Figure 15: kmeans_3d_5cl_mag05_336-mag05_373vsmag05_373-mag05_814.png

Figure 16: kmeans_CMD_6cl_mag05_438-mag05_814vsmag05_814.png

kmeans results, Ncl=6

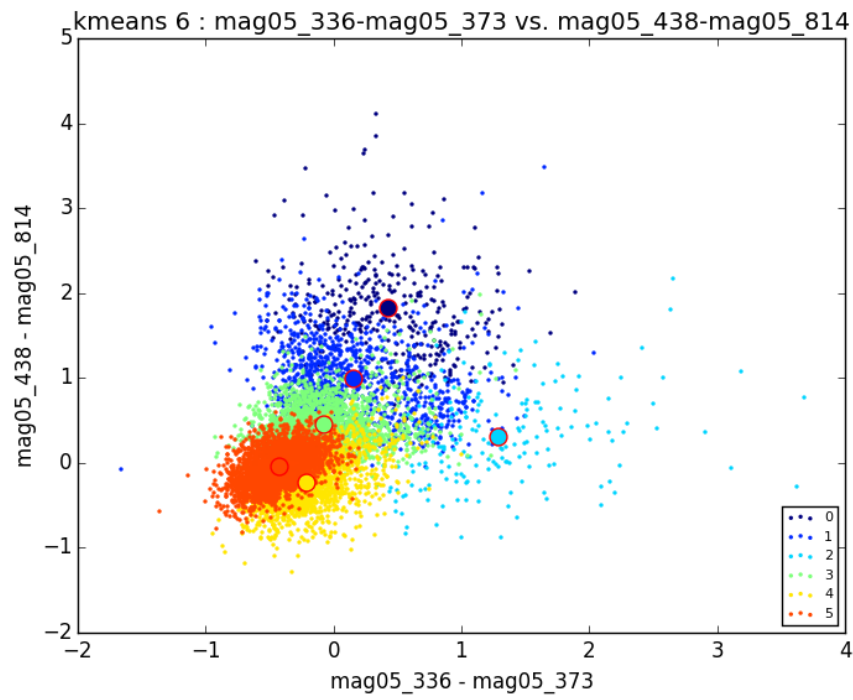| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	335	0.304933923809	0.307183760256	1.1215	1.0495	4.5275	0.0310	0.9028	0.433788059701	-
2	1021	0.304933923809	0.241874222703	0.5529	0.7936	4.2456	0.0062	0.5529	0.16225367287	-
3	193	0.304933923809	0.355652033173	2.1288	1.2970	6.3270	0.0301	1.8177	1.29341968912	
4	1835	0.304933923809	0.242769307746	0.6316	0.5637	2.6633	0.0055	0.4202	-0.0779073569482	-
5	2115	0.304933923809	0.285291187666	1.1587	0.4757	2.1096	0.0037	0.6041	-0.207240661939	-
6	3059	0.304933923809	0.373406667165	0.8769	0.3844	1.7293	0.0014	0.3251	-0.426423340961	-

11

Figure 17: kmeans_base_color_6cl_mag05_336-mag05_373vsmag05_438-mag05_814.png
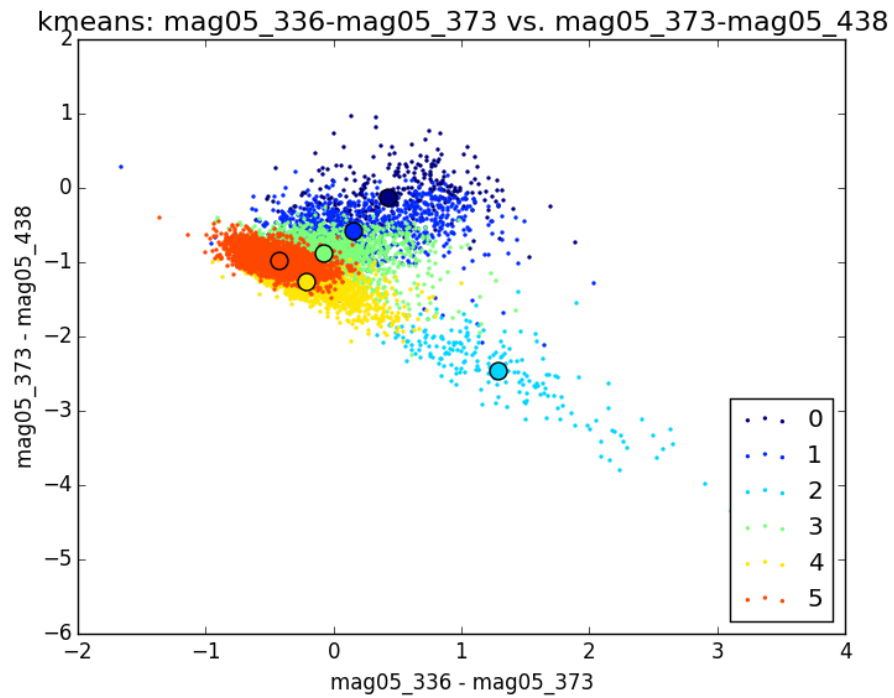

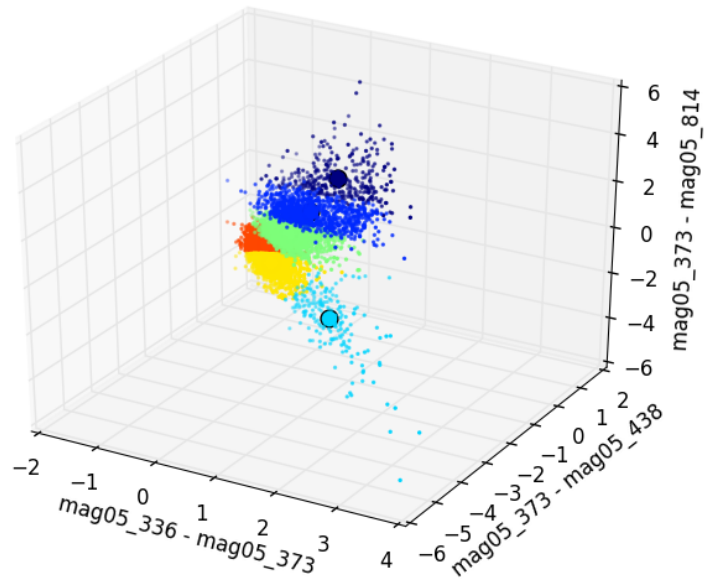Figure 18: kmeans_3d_6cl_mag05_336-mag05_373vsmag05_373-mag05_438.png

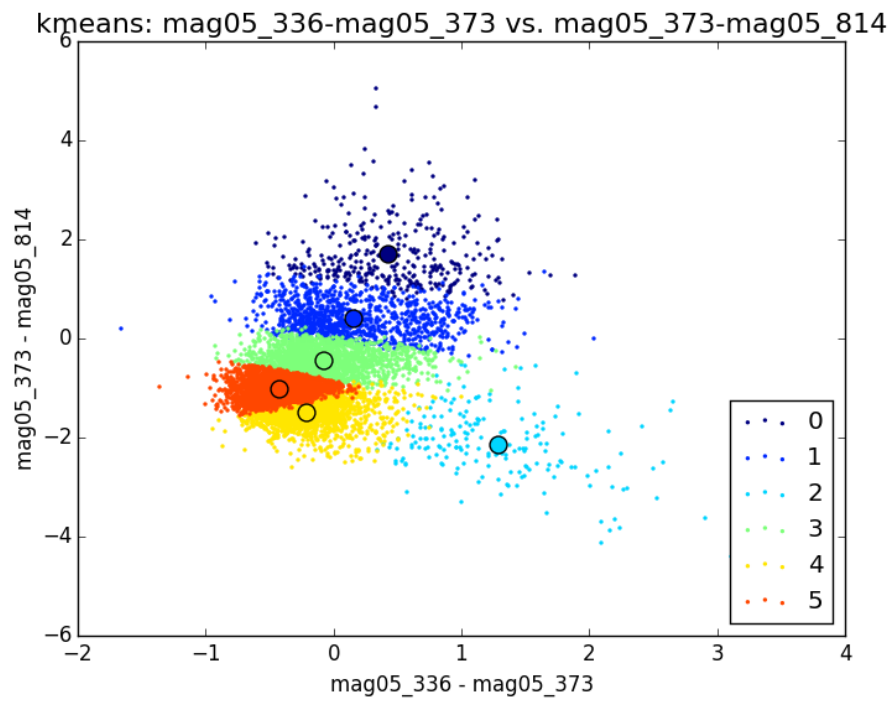Figure 19: kmeans_3d_color_6cl_mag05_336-mag05_373vsmag05_373-mag05_438vsmag05_373-mag05_814.png

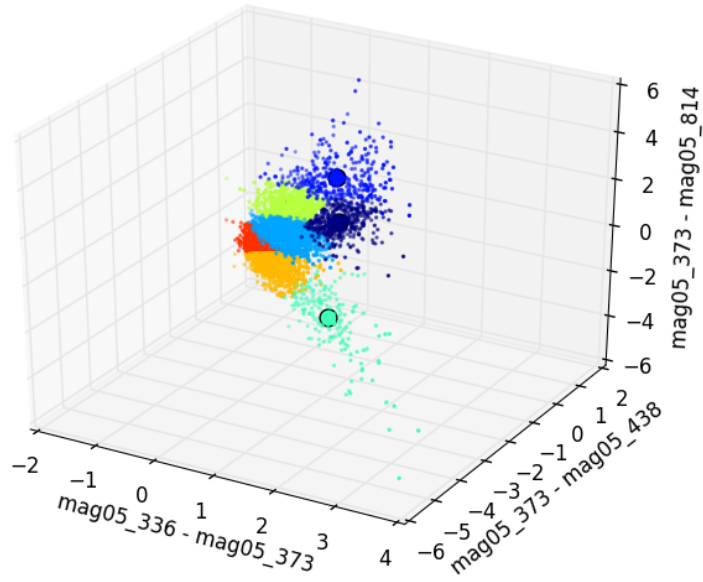Figure 20: kmeans_3d_6cl_mag05_336-mag05_373vsmag05_373-mag05_814.png

Figure 21: kmeans_3d_color_7cl_mag05_336-mag05_373vsmag05_373-mag05_438vsmag05_373-mag05_814.png

kmeans results, Ncl=7

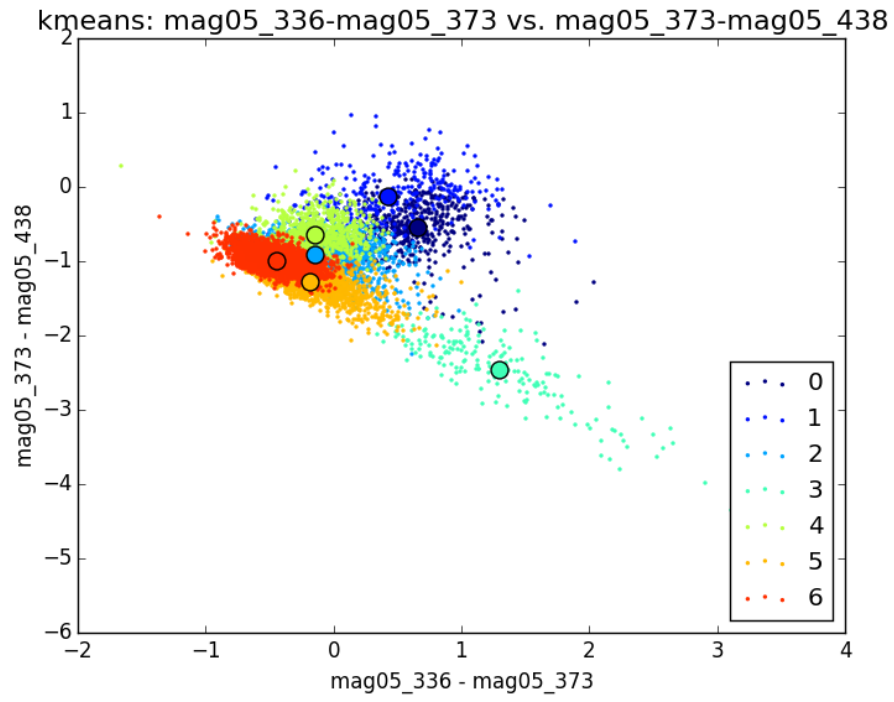| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	457	0.308187960281	0.236698213369	0.6094	0.7467	2.8472	0.0062	0.6028	0.659980306346	-0
2	338	0.308187960281	0.30342108757	1.1148	1.0351	4.4130	0.0310	0.898	0.430724852071	-0
3	1923	0.308187960281	0.248458940499	0.6586	0.5106	2.3957	0.0042	0.3922	-0.138340093604	-0
4	190	0.308187960281	0.353350024728	2.1372	1.2857	6.3270	0.0301	1.8232	1.29722105263	-2
5	792	0.308187960281	0.330759604599	0.5243	0.6059	2.5175	0.0088	0.5078	-0.138787878788	-0
6	1917	0.308187960281	0.264862551713	1.1702	0.4799	2.3915	0.0041	0.6223	-0.182110589463	-1
7	2941	0.308187960281	0.378143144245	0.9028	0.3684	1.6741	0.0014	0.3304	-0.439886773206	-0

14

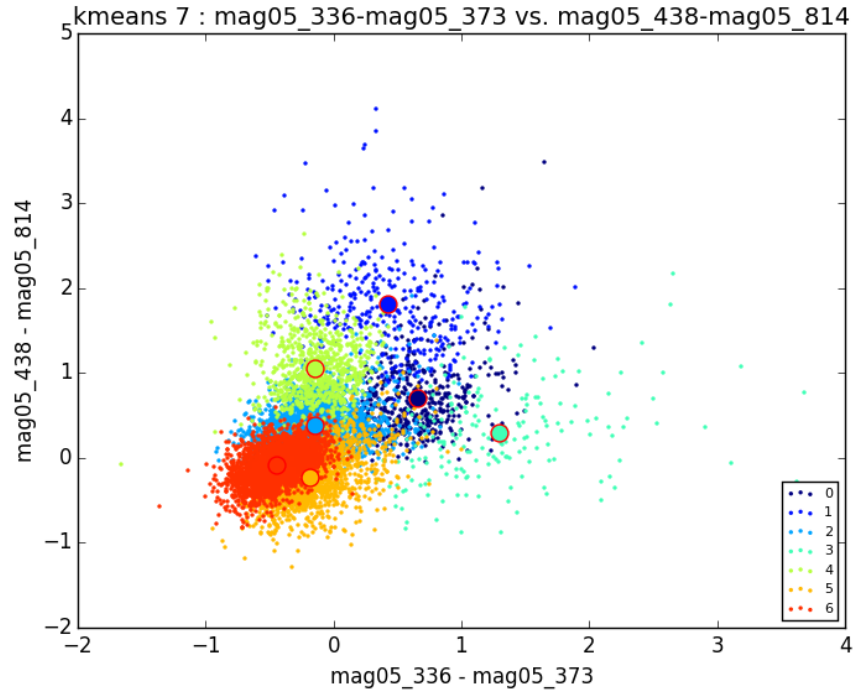Figure 22: kmeans_3d_7cl_mag05_336-mag05_373vsmag05_373-mag05_438.png

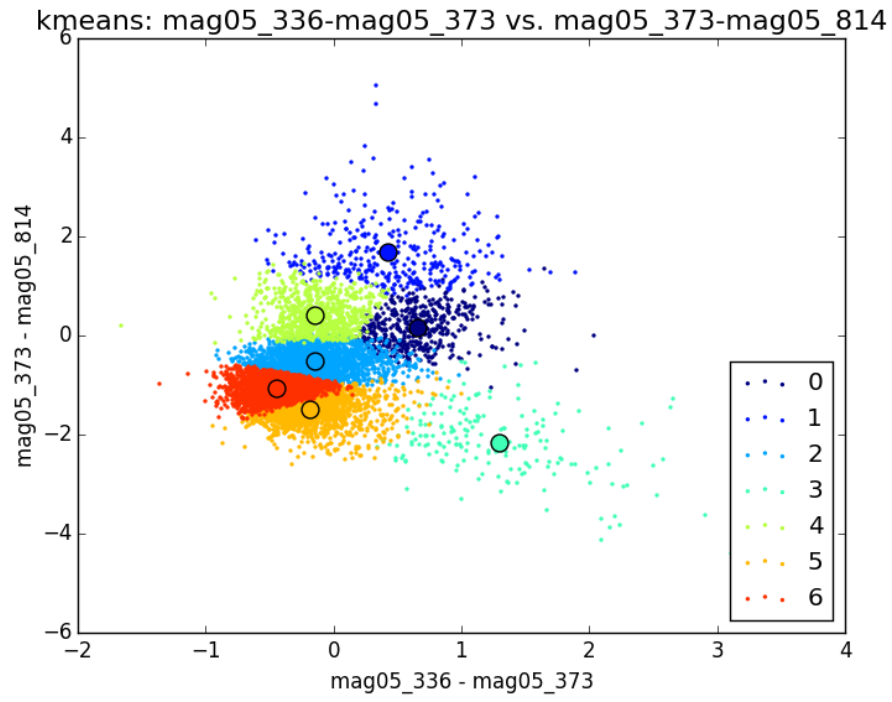Figure 23: kmeans_base_color_7cl_mag05_336-mag05_373vsmag05_438-mag05_814.png

Figure 24: kmeans_3d_7cl_mag05_336-mag05_373vsmag05_373-mag05_814.png
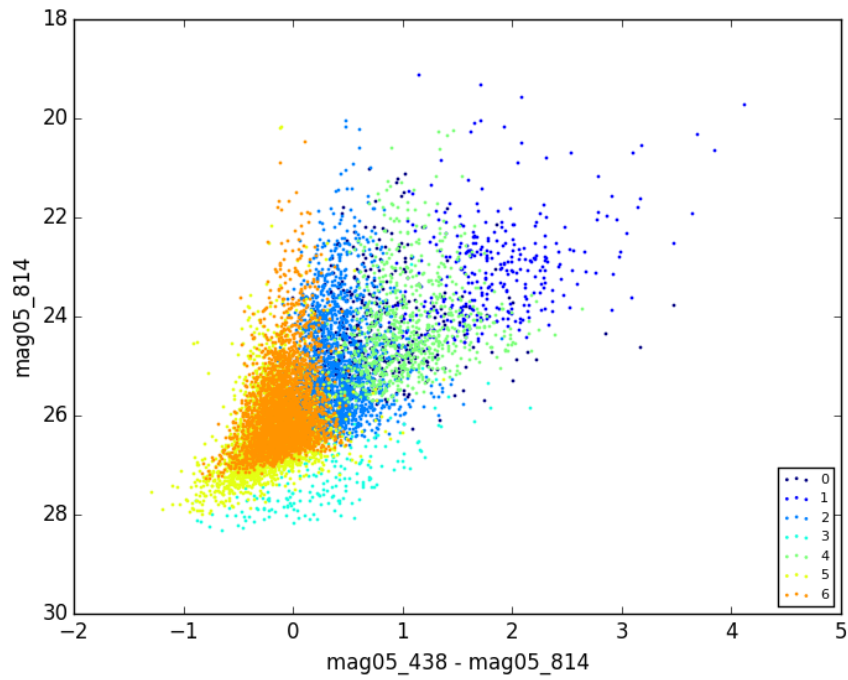

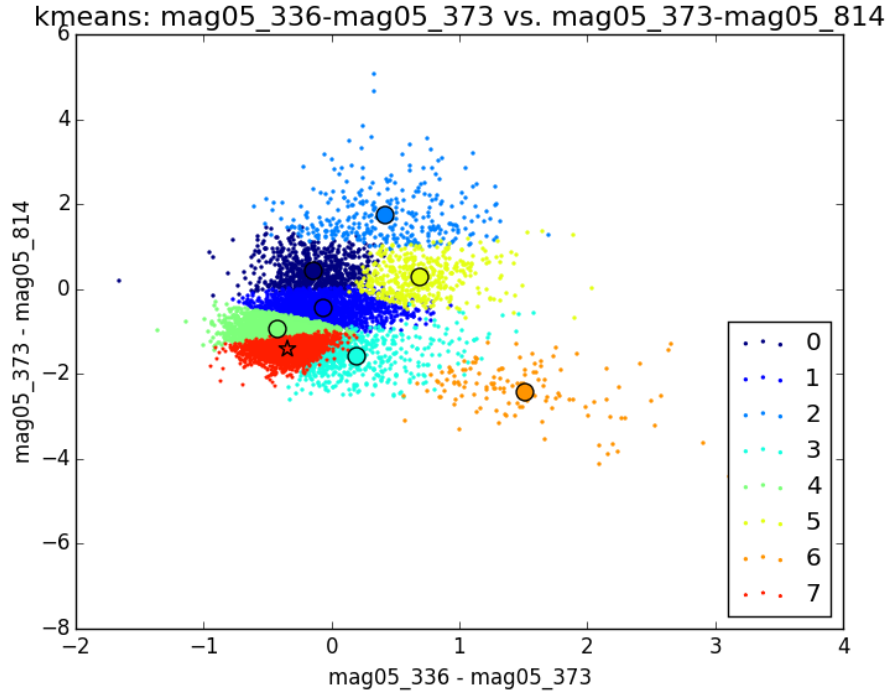Figure 25: kmeans_CMD_7cl_mag05_438-mag05_814vsmag05_814.png

Figure 26: kmeans_3d_8cl_mag05_336-mag05_373vsmag05_373-mag05_814.png

kmeans results, Ncl=8

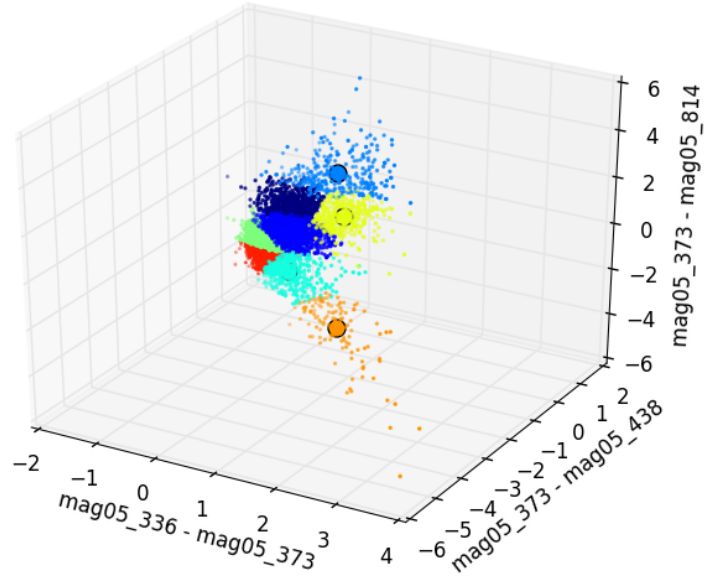| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	729	0.290253888017	0.327832508463	0.5308	0.6017	2.5175	0.0088	0.5179	-0.143519890261	-
2	1583	0.290253888017	0.231157803253	0.6261	0.5188	2.0208	0.0055	0.4113	-0.0684624131396	
3	309	0.290253888017	0.30380700761	1.1395	1.0203	4.2525	0.0310	0.9127	0.41474433657	-
4	587	0.290253888017	0.125728085436	1.3176	0.6794	2.8700	0.0065	0.8855	0.192320272572	
5	2513	0.290253888017	0.296507079749	0.8341	0.3777	1.7293	0.0022	0.304	-0.420897333864	-
6	429	0.290253888017	0.235984216271	0.6227	0.7573	2.8472	0.0062	0.6032	0.69079020979	-
7	130	0.290253888017	0.382150040117	2.3409	1.2077	5.5700	0.0301	2.0117	1.51338461538	
8	2278	0.290253888017	0.357929014718	1.0803	0.3575	1.5141	0.0014	0.4801	-0.346142669008	-

17

Figure 27: kmeans_3d_color_8cl_mag05_336-mag05_373vsmag05_373-mag05_438vsmag05_373-mag05_814.png
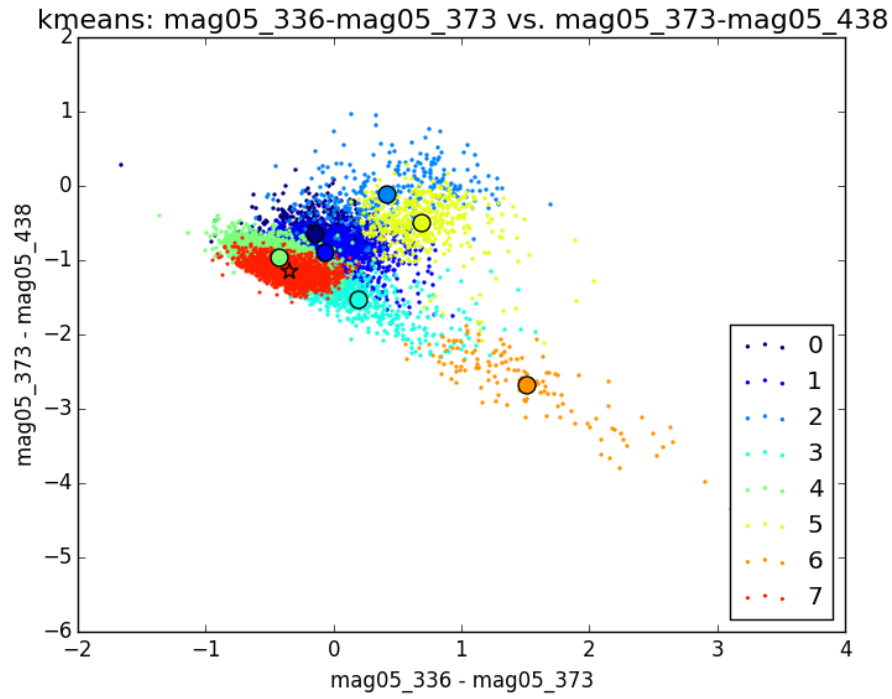

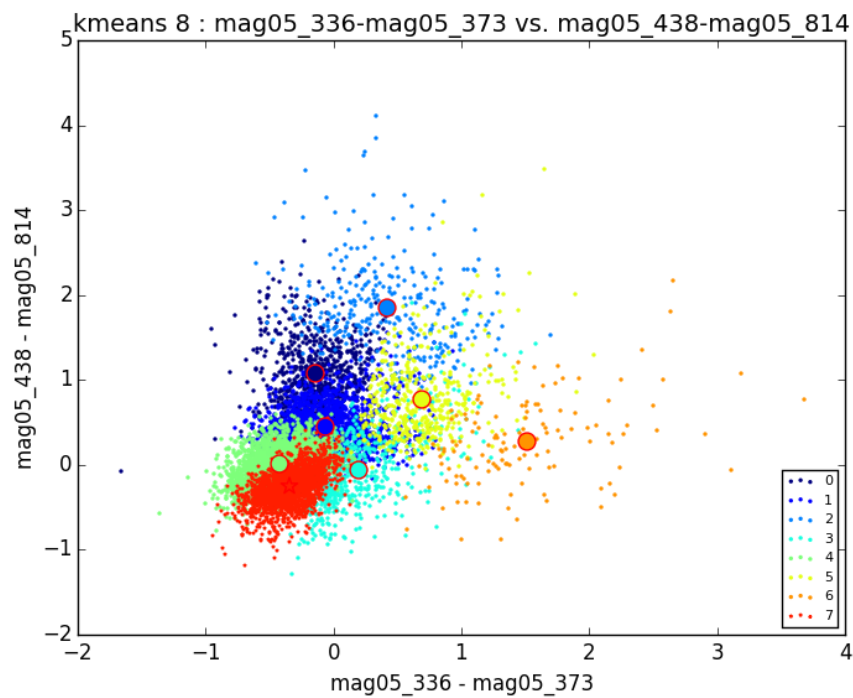Figure 28: kmeans_3d_8cl_mag05_336-mag05_373vsmag05_373-mag05_438.png

Figure 29: kmeans_base_color_8cl_mag05_336-mag05_373vsmag05_438-mag05_814.png
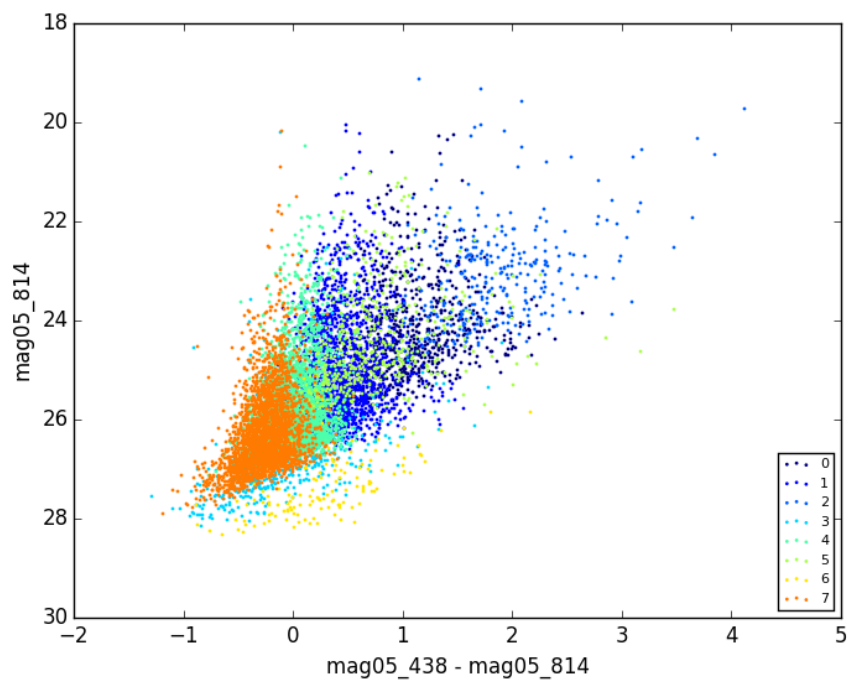

Figure 30: kmeans_CMD_8cl_mag05_438-mag05_814vsmag05_814.png

Meanshift results

Bandw	Nclust	score	TotObj	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10
0.7655	10	0.466881095913	8558	7684	505	213	58	54	39	2	1	1	1
0.8000	8	0.478761951438	8558	7696	501	208	100	39	10	3	1	0	0
0.8300	6	0.506693697101	8558	7968	403	104	69	13	1	0	0	0	0
0.8600	5	0.518195036047	8558	8038	399	69	51	1	0	0	0	0	0
1.0500	5	0.516183544514	8558	8069	368	69	51	1	0	0	0	0	0
0.9000	5	0.518693664673	8558	8045	392	69	51	1	0	0	0	0	0

meanshift results, Ncl=5

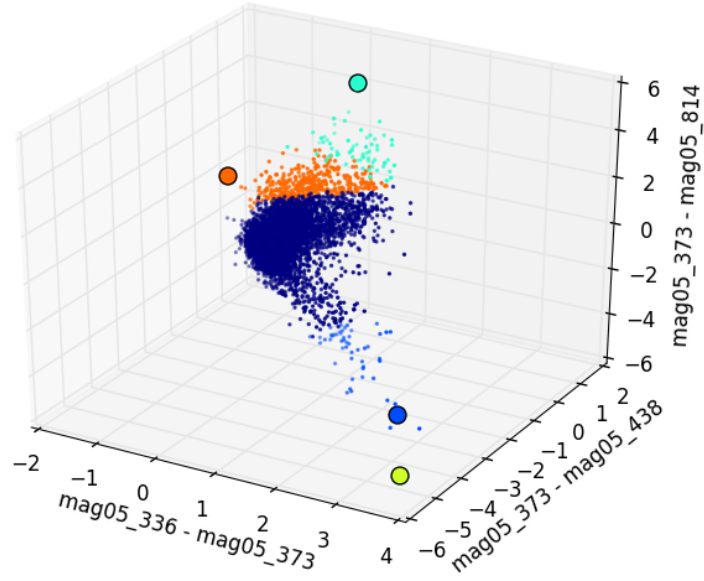| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	8038	0.518195036047	0.52274682388	0.9113	0.9561	5.4739	0.0014	0.5919	-0.317109063991	-1
2	51	0.518195036047	0.597829334734	2.7437	1.1754	3.3982	0.0901	2.403	3.2215	
3	69	0.518195036047	0.476717177633	1.6353	0.9407	3.4548	0.0310	1.1492	0.3325	
4	1	0.518195036047	0.0	N/A	N/A	N/A	N/A	4.2163	3.621	
5	399	0.518195036047	0.424790393029	0.8155	0.8881	3.2715	0.0180	0.7588	-1.659	
1	8069	0.516183544514	0.520041670814	0.9107	0.9650	5.4858	0.0014	0.5953	-0.29508948242	-1
2	51	0.516183544514	0.598173174574	2.7437	1.1754	3.3982	0.0901	2.403	3.2215	
3	69	0.516183544514	0.472522154977	1.6353	0.9407	3.4548	0.0310	1.1492	0.3325	
4	368	0.516183544514	0.42981432489	0.8215	0.8764	3.1946	0.0180	0.7642	-1.659	
5	1	0.516183544514	0.0	N/A	N/A	N/A	N/A	4.2163	3.621	
1	8045	0.518693664673	0.52328040081	0.9110	0.9576	5.4739	0.0014	0.5923	-0.312324859212	-1
2	51	0.518693664673	0.597898929261	2.7437	1.1754	3.3982	0.0901	2.403	3.2215	
3	69	0.518693664673	0.474561029448	1.6353	0.9407	3.4548	0.0310	1.1492	0.3325	
4	1	0.518693664673	0.0	N/A	N/A	N/A	N/A	4.2163	3.621	
5	392	0.518693664673	0.423346942171	0.8191	0.8894	3.2715	0.0180	0.7611	-1.659	

Figure 31: meanshift_3d_color_5cl_mag05_336-mag05_373vsmag05_373-mag05_438vsmag05_373-mag05_814.png
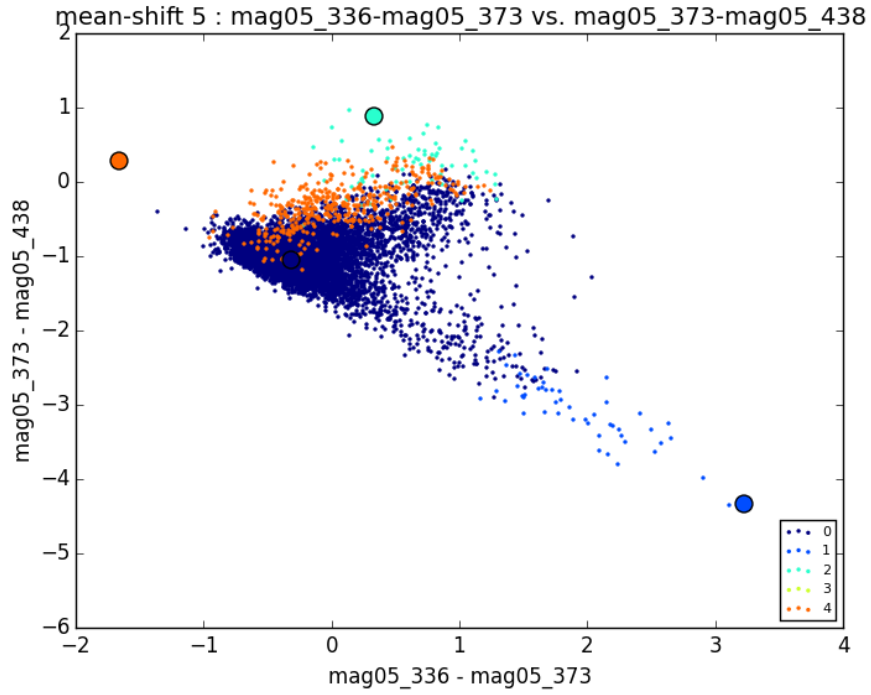

Figure 32: meanshift_3d_color_5cl_mag05_336-mag05_373vsmag05_373-mag05_438.png
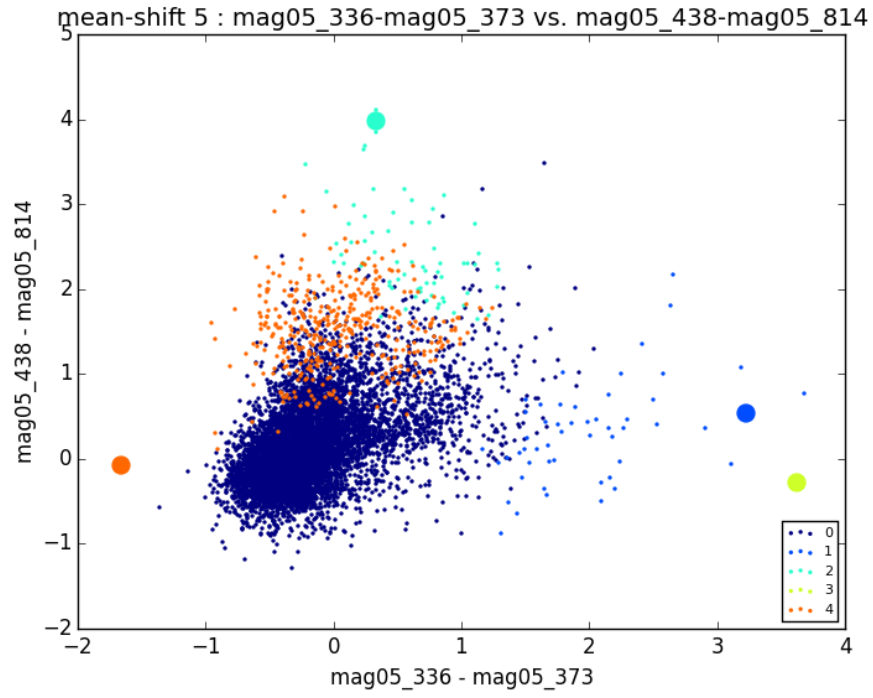
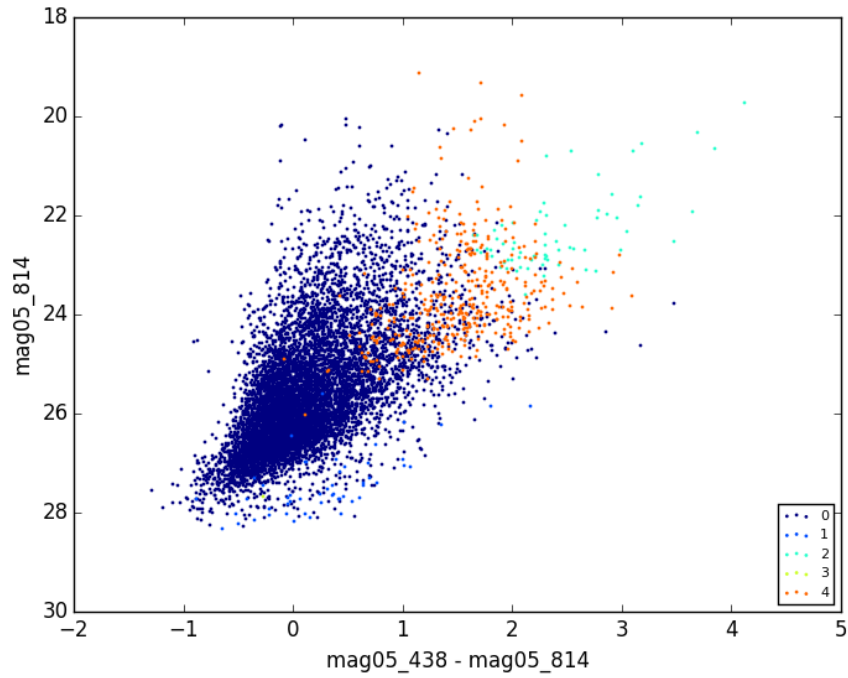Figure 33: meanshift_base_color_5cl_mag05_336-mag05_373vsmag05_438-mag05_814.png

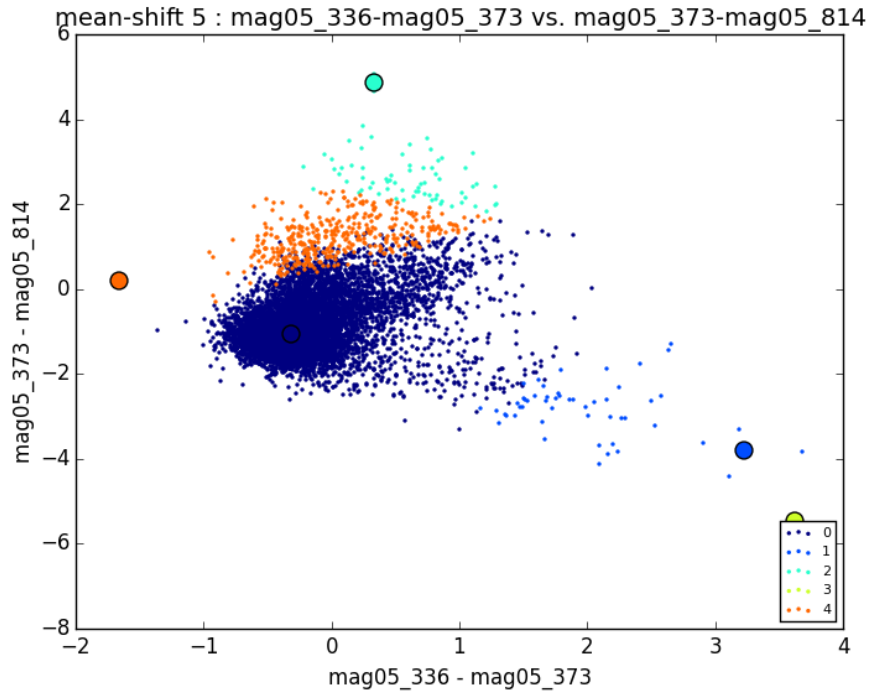Figure 34: meanshift_CMD_5cl_mag05_438-mag05_814vsmag05_814.png

Figure 35: meanshift__3d__color__5cl__mag05__336-mag05__373vsmag05__373-mag05__814.png

meanshift results, Ncl=6

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	7968	0.506693697101	0.511772212735	0.8974	0.9298	5.2943	0.0014	0.5728	-0.321345709985	-1
2	13	0.506693697101	0.435441266547	3.3705	1.0450	2.5289	0.0901	2.9514	3.2215	
3	104	0.506693697101	0.47630029128	2.1766	1.0406	4.7141	0.0301	1.8919	2.568	
4	69	0.506693697101	0.478008369587	1.6353	0.9407	3.4548	0.0310	1.1492	0.3325	
5	1	0.506693697101	0.0	N/A	N/A	N/A	N/A	4.2163	3.621	
6	403	0.506693697101	0.422593360938	0.8135	0.8891	3.2715	0.0180	0.7575	-1.659	

Figure 36: meanshift__3d__color__6cl__mag05__336-mag05__373vsmag05__373-mag05__814.png

Figure 37: meanshift__3d__color__6cl__mag05__336-mag05__373vsmag05__373-mag05__438vsmag05__373-mag05__814.png
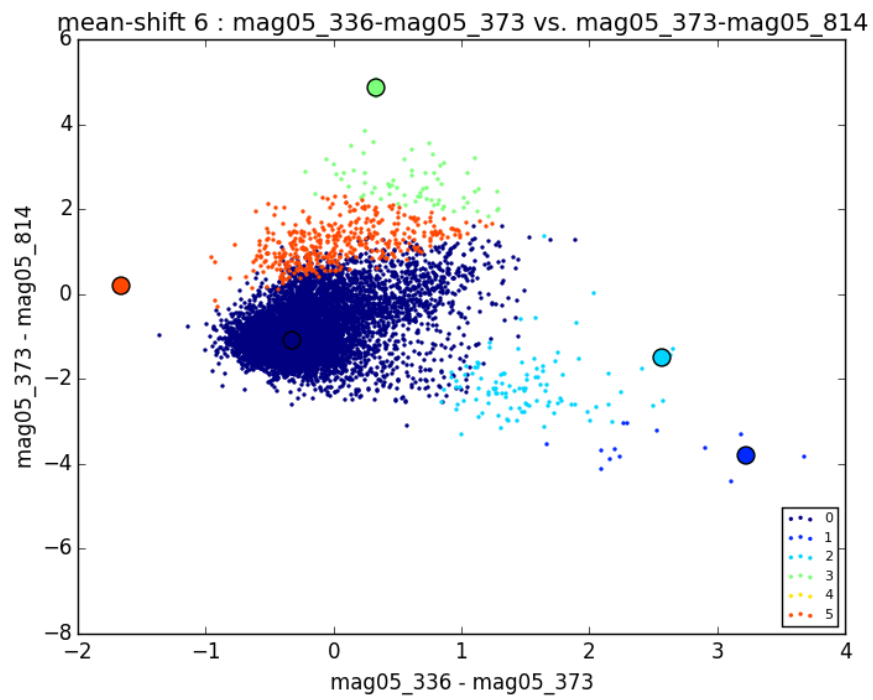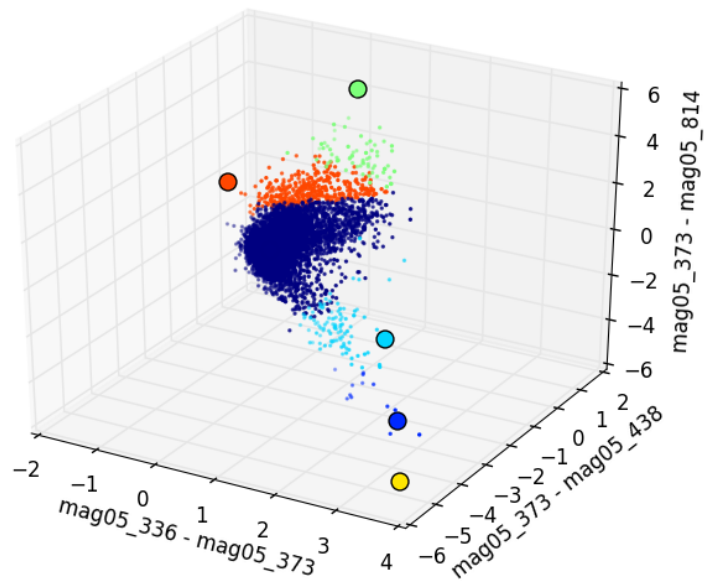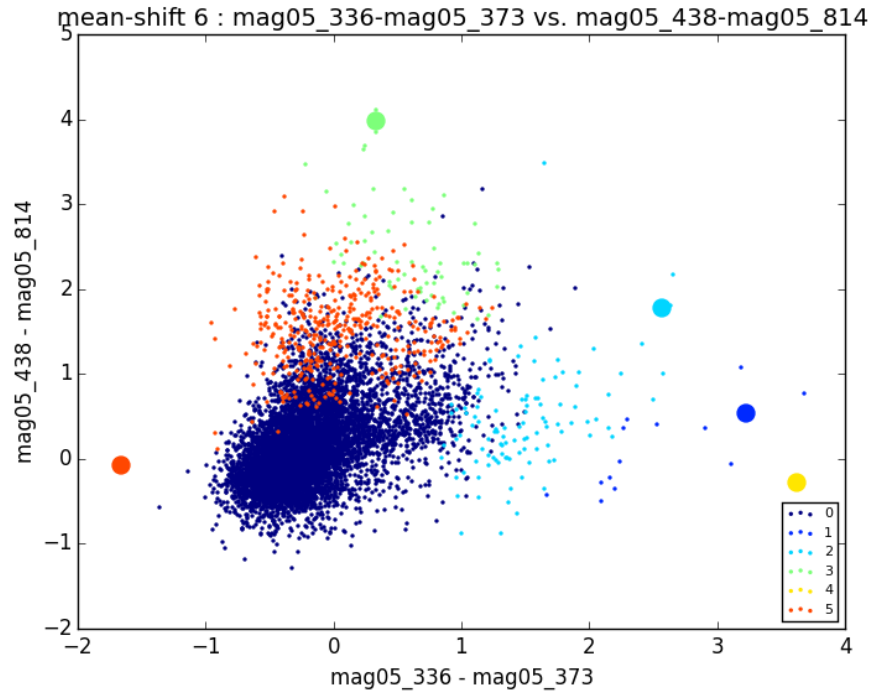
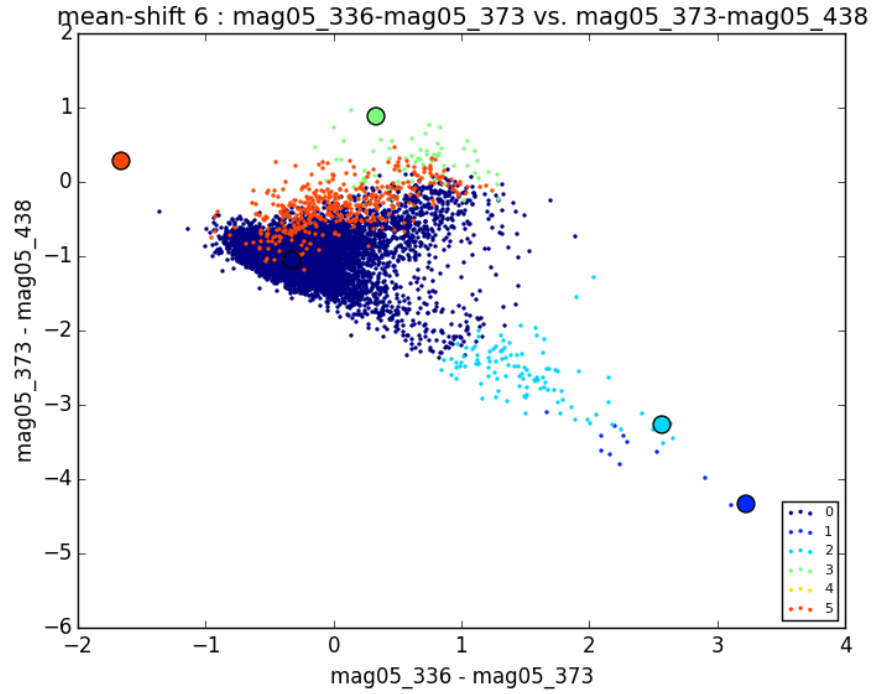Figure 38: meanshift_base_color_6cl_mag05_336-mag05_373vsmag05_438-mag05_814.png

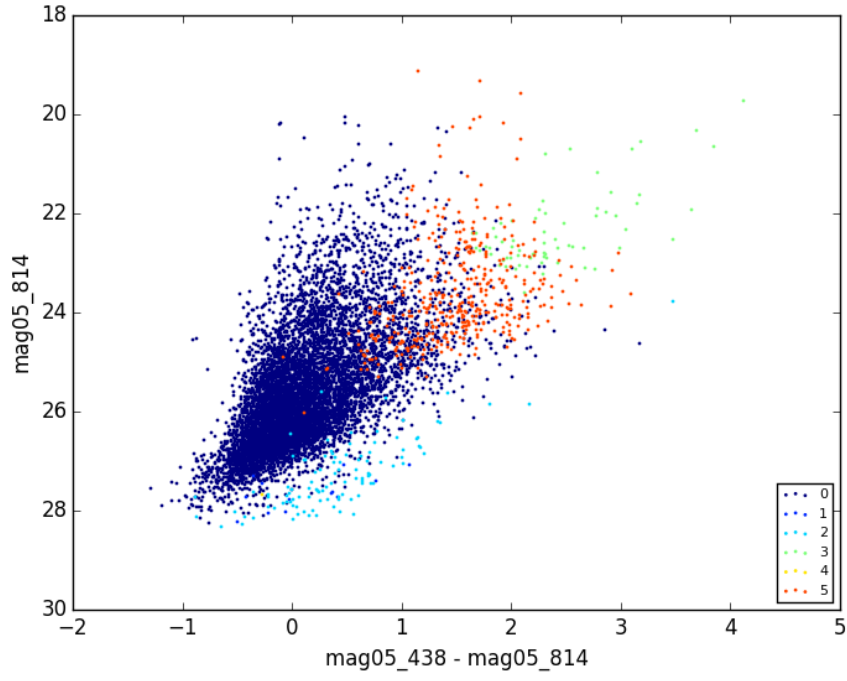Figure 39: meanshift_3d_color_6cl_mag05_336-mag05_373vsmag05_373-mag05_438.png

Figure 40: meanshift_CMD_6cl_mag05_438-mag05_814vsmag05_814.png

meanshift results, Ncl=8

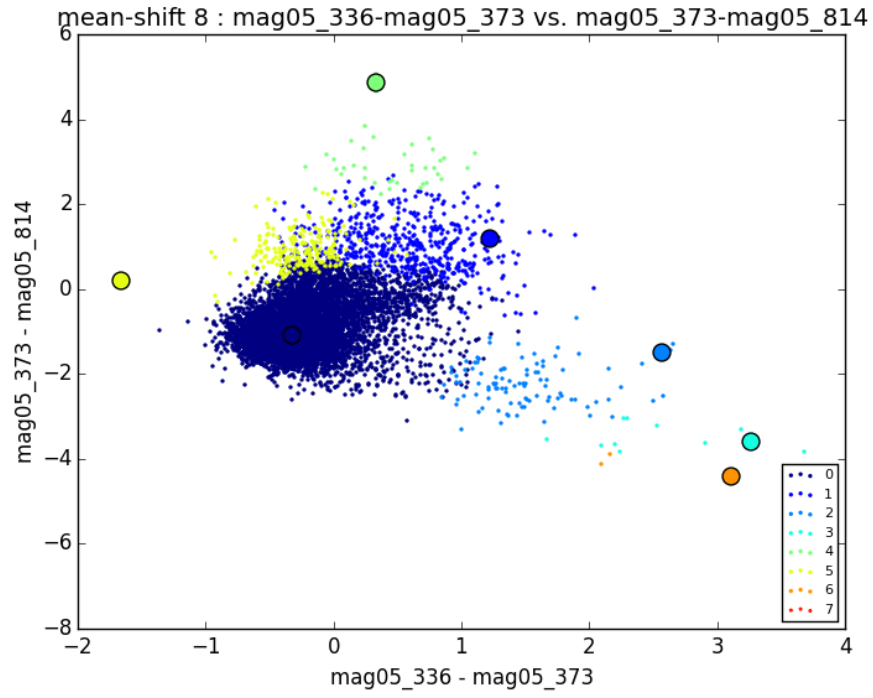| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	7696	0.478761951438	0.508336925077	0.9019	0.8507	4.3426	0.0014	0.5372	-0.325429157409	-
2	501	0.478761951438	0.055273591458	0.8868	1.0653	3.9584	0.0062	0.7908	1.22166666667	-
3	100	0.478761951438	0.50421411935	2.1987	0.9205	2.8989	0.0301	1.8933	2.568	
4	10	0.478761951438	0.0465307343166	3.3042	1.0228	2.5289	0.0901	2.9126	3.26	-
5	39	0.478761951438	0.578159674192	1.8070	0.9234	2.8404	0.0935	1.2932	0.3325	
6	208	0.478761951438	0.40159007656	0.6805	0.7107	2.7686	0.0180	0.6734	-1.659	
7	3	0.478761951438	0.142017731675	3.5828	0.9352	1.2771	0.2527	3.0661	3.106	
8	1	0.478761951438	0.0	N/A	N/A	N/A	N/A	4.2163	3.621	

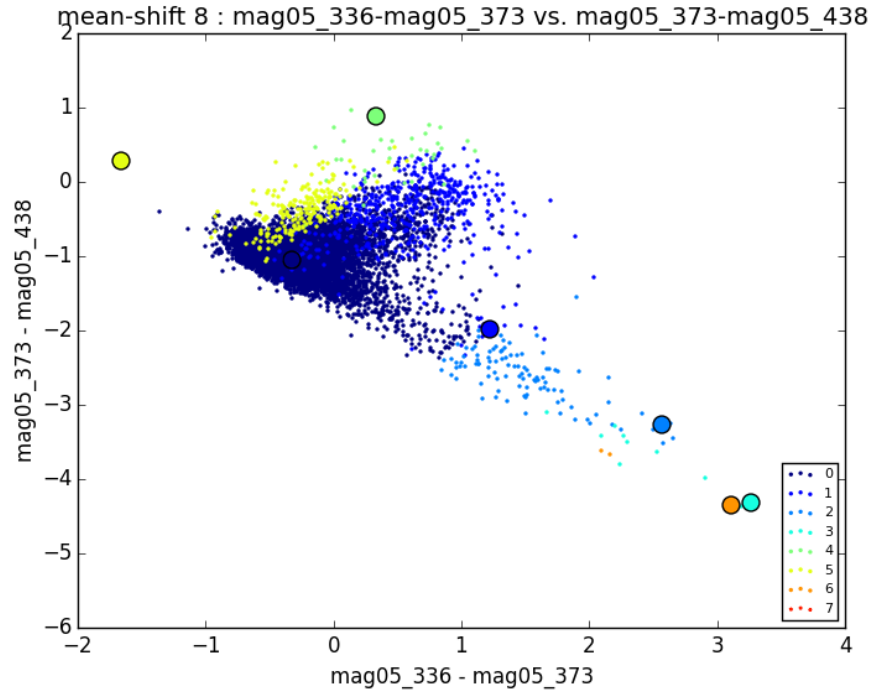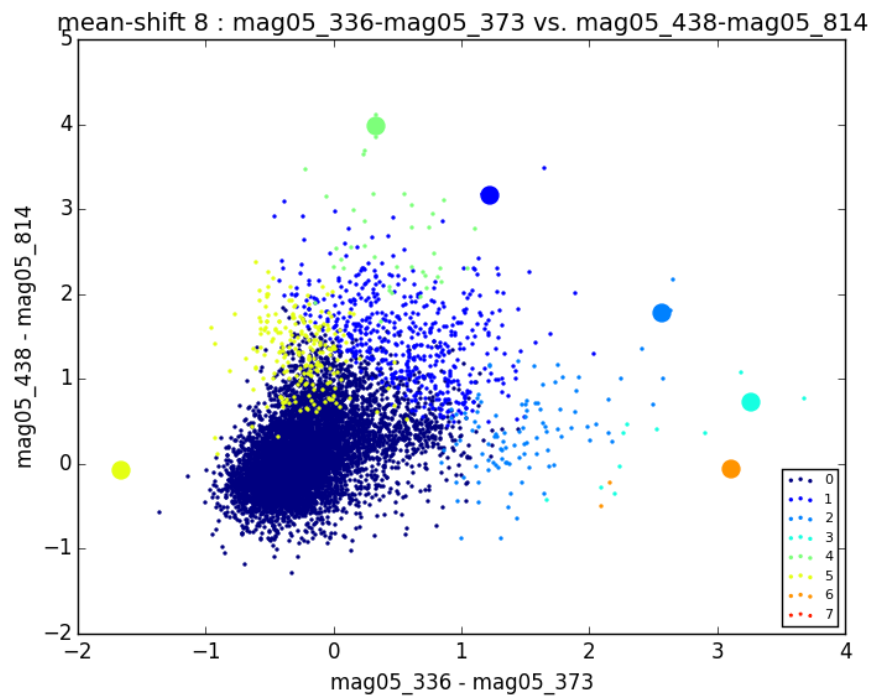Figure 41: meanshift__3d__color__8cl__mag05__336-mag05__373vsmag05__373-mag05__814.png

Figure 42: meanshift__3d__color__8cl__mag05__336-mag05__373vsmag05__373-mag05__438.png

28

Figure 43: meanshift__base__color__8cl__mag05__336-mag05__373vsmag05__438-mag05__814.png
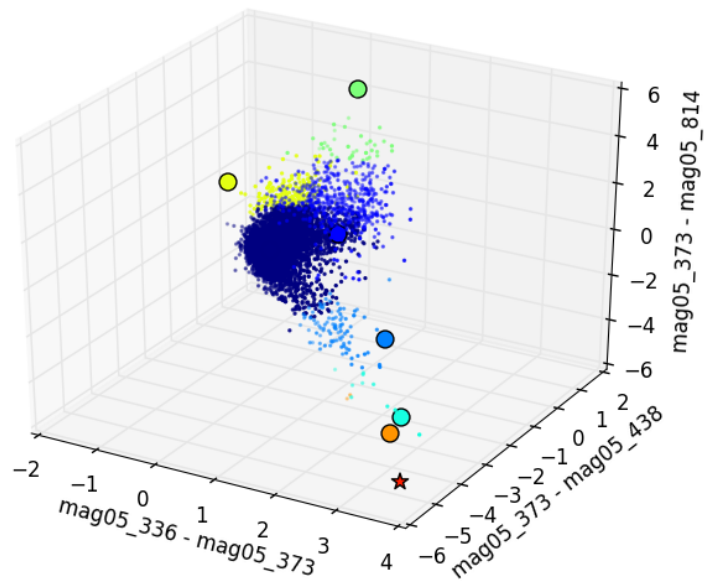

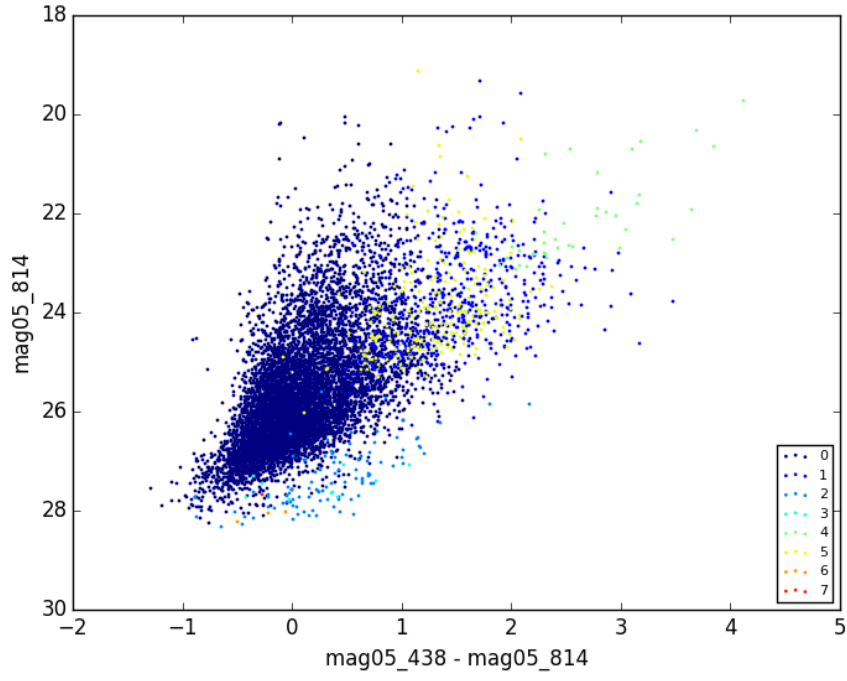Figure 44: meanshift_3d_color_8cl__mag05__336-mag05__373vsmag05__373-mag05__438vsmag05__373-mag05__814.png

Figure 45: meanshift_CMD_8cl_mag05_438-mag05_814vsmag05_814.png

meanshift results, Ncl=10

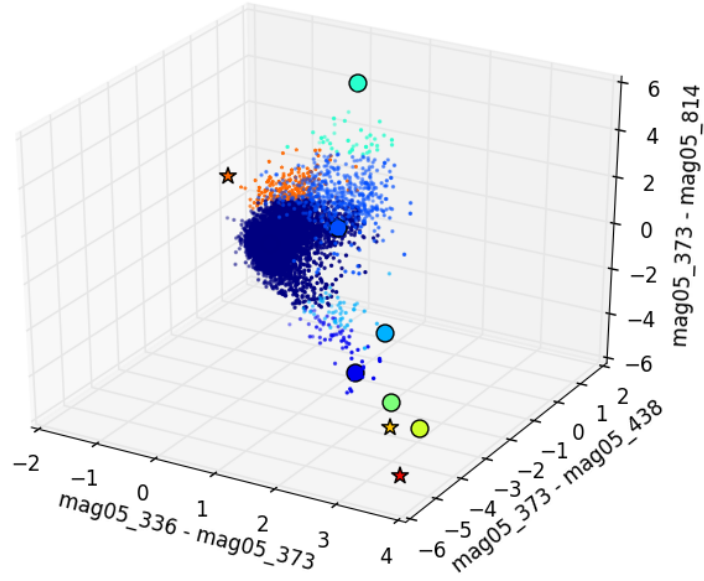| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	7684	0.466881095913	0.498717598162	0.9015	0.8478	3.7475	0.0014	0.5359	-0.329974089636	-
2	58	0.466881095913	0.117406086707	2.5090	0.9566	2.5756	0.0411	2.1137	2.14266666667	-
3	505	0.466881095913	0.0557974456849	0.8850	1.0665	3.9584	0.0062	0.7901	1.22166666667	-
4	54	0.466881095913	0.378772192791	2.0201	0.7709	2.4383	0.0301	1.7745	2.568	
5	39	0.466881095913	0.579354162782	1.8070	0.9234	2.8404	0.0935	1.2932	0.3325	
6	2	0.466881095913	0.290273422212	3.5985	0.5806	0.5806	0.5806	3.2563	3.049	
7	1	0.466881095913	0.0	N/A	N/A	N/A	N/A	3.74	3.682	
8	1	0.466881095913	0.0	N/A	N/A	N/A	N/A	3.5257	3.106	
9	213	0.466881095913	0.398150581417	0.6771	0.7159	2.7686	0.0180	0.6711	-1.659	
10	1	0.466881095913	0.0	N/A	N/A	N/A	N/A	4.2163	3.621	

Figure 46: meanshift_3d_color_10cl_mag05_336-mag05_373vsmag05_373-mag05_438vsmag05_373-mag05_814.png
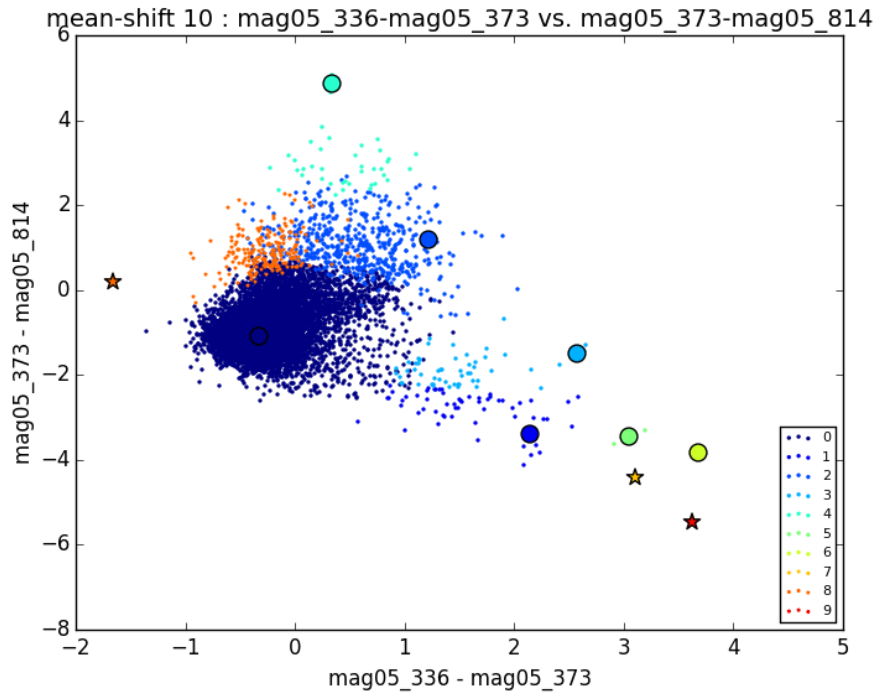

Figure 47: meanshift_3d_color_10cl_mag05_336-mag05_373vsmag05_373-mag05_814.png
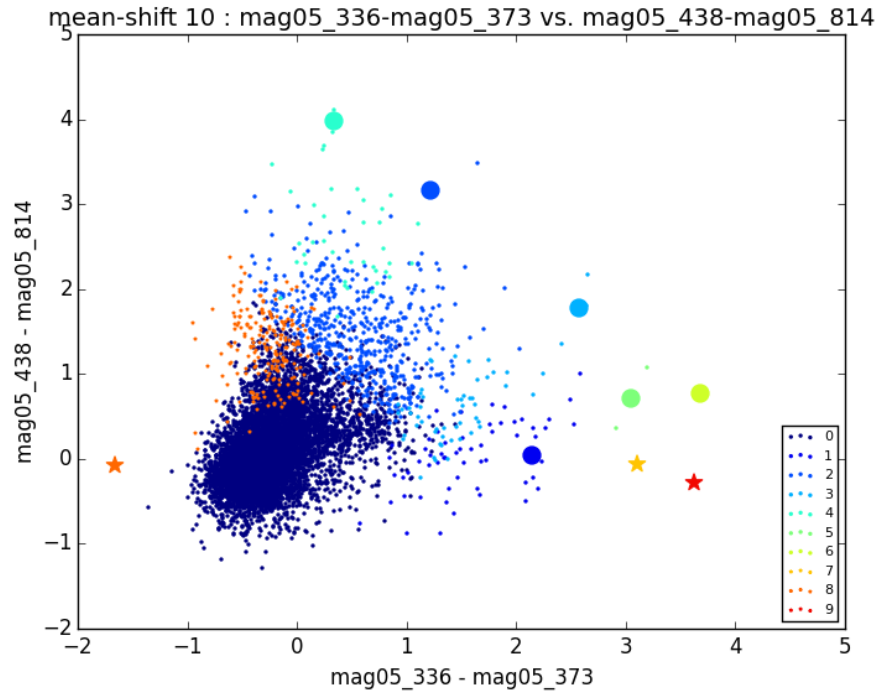
Figure 48: meanshift__base__color__10cl__mag05__336-mag05__373vsmag05__438-mag05__814.png
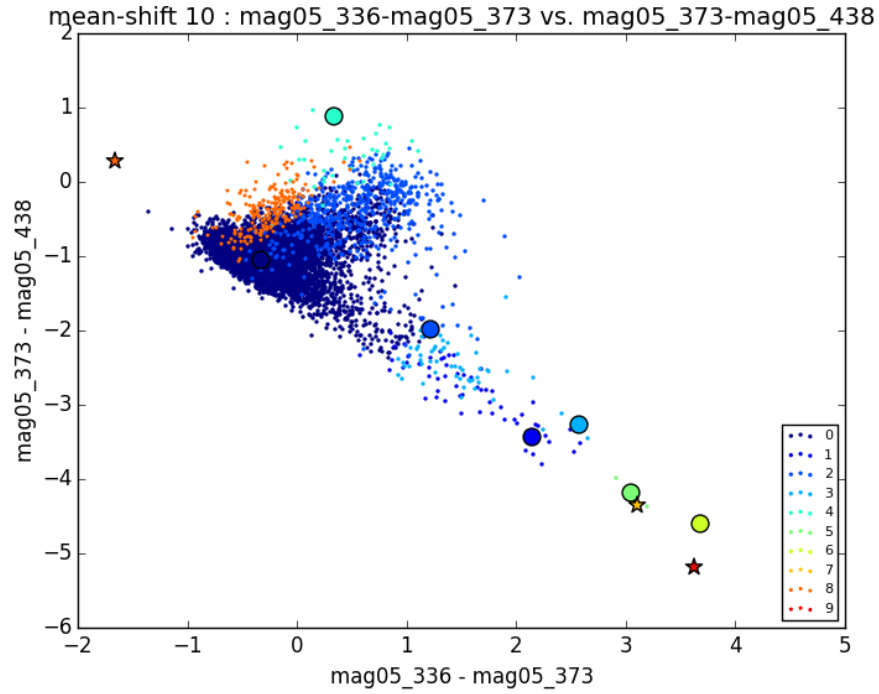

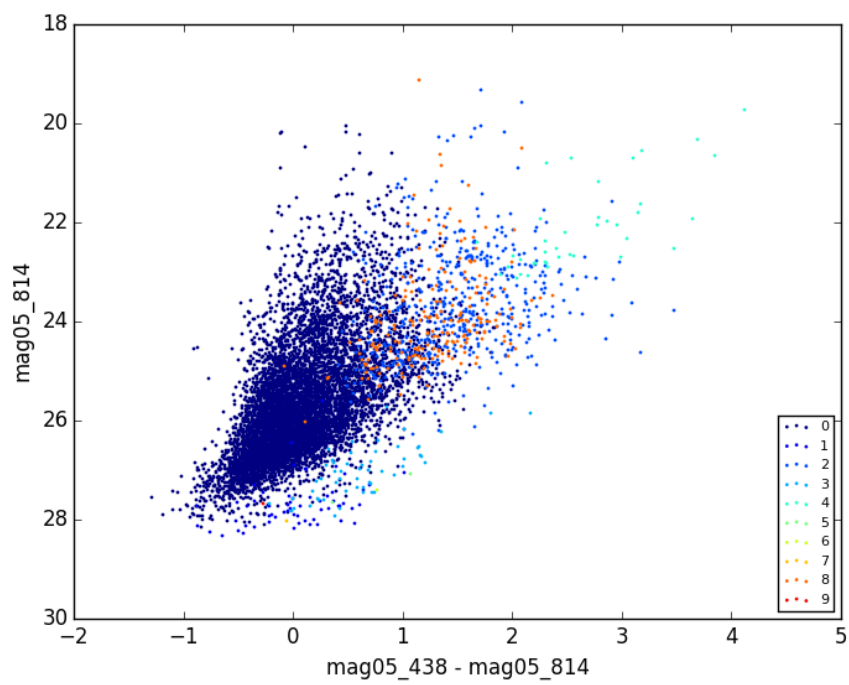Figure 49: meanshift__3d__color__10cl__mag05__336-mag05__373vsmag05__373-mag05__438.png

Figure 50: meanshift_CMD_10cl_mag05_438-mag05_814vsmag05_814.png