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_555

K-means results

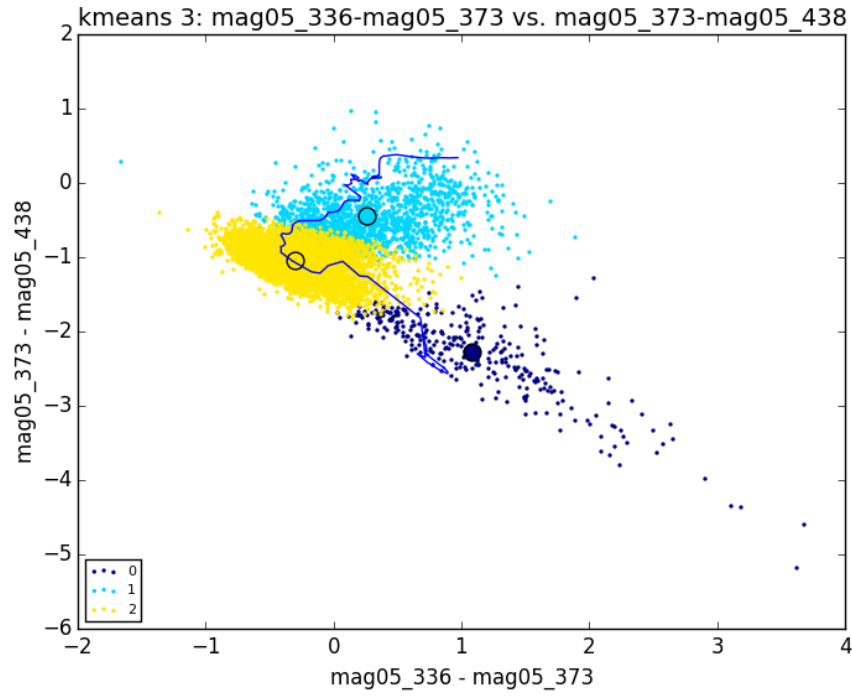| Nclust	inertia	score	TotObj	N1	N2	N3	N4	N5	N6	N7	N8
3	2277.68271677	0.551773382429	8657	6843	1509	305	0	0	0	0	0
4	1731.85023285	0.342989829036	8657	3720	3649	1046	242	0	0	0	0
5	1373.141792	0.350746561039	8657	3888	2351	1629	562	227	0	0	0
6	1197.10863677	0.329393184186	8657	3104	2882	1462	531	529	149	0	0
7	1060.23000793	0.319232164051	8657	2766	2719	1633	692	436	270	141	0
8	945.288730901	0.334463761732	8657	2739	2434	1245	975	532	331	273	128

Figure 1: kmeans_3d_projection_3cl_mag05_336-mag05_373vsmag05_373-mag05_438.png

kmeans results, Ncl=3

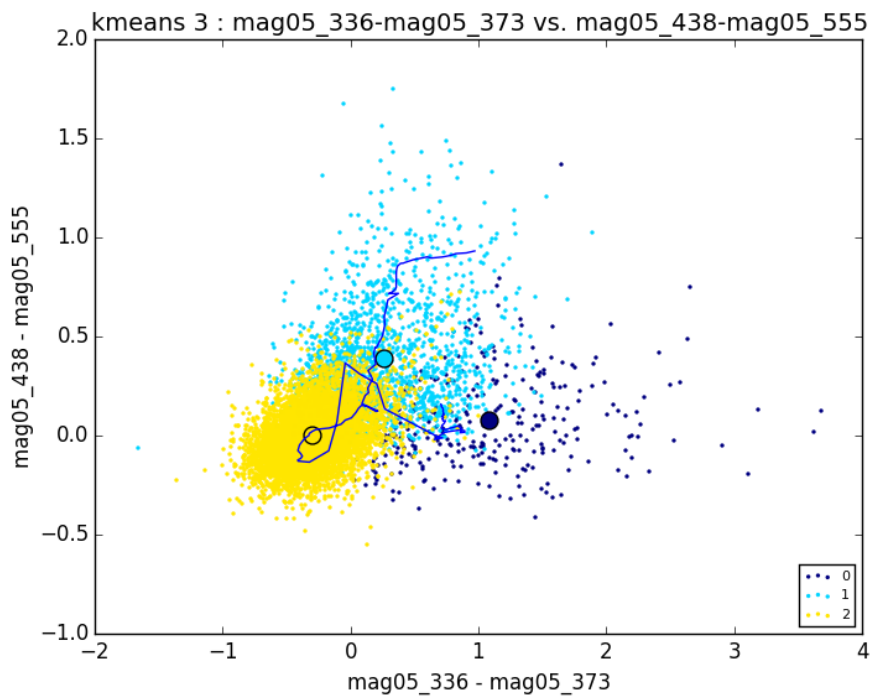| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	305	0.551773382429	0.41832020177	2.0296	1.1987	6.1226	0.0173	1.6841	1.08972131148	-2
2	1509	0.551773382429	0.326564314264	0.5159	0.8697	4.3840	0.0041	0.5084	0.266175612989	-0
3	6843	0.551773382429	0.60738403623	0.9066	0.5149	2.6036	0.0014	0.4276	-0.297533245652	-1

Figure 2: kmeans__base__color__3cl__mag05__336-mag05__373vsmag05__438-mag05__555.png
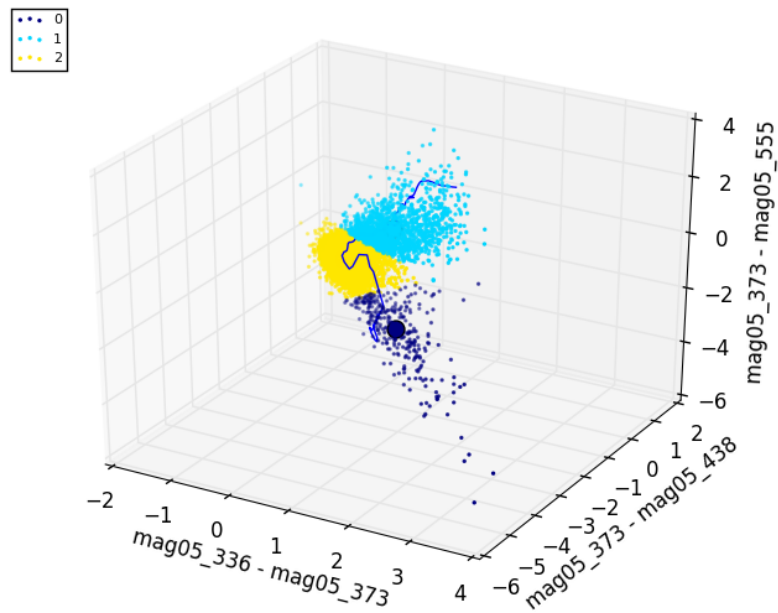

Figure 3: kmeans_3d_3cl__mag05__336-mag05__373vsmag05__373-mag05__438vsmag05__373-mag05__555.png
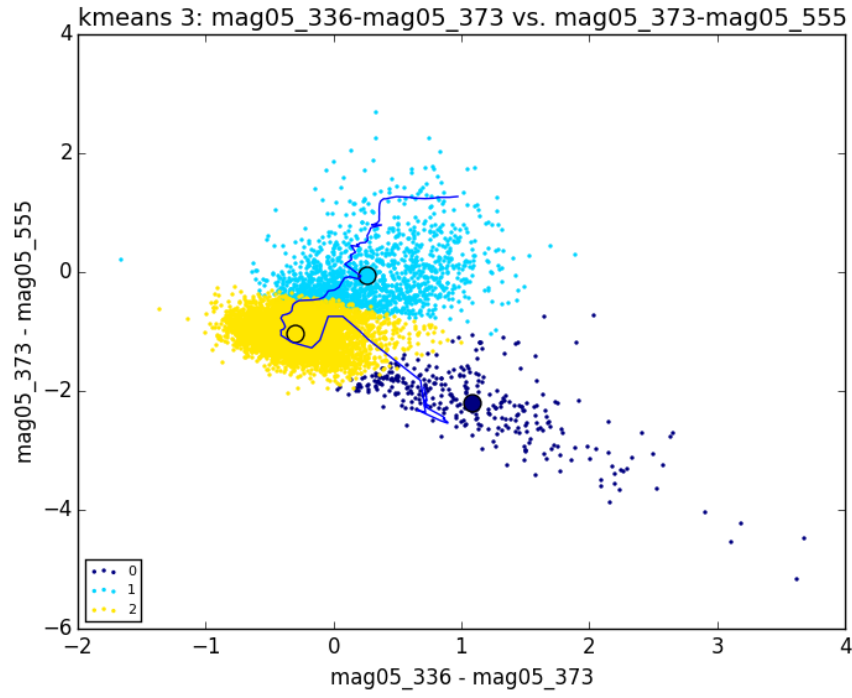
Figure 4: kmeans_3d_projection_3cl_mag05_336-mag05_373vsmag05_373-mag05_555.png
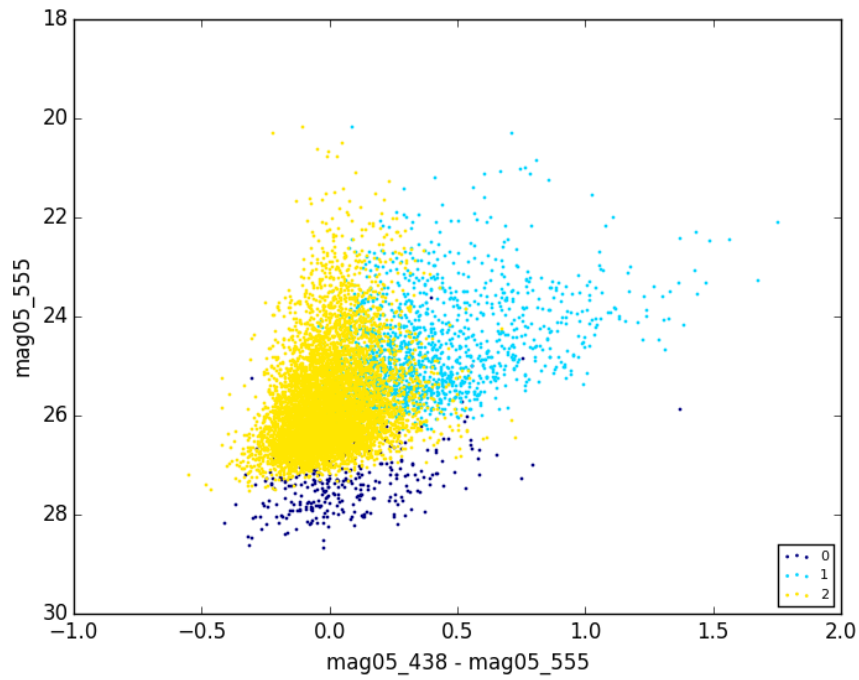

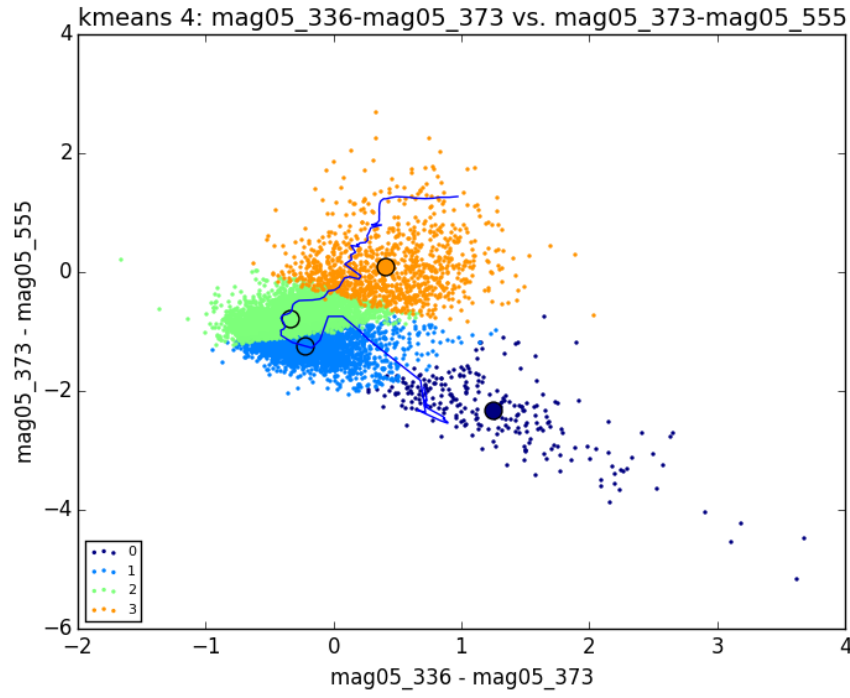Figure 5: kmeans_CMD_3cl_mag05_438-mag05_555vsmag05_555.png

Figure 6: kmeans_3d_projection_4cl_mag05_336-mag05_373vsmag05_373-mag05_555.png

kmeans results, Ncl=4

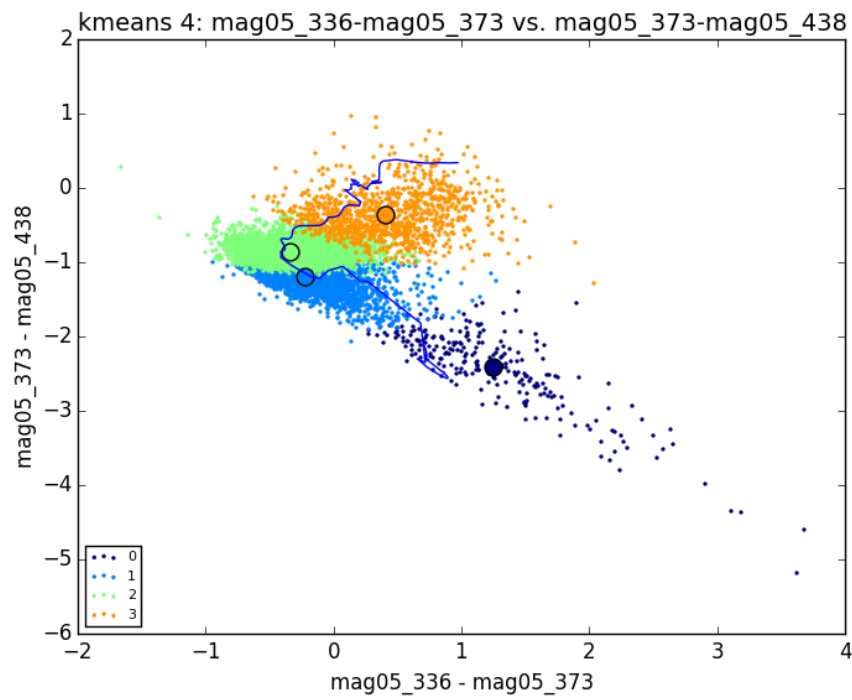| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	242	0.342989829036	0.448873208488	2.1551	1.1559	5.8991	0.0215	1.8114	1.25623553719	-2
2	3649	0.342989829036	0.375153129358	1.0304	0.4239	2.2606	0.0024	0.5184	-0.216659906824	-1
3	3720	0.342989829036	0.31478208542	0.7326	0.4546	2.8020	0.0014	0.3136	-0.334674462366	-0
4	1046	0.342989829036	0.306608515028	0.5238	0.8845	4.4148	0.0065	0.5218	0.410684512428	-0

5

Figure 7: kmeans_3d_projection_4cl_mag05_336-mag05_373vsmag05_373-mag05_438.png
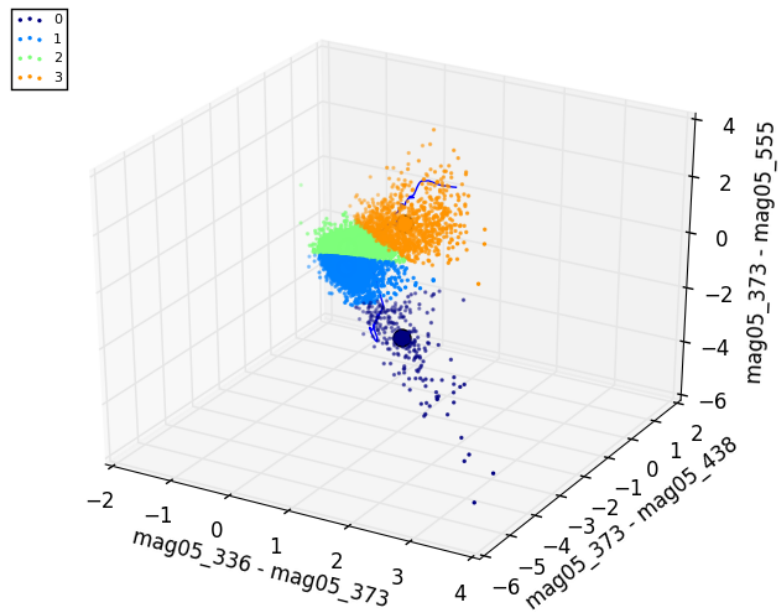

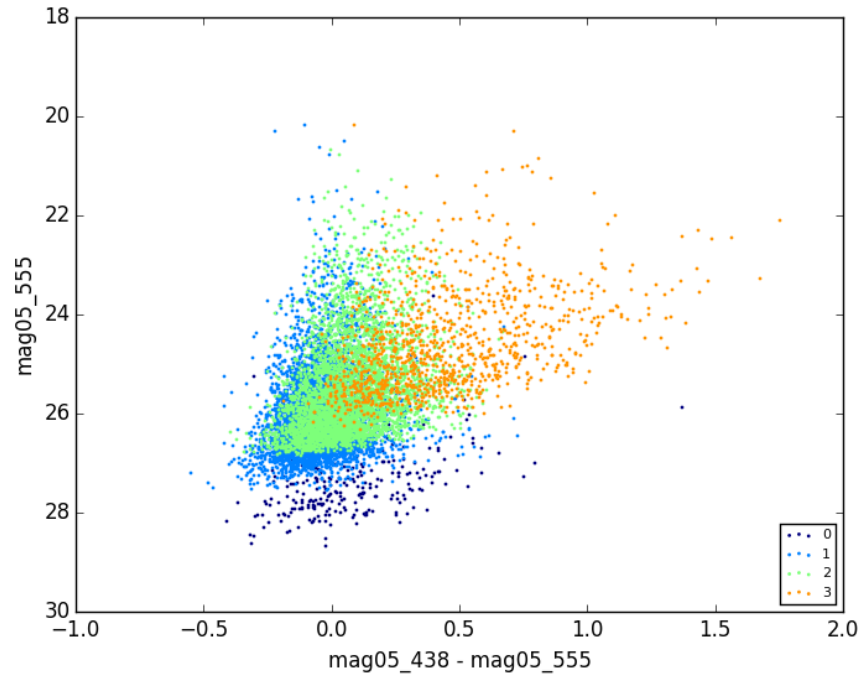Figure 8: kmeans_3d_4cl_mag05_336-mag05_373vsmag05_373-mag05_438vsmag05_373-mag05_555.png

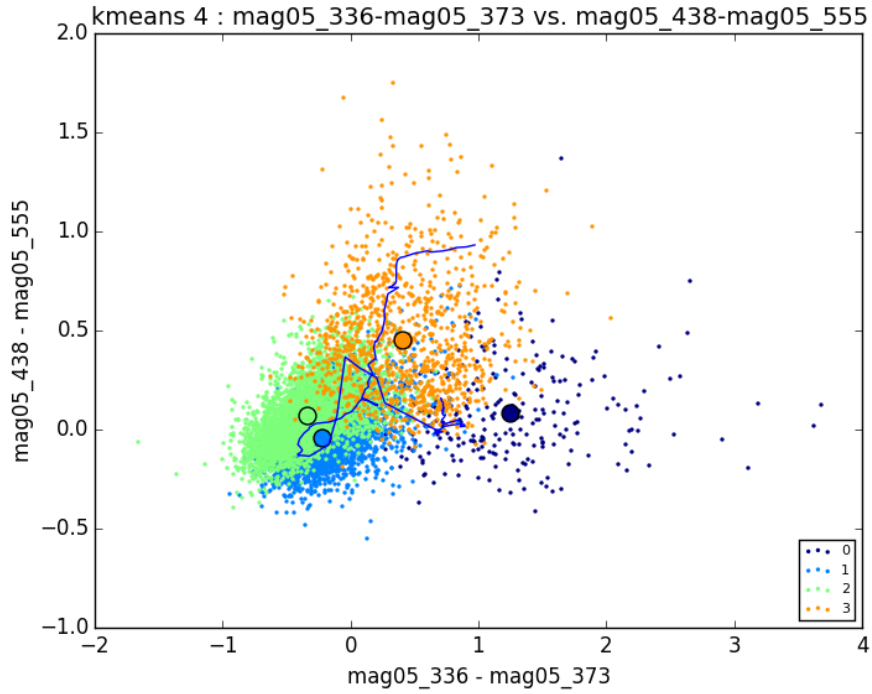Figure 9: kmeans_CMD_4cl_mag05_438-mag05_555vsmag05_555.png

Figure 10: kmeans_base_color_4cl_mag05_336-mag05_373vsmag05_438-mag05_555.png
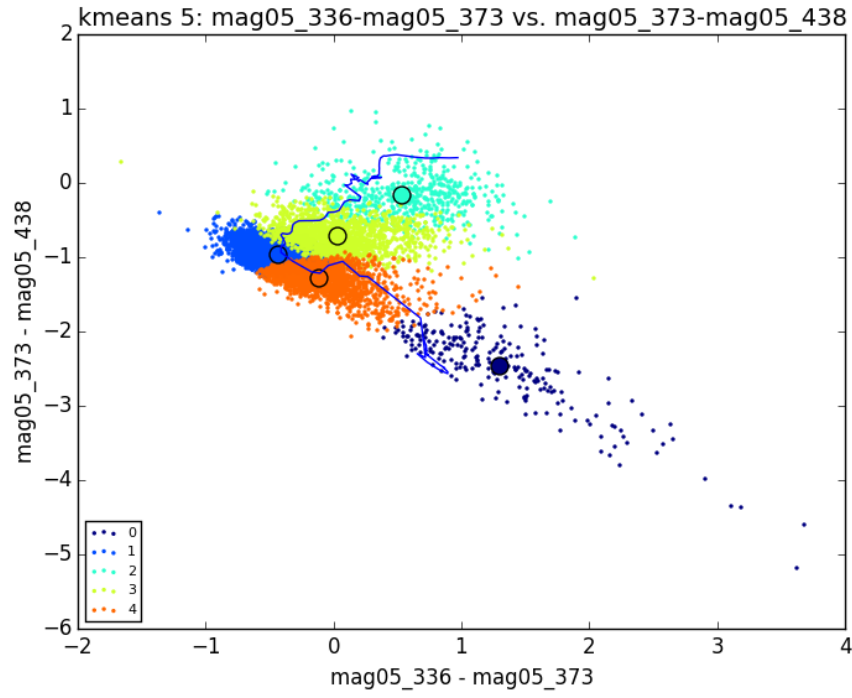
7

Figure 11: kmeans__3d__projection__5cl__mag05__336-mag05__373vsmag05__373-mag05__438.png

kmeans results, Ncl=5

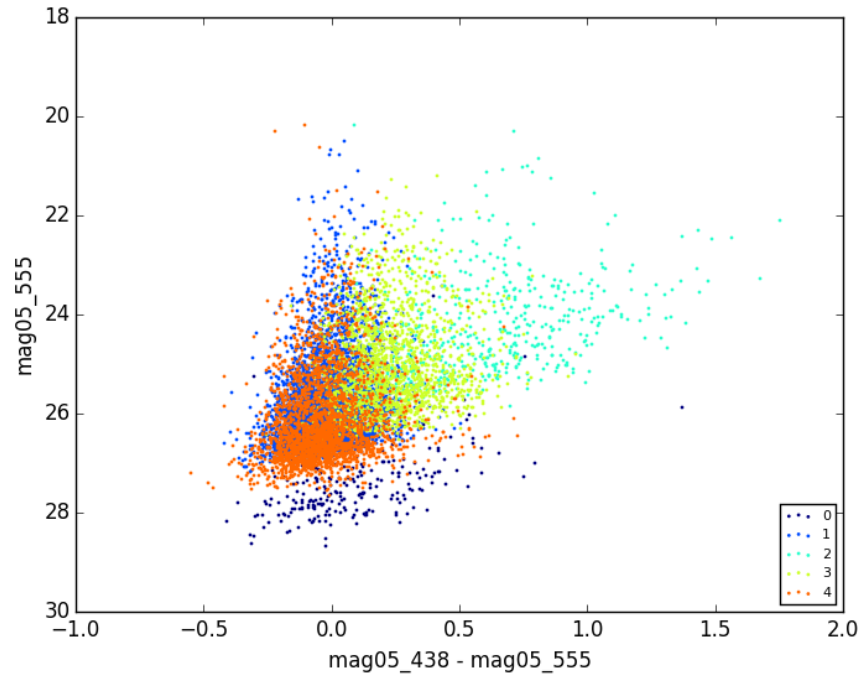| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	227	0.350746561039	0.439104202996	2.1905	1.1396	5.8270	0.0215	1.846	1.29952422907	-
2	3888	0.350746561039	0.405563136869	0.8430	0.3459	1.5739	0.0014	0.2978	-0.431086419753	-(
3	562	0.350746561039	0.305077626158	0.5629	0.8545	3.7549	0.0143	0.5022	0.534443060498	-(
4	1629	0.350746561039	0.279851208803	0.5544	0.5375	4.1153	0.0041	0.3958	0.0283996316759	-(
5	2351	0.350746561039	0.311601702953	1.0817	0.4236	2.0751	0.0024	0.5946	-0.11380008507	-

8

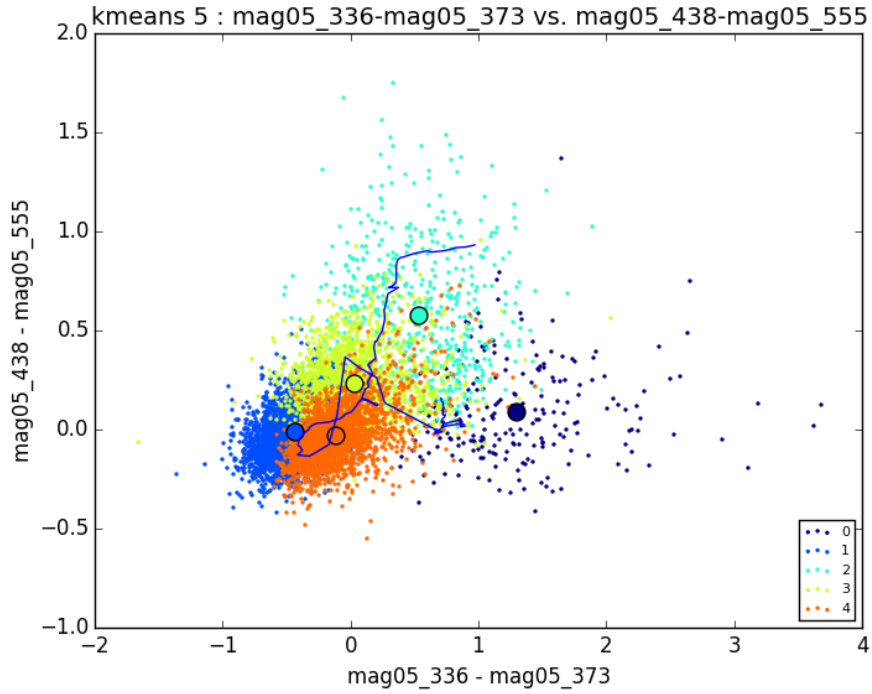Figure 12: kmeans_CMD_5cl_mag05_438-mag05_555vsmag05_555.png

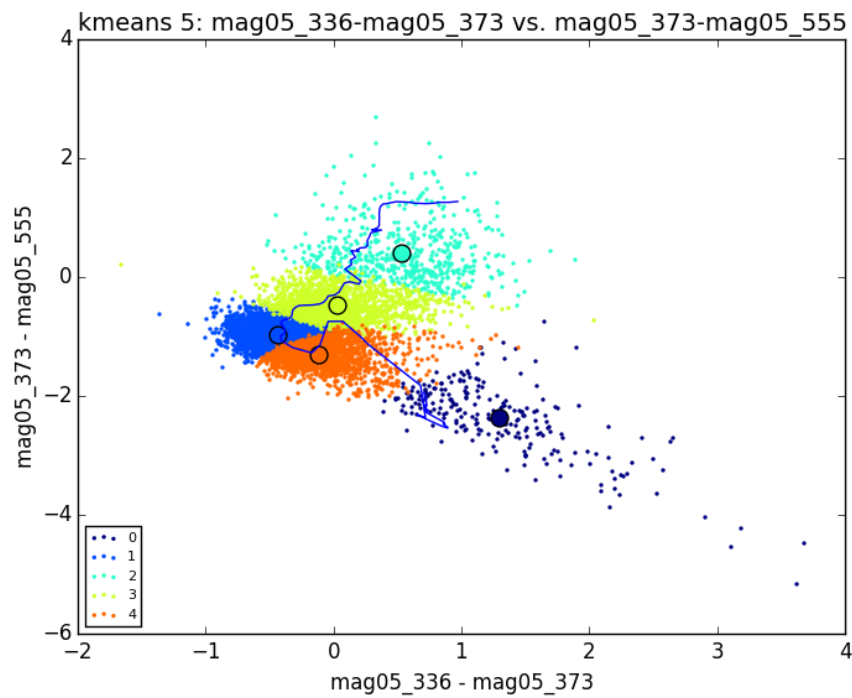Figure 13: kmeans_base_color_5cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

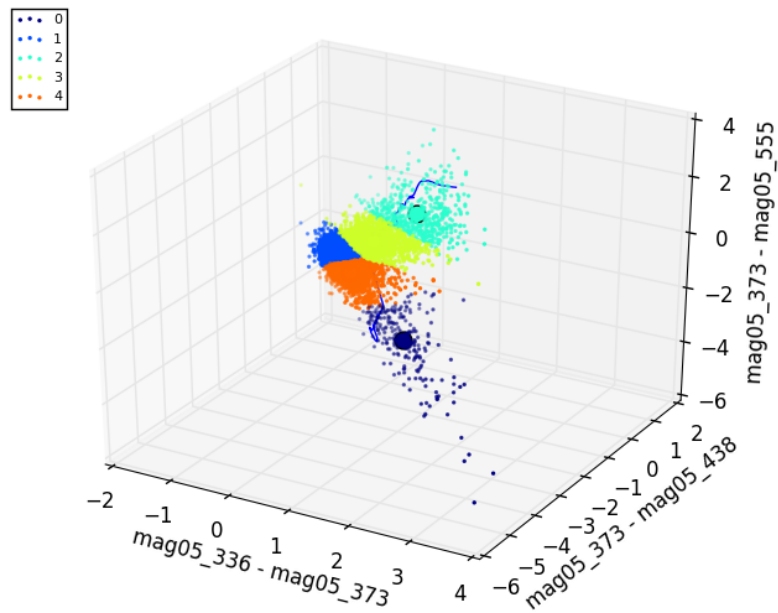Figure 14: kmeans__3d__projection__5cl__mag05__336-mag05__373vsmag05__373-mag05__555.png

Figure 15: kmeans__3d__5cl__mag05__336-mag05__373vsmag05__373-mag05__438vsmag05__373-mag05__555.png
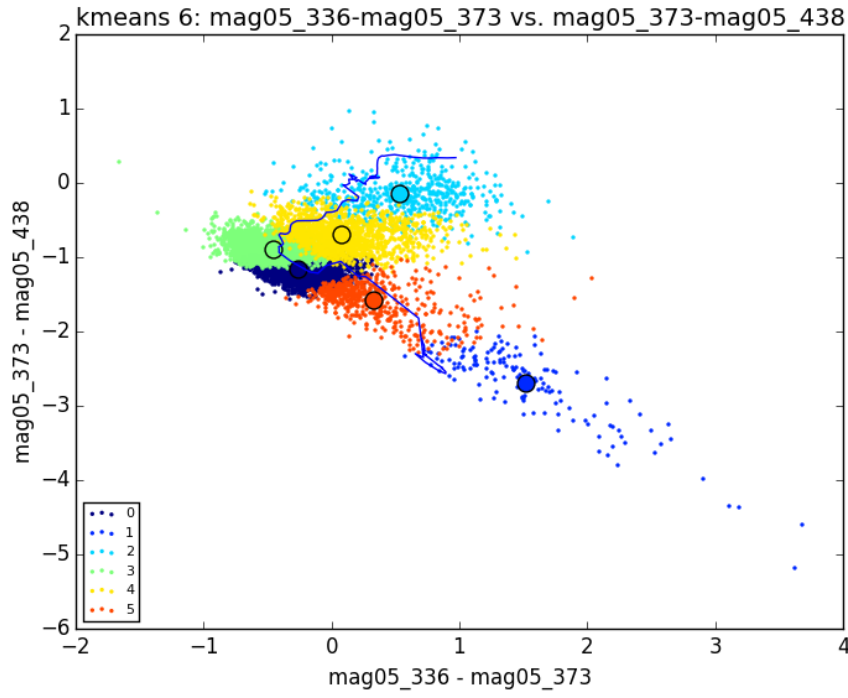
Figure 16: kmeans_3d_projection_6cl_mag05_336-mag05_373vsmag05_373-mag05_438.png

kmeans results, Ncl=6

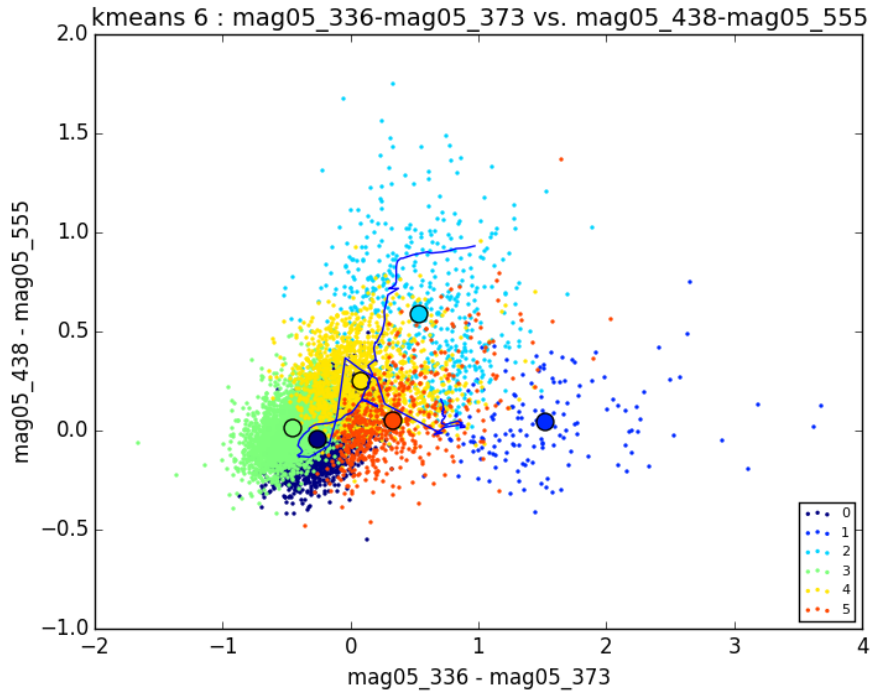| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	3104	0.329393184186	0.366183495513	0.9971	0.3261	1.3377	0.0024	0.4649	-0.259576353093	-
2	149	0.329393184186	0.466056727622	2.4212	1.0366	5.1136	0.0215	2.0549	1.52410067114	-
3	529	0.329393184186	0.302309462943	0.5677	0.8487	3.4690	0.0143	0.4981	0.538618147448	-(
4	2882	0.329393184186	0.338783626453	0.7883	0.3399	2.3683	0.0014	0.2587	-0.452283136711	-(
5	1462	0.329393184186	0.266894268708	0.5441	0.5431	2.2999	0.0041	0.4101	0.0822175102599	-(
6	531	0.329393184186	0.224077655044	1.3220	0.6229	2.7410	0.0047	0.939	0.329542372881	-

Figure 17: kmeans_base_color_6cl_mag05_336-mag05_373vsmag05_438-mag05_555.png
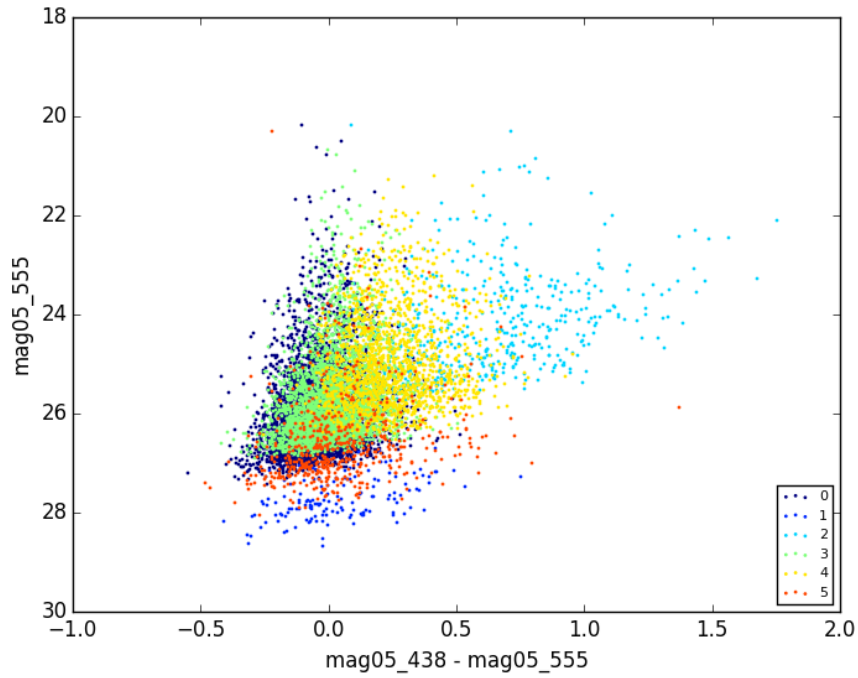

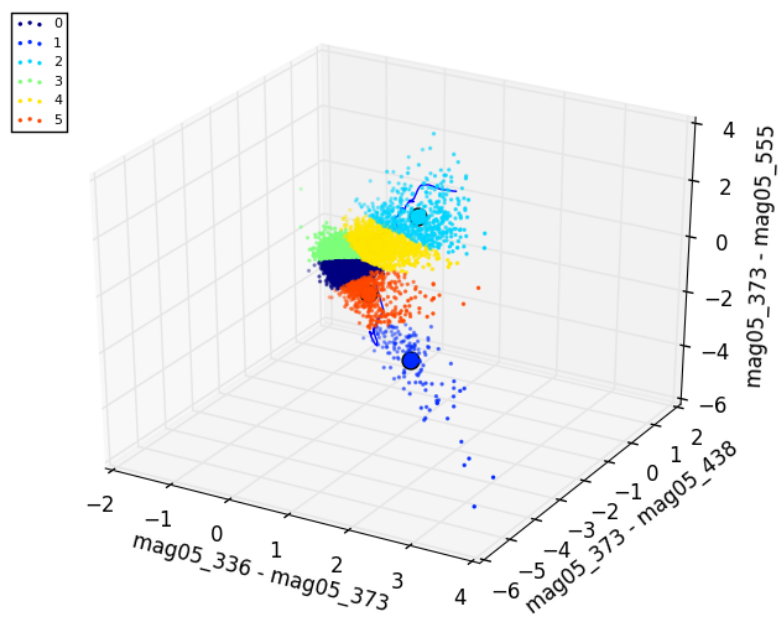Figure 18: kmeans_CMD_6cl_mag05_438-mag05_555vsmag05_555.png

Figure 19: kmeans_3d_6cl_mag05_336-mag05_373vsmag05_373-mag05_438vsmag05_373-mag05_555.png
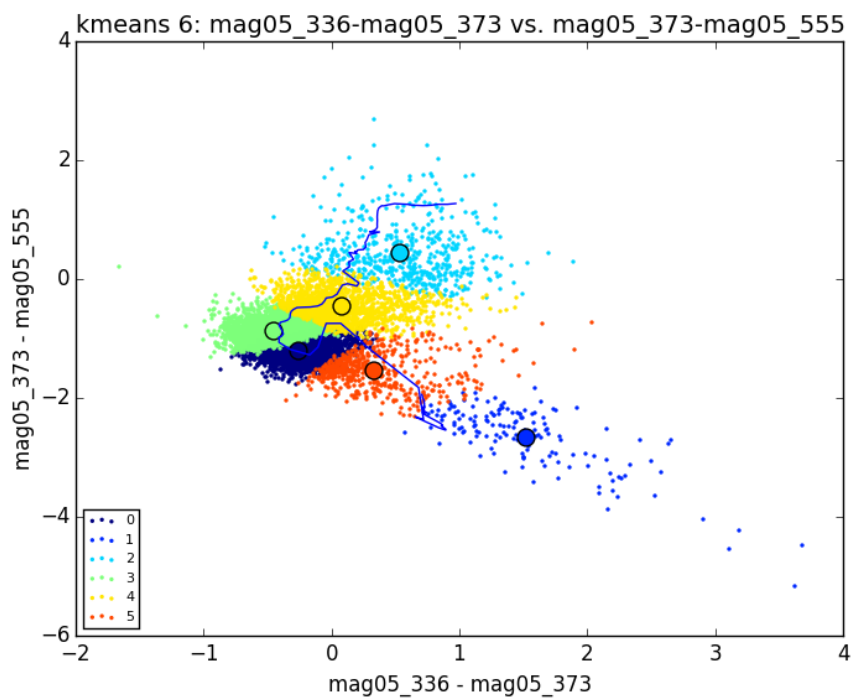

Figure 20: kmeans_3d_projection_6cl_mag05_336-mag05_373vsmag05_373-mag05_555.png
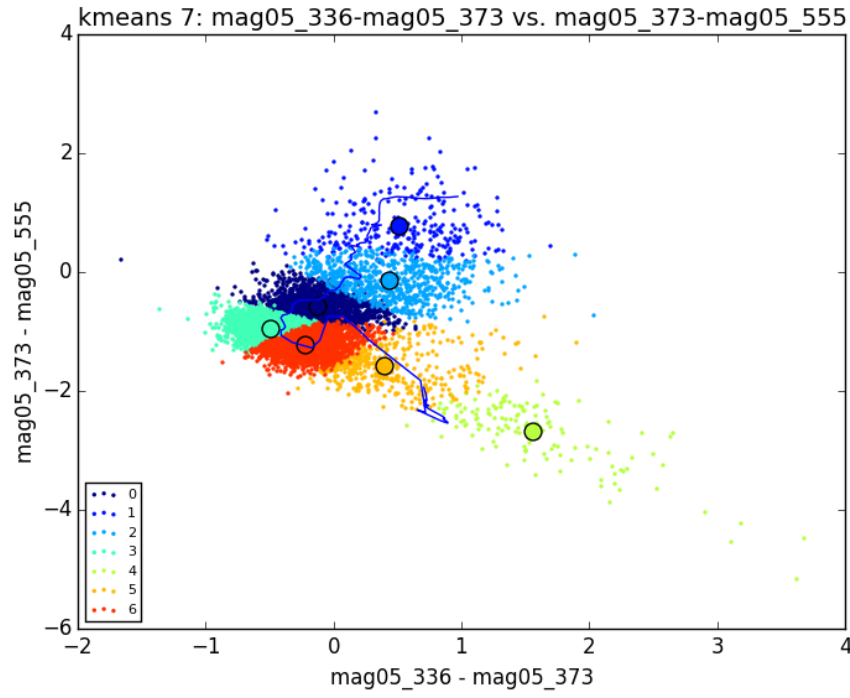
13

Figure 21: kmeans_3d_projection_7cl_mag05_336-mag05_373vsmag05_373-mag05_555.png

kmeans results, Ncl=7

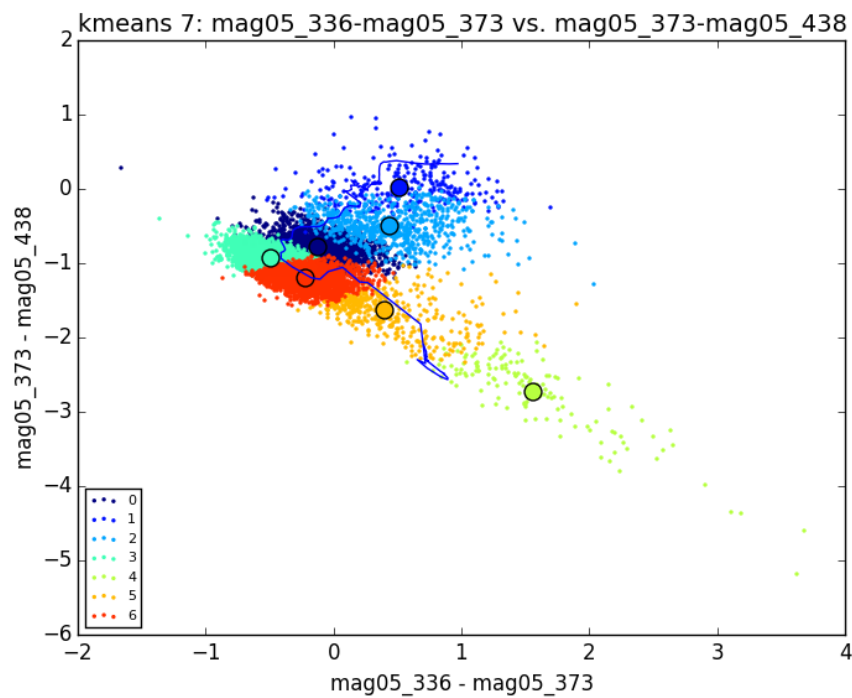| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	1633	0.319232164051	0.255239038027	0.6014	0.4331	2.8939	0.0024	0.3395	-0.122311083895	-0
2	270	0.319232164051	0.296139677821	0.6553	0.8183	2.8918	0.0223	0.4904	0.520607407407	0.
3	692	0.319232164051	0.229453886218	0.4862	0.6349	2.7384	0.0065	0.4814	0.440242774566	-0
4	2719	0.319232164051	0.371626940923	0.8362	0.3007	1.4322	0.0014	0.2581	-0.486487311512	-0
5	141	0.319232164051	0.45996377164	2.4503	1.0301	5.0131	0.0215	2.0837	1.55873049645	-0
6	436	0.319232164051	0.228087877063	1.3701	0.6488	2.3209	0.0071	0.9957	0.399793577982	-0
7	2766	0.319232164051	0.337416064441	1.0143	0.3294	1.4290	0.0024	0.4925	-0.223718727404	-0

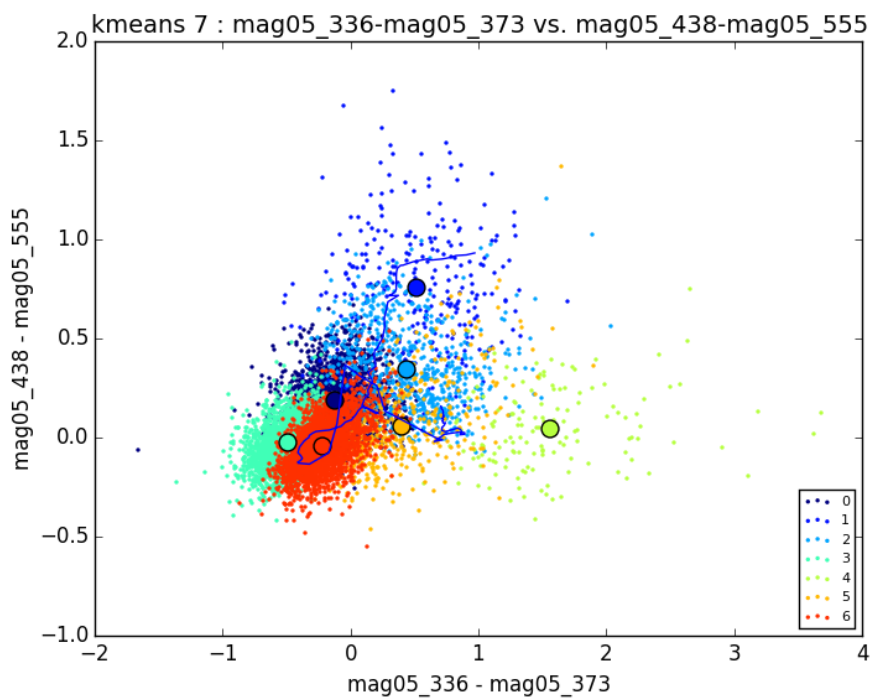Figure 22: kmeans_3d_projection_7cl_mag05_336-mag05_373vsmag05_373-mag05_438.png

Figure 23: kmeans_base_color_7cl_mag05_336-mag05_373vsmag05_438-mag05_555.png
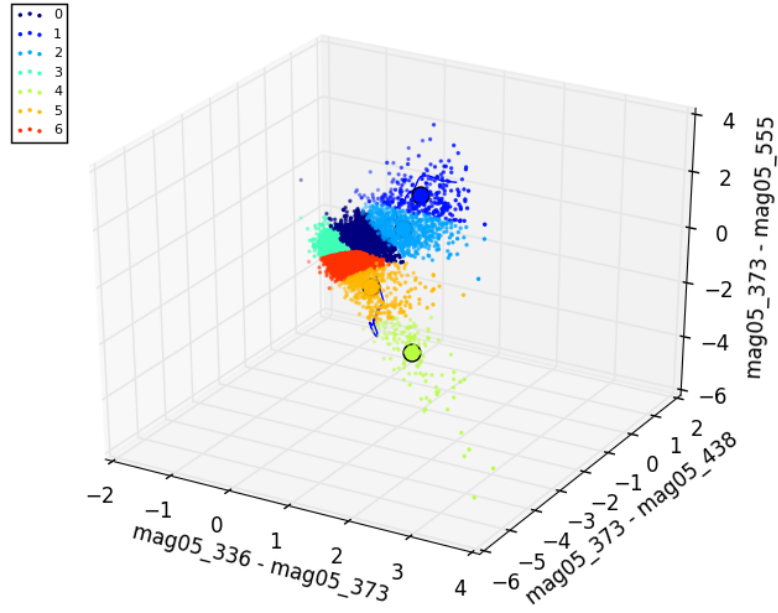
Figure 24: kmeans_3d_7cl_mag05_336-mag05_373vsmag05_373-mag05_438vsmag05_373-mag05_555.png
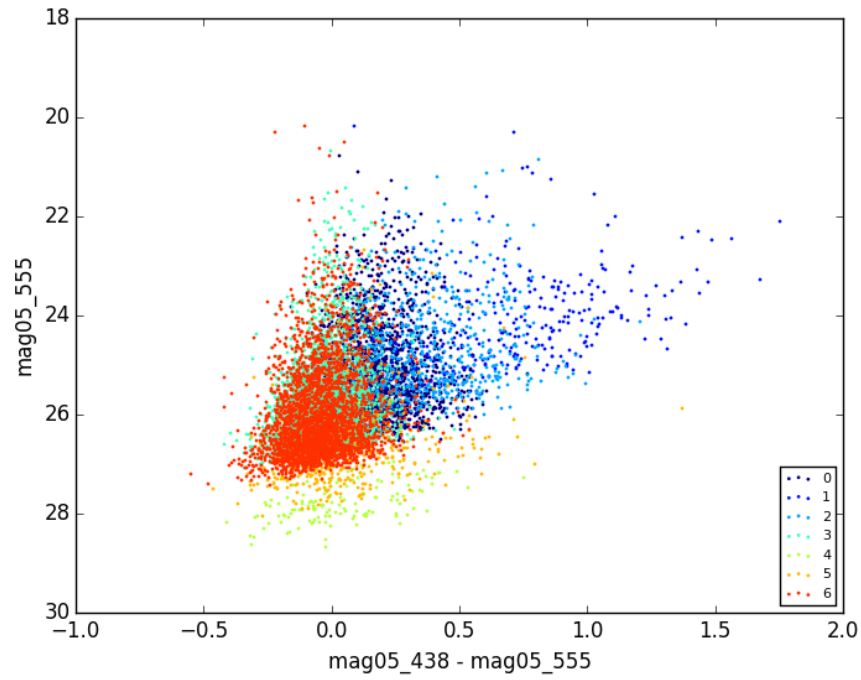

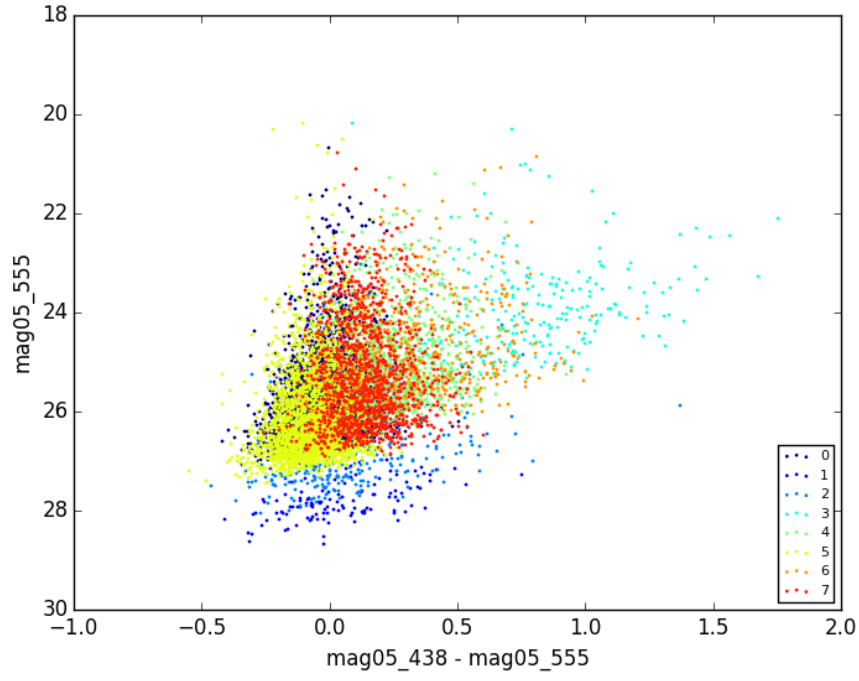Figure 25: kmeans_CMD_7cl_mag05_438-mag05_555vsmag05_555.png

Figure 26: kmeans_CMD_8cl_mag05_438-mag05_555vsmag05_555.png

kmeans results, Ncl=8

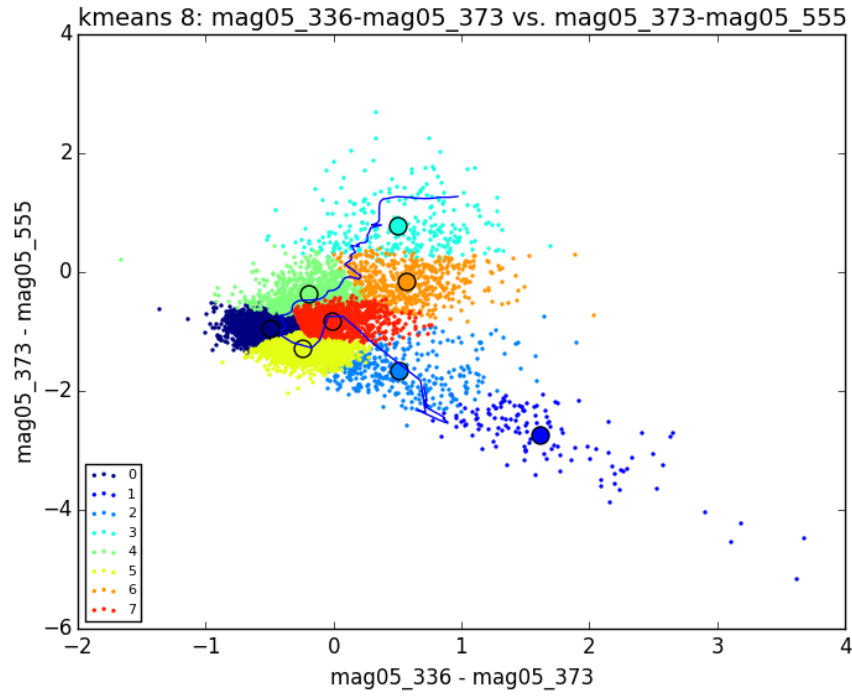| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	2739	0.334463761732	0.368994736594	0.8377	0.2976	1.3669	0.0014	0.2559	-0.490872581234	
2	128	0.334463761732	0.446738910869	2.4991	1.0182	4.8714	0.0215	2.1316	1.61521875	
3	331	0.334463761732	0.269476743964	1.4545	0.6813	2.1316	0.0075	1.091	0.515274924471	
4	273	0.334463761732	0.291843887326	0.6490	0.8119	2.8918	0.0143	0.4895	0.506663003663	0
5	975	0.334463761732	0.291964189523	0.4776	0.4271	2.2934	0.0041	0.2633	-0.190566153846	
6	2434	0.334463761732	0.375018332211	1.0452	0.3123	1.1889	0.0024	0.5012	-0.238544782251	
7	532	0.334463761732	0.268226959952	0.5256	0.5924	2.4575	0.0065	0.5245	0.57412406015	
8	1245	0.334463761732	0.255877100094	0.7587	0.3595	1.1381	0.0036	0.4563	-0.0097453815261	

17

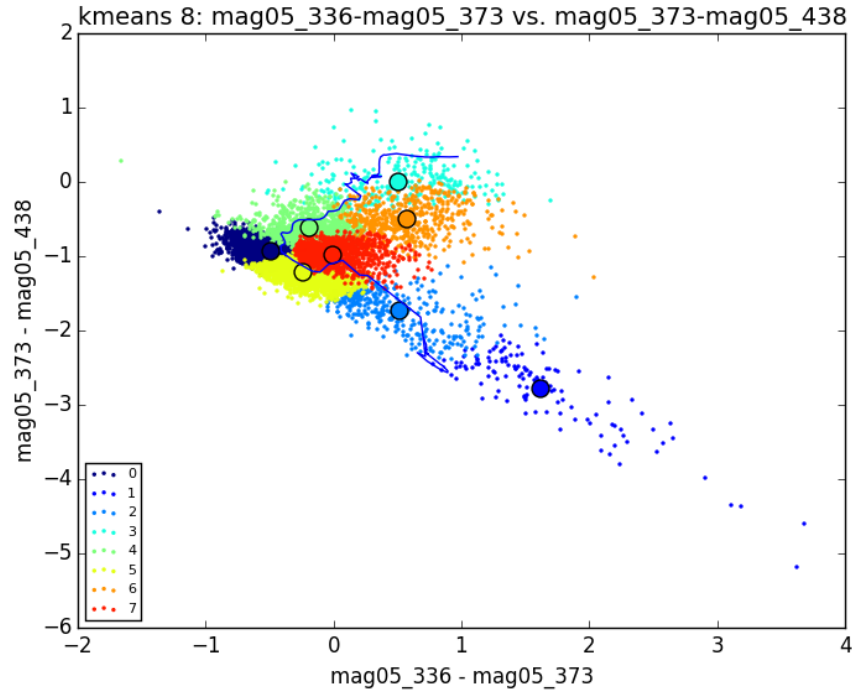Figure 27: kmeans_3d_projection_8cl_mag05_336-mag05_373vsmag05_373-mag05_555.png

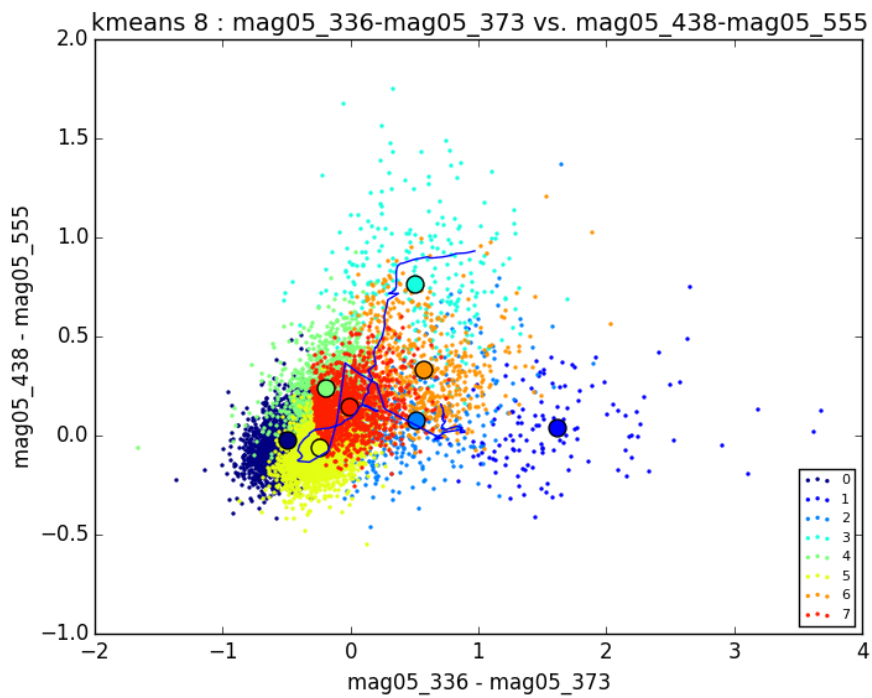Figure 28: kmeans_3d_projection_8cl_mag05_336-mag05_373vsmag05_373-mag05_438.png

Figure 29: kmeans_base_color_8cl_mag05_336-mag05_373vsmag05_438-mag05_555.png
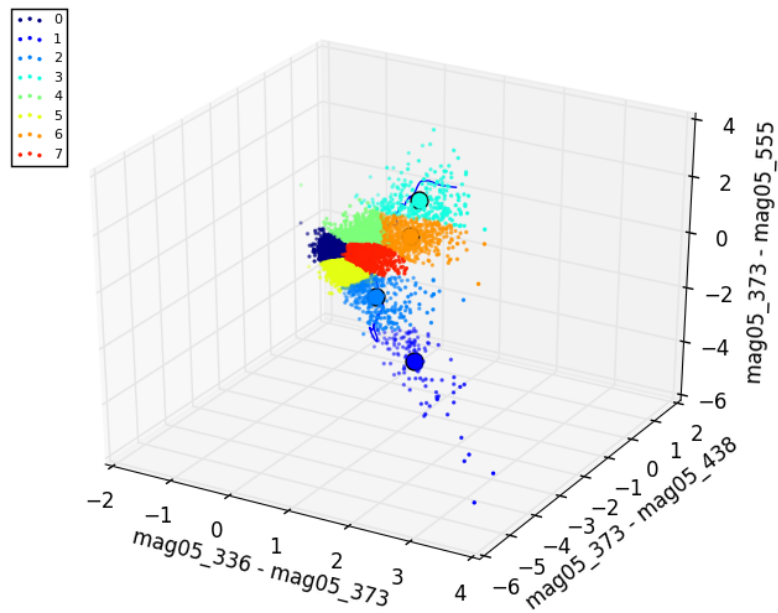

Figure 30: kmeans_3d_8cl_mag05_336-mag05_373vsmag05_373-mag05_438vsmag05_373-mag05_555.png

Meanshift results

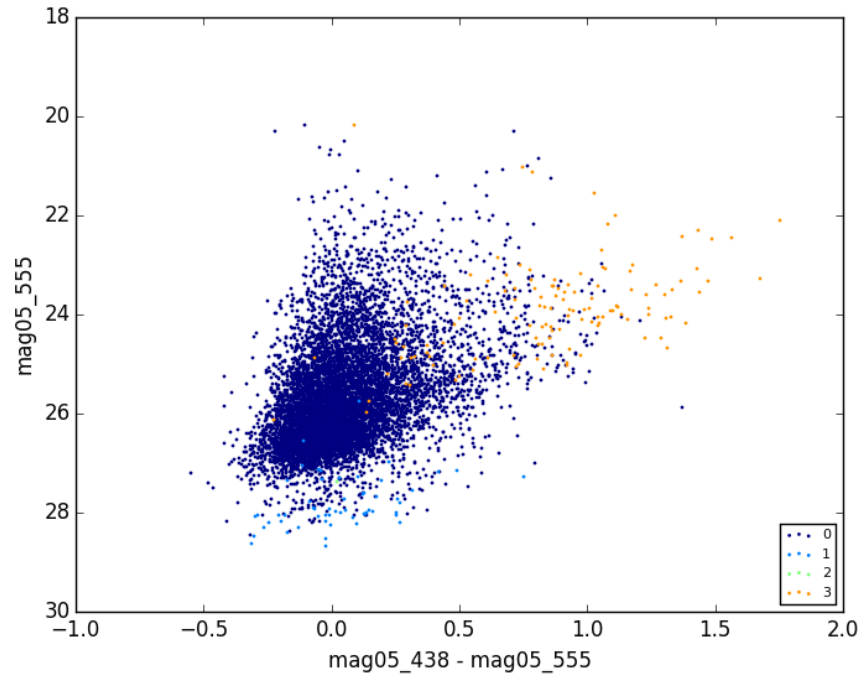| Bandw	Nclust	score	TotObj	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10
0.6022	7	0.551609249487	8657	8210	211	131	62	38	4	1	0	0	0
0.5000	13	0.491611511306	8657	7813	424	234	70	40	33	19	12	6	2
0.5500	10	0.464696416592	8657	8020	241	161	128	42	41	19	3	1	1
0.6200	6	0.560139817282	8657	8210	240	131	62	13	1	0	0	0	0
0.6000	7	0.551609249487	8657	8210	211	131	62	38	4	1	0	0	0
0.6500	4	0.614074138023	8657	8471	129	56	1	0	0	0	0	0	0

Figure 31: meanshift_CMD_4cl_mag05_438-mag05_555vsmag05_555.png

meanshift results, Ncl=4

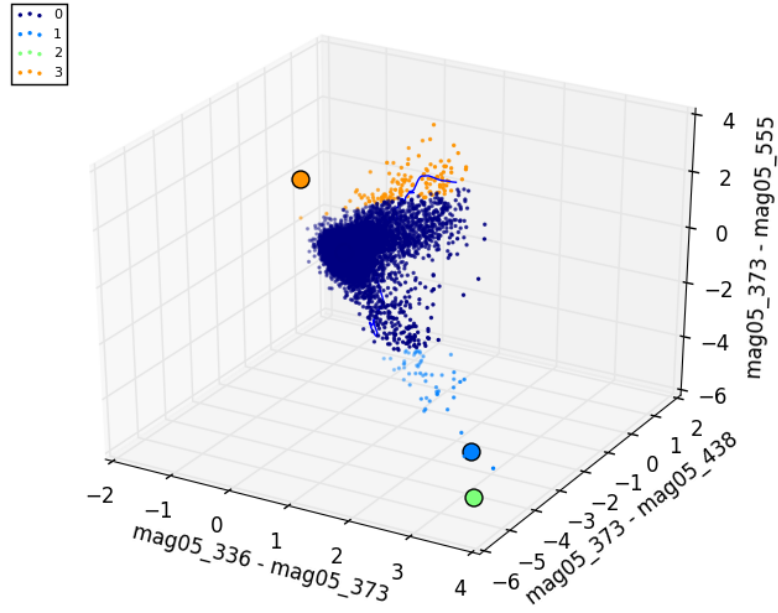| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	8471	0.614074138023	0.614506549294	0.8915	0.8068	4.8908	0.0014	0.553	-0.323815886207	-1
2	56	0.614074138023	0.644969342693	2.8524	0.9489	3.4036	0.0215	2.463	3.2215	
3	1	0.614074138023	0.0	N/A	N/A	N/A	N/A	4.1448	3.621	
4	129	0.614074138023	0.57702752408	0.7417	0.9441	3.9714	0.0223	0.585	-1.659	

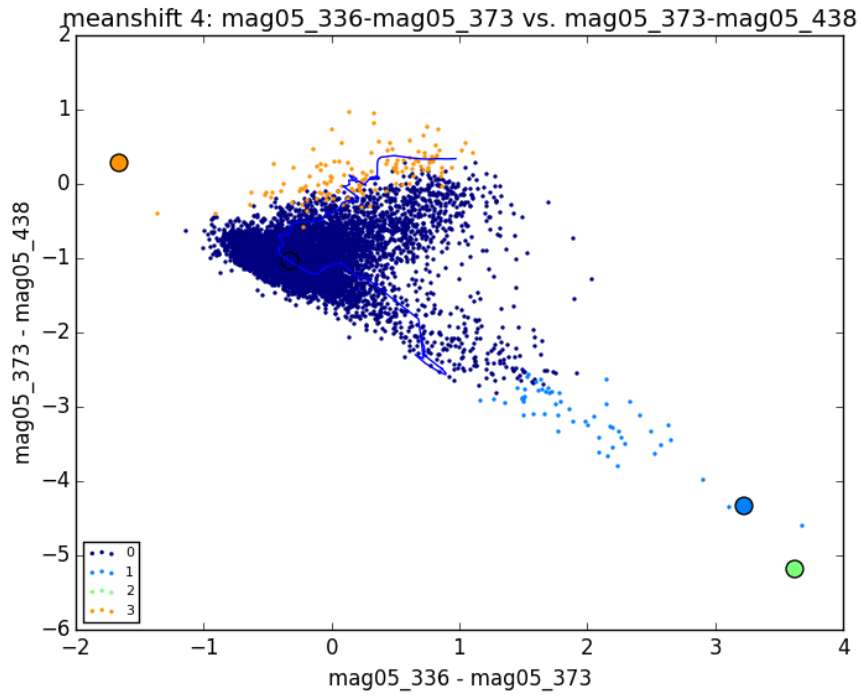Figure 32: meanshift__3d__4cl__mag05__336-mag05__373vsmag05__373-mag05__438vsmag05__373-mag05__555.png

Figure 33: meanshift__3d__projection__4cl__mag05__336-mag05__373vsmag05__373-mag05__438.png
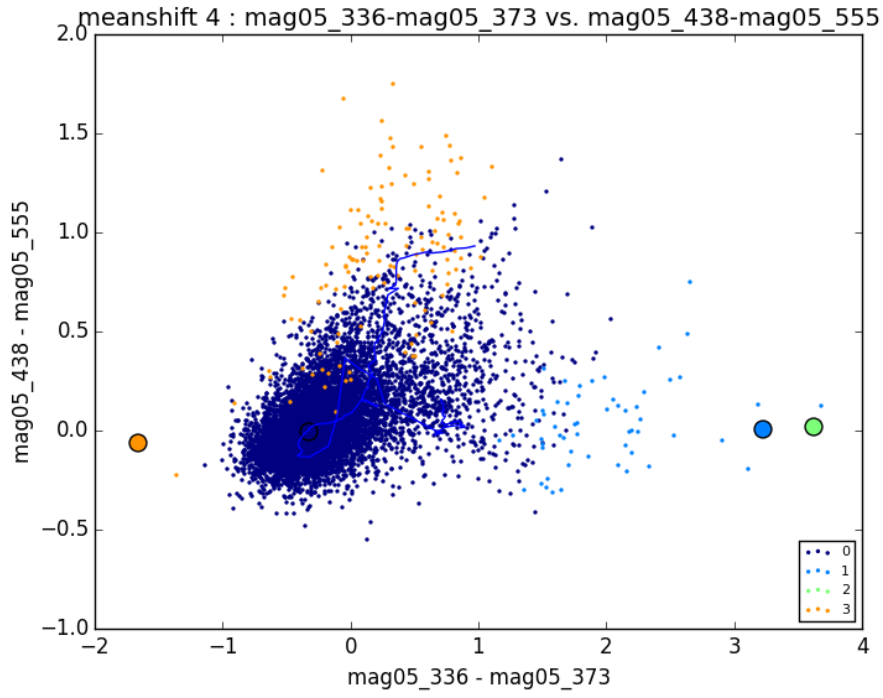
22

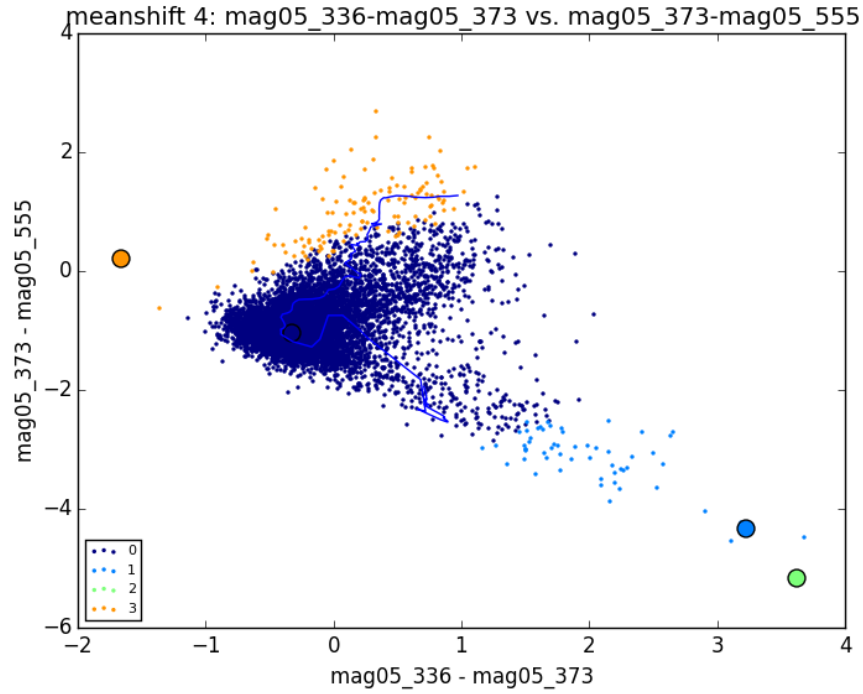Figure 34: meanshift_base_color_4cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

Figure 35: meanshift_3d_projection_4cl_mag05_336-mag05_373vsmag05_373-mag05_555.png
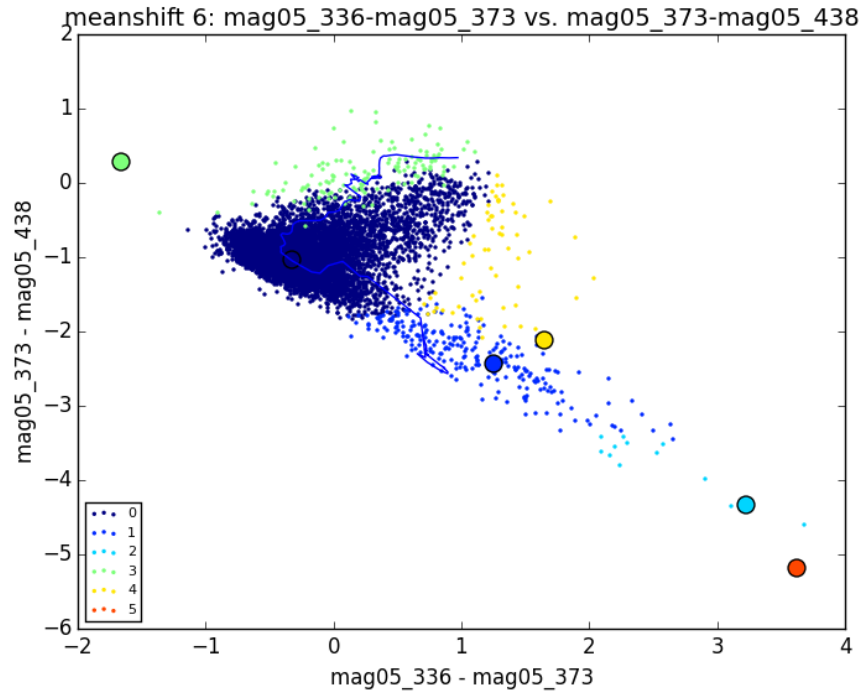
Figure 36: meanshift__3d__projection__6cl__mag05__336-mag05__373vsmag05__373-mag05__438.png

meanshift results, Ncl=6

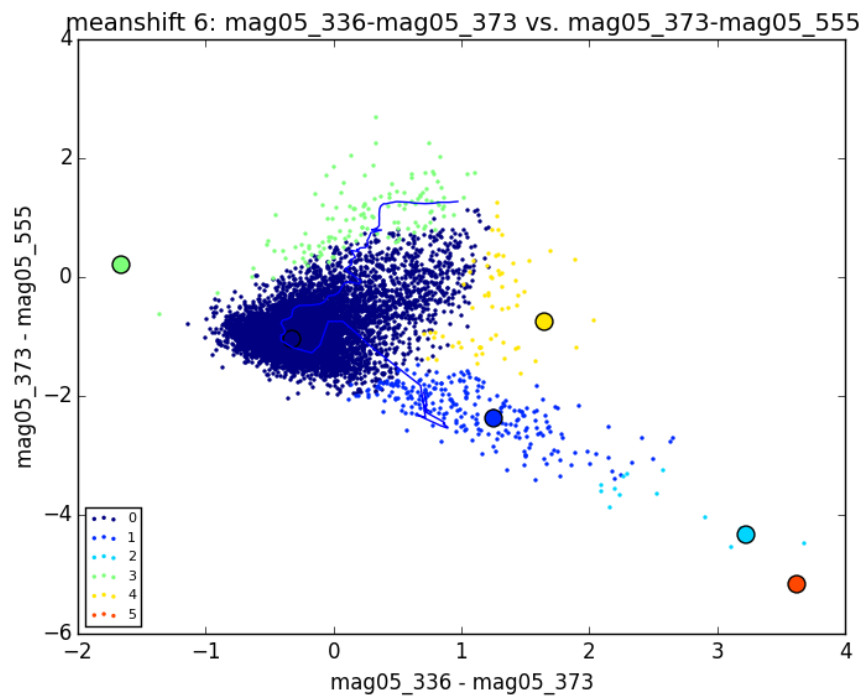| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	8210	0.560139817282	0.566847650954	0.8535	0.7275	3.9416	0.0014	0.4963	-0.32927887463	-1.0
2	240	0.560139817282	0.449337549095	2.0134	0.9493	3.0870	0.0215	1.6466	1.25176	
3	13	0.560139817282	0.455971709562	3.4562	0.9090	2.1696	0.1062	3.0255	3.2215	
4	131	0.560139817282	0.546171715597	0.7401	0.9395	3.9714	0.0223	0.5818	-1.659	
5	62	0.560139817282	0.161194276231	1.1314	1.2351	3.5168	0.0322	1.1285	1.648	
6	1	0.560139817282	0.0	N/A	N/A	N/A	N/A	4.1448	3.621	

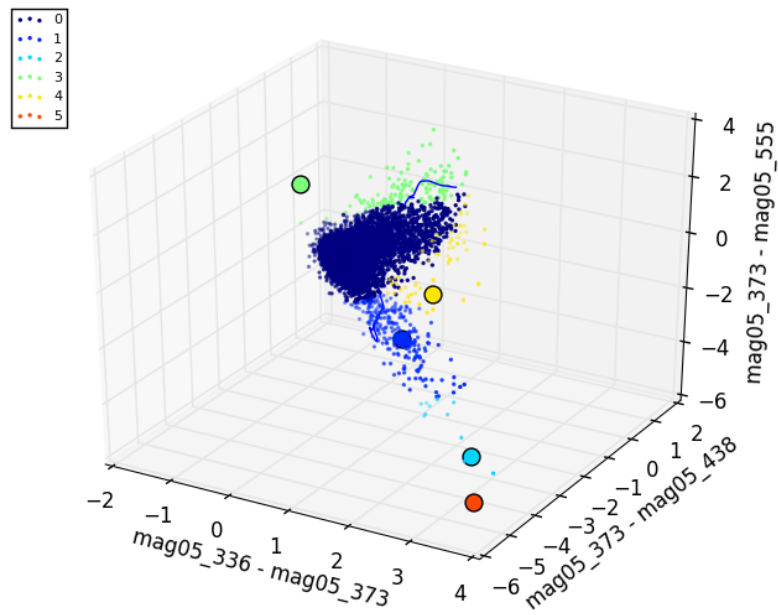Figure 37: meanshift__3d__projection__6cl__mag05__336-mag05__373vsmag05__373-mag05__555.png

Figure 38: meanshift__3d__6cl__mag05__336-mag05__373vsmag05__373-mag05__438vsmag05__373-mag05__555.png
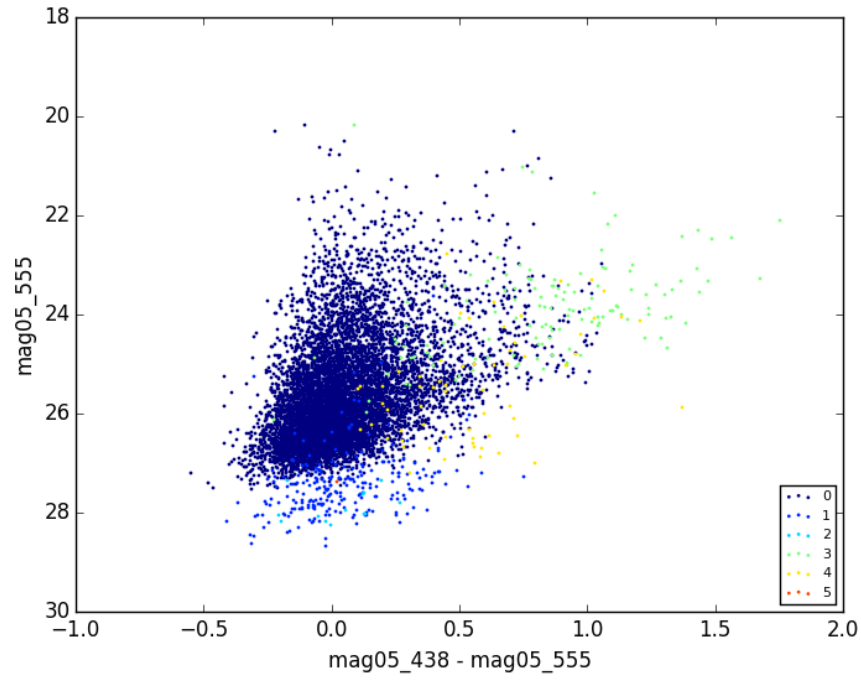
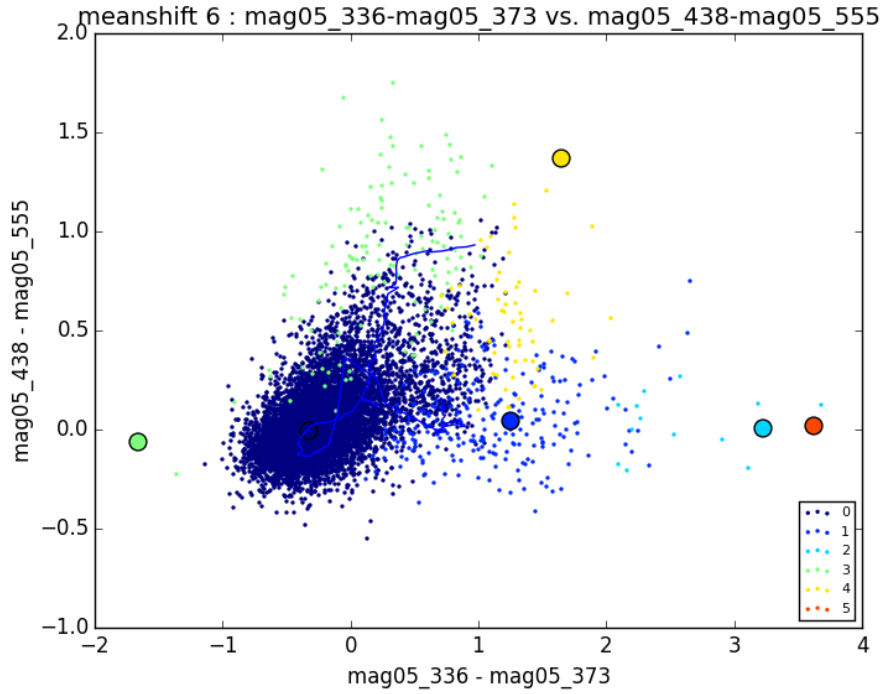Figure 39: meanshift_CMD_6cl_mag05_438-mag05_555vsmag05_555.png

Figure 40: meanshift_base_color_6cl_mag05_336-mag05_373vsmag05_438-mag05_555.png
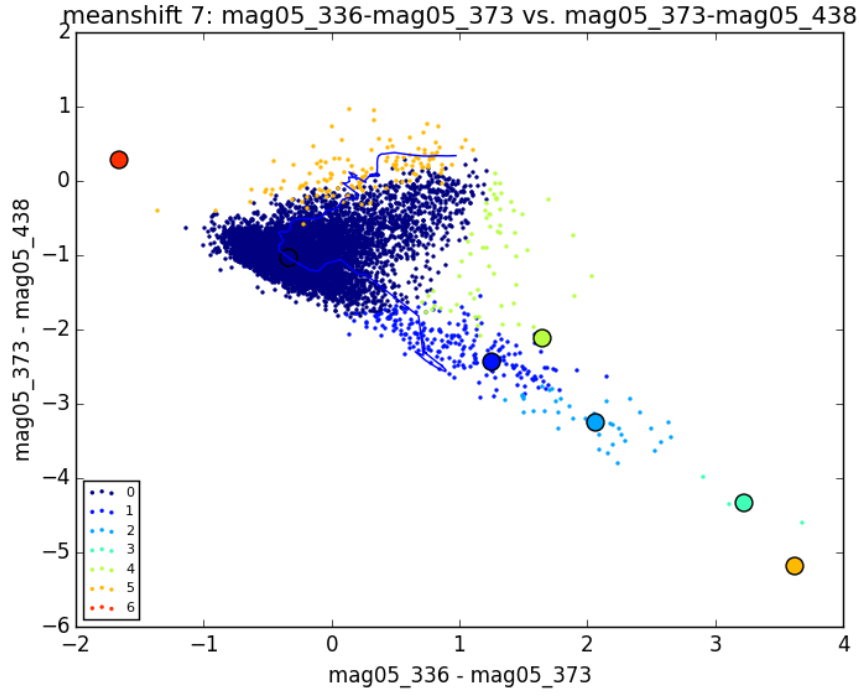
Figure 41: meanshift__3d__projection__7cl__mag05__336-mag05__373vsmag05__373-mag05__438.png

meanshift results, Ncl=7

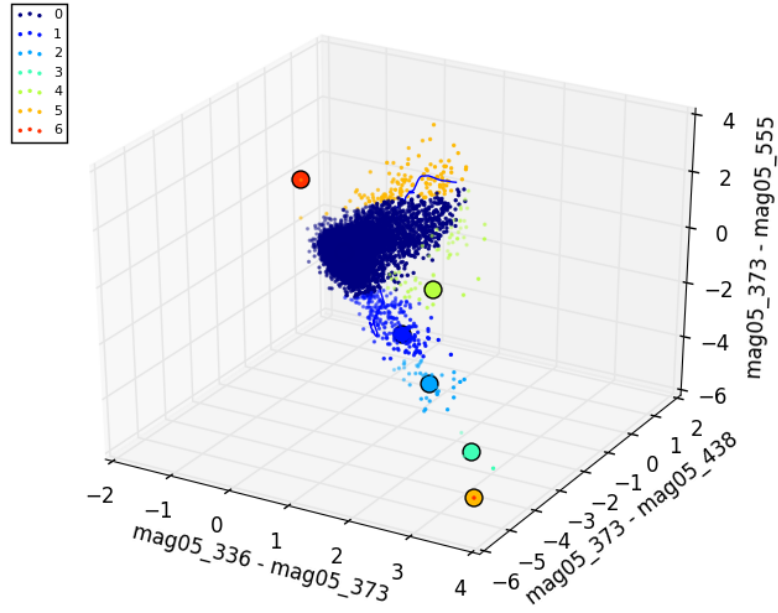| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	8210	0.551609249487	0.55731164229	0.8535	0.7275	3.9416	0.0014	0.4963	-0.33250192147	-1
2	211	0.551609249487	0.461454777572	1.8901	0.7630	2.2388	0.0227	1.5193	1.25176	
3	38	0.551609249487	0.552426019333	2.8580	0.6819	1.4979	0.0215	2.4598	2.06886363636	-3
4	4	0.551609249487	0.456971178995	3.9983	0.6311	1.0834	0.3157	3.5654	3.2215	
5	62	0.551609249487	0.129309086264	1.1314	1.2351	3.5168	0.0322	1.1285	1.648	
6	1	0.551609249487	0.0	N/A	N/A	N/A	N/A	4.1448	3.621	
7	131	0.551609249487	0.546171715597	0.7401	0.9395	3.9714	0.0223	0.5818	-1.659	
1	8210	0.551609249487	0.55731164229	0.8535	0.7275	3.9416	0.0014	0.4963	-0.333205390023	-1
2	211	0.551609249487	0.461454777572	1.8901	0.7630	2.2388	0.0227	1.5193	1.25176	
3	38	0.551609249487	0.552426019333	2.8580	0.6819	1.4979	0.0215	2.4598	2.06886363636	-3
4	4	0.551609249487	0.456971178995	3.9983	0.6311	1.0834	0.3157	3.5654	3.2215	
5	62	0.551609249487	0.129309086264	1.1314	1.2351	3.5168	0.0322	1.1285	1.648	
6	131	0.551609249487	0.546171715597	0.7401	0.9395	3.9714	0.0223	0.5818	-1.659	
7	1	0.551609249487	0.0	N/A	N/A	N/A	N/A	4.1448	3.621	

27

Figure 42: meanshift__3d__7cl__mag05__336-mag05__373vsmag05__373-mag05__438vsmag05__373-mag05__555.png
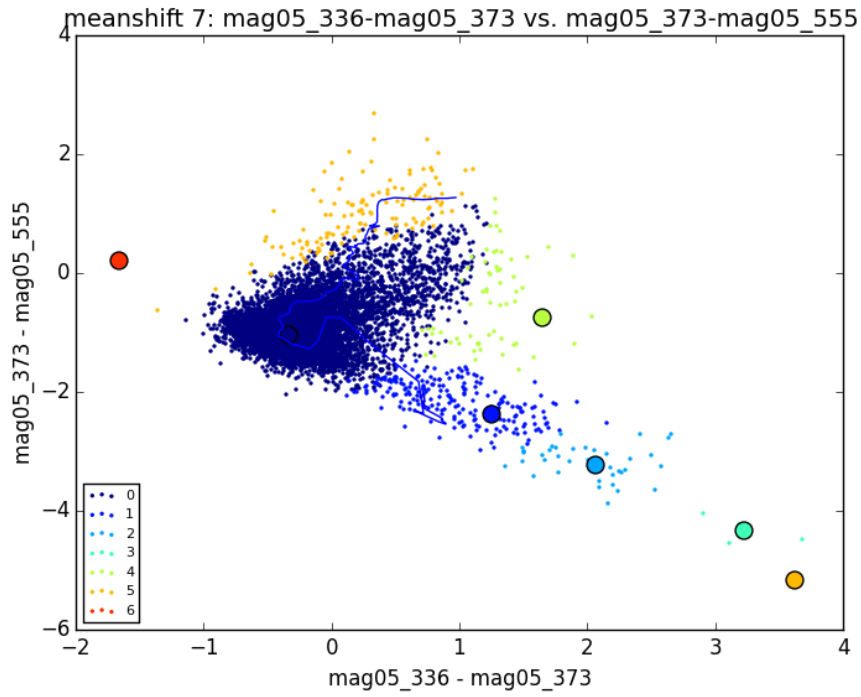

Figure 43: meanshift__3d__projection__7cl__mag05__336-mag05__373vsmag05__373-mag05__555.png
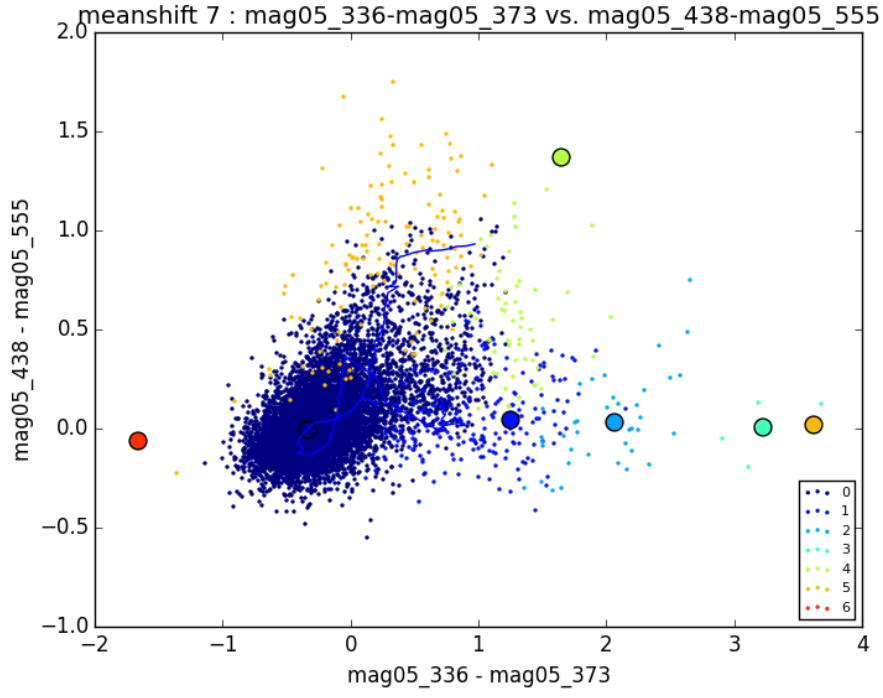
Figure 44: meanshift_base_color_7cl_mag05_336-mag05_373vsmag05_438-mag05_555.png
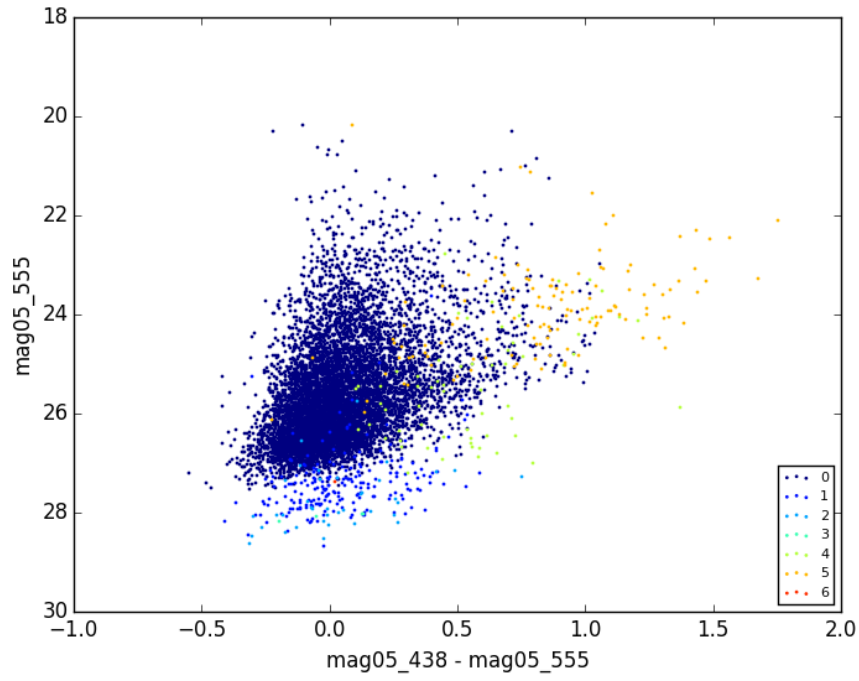

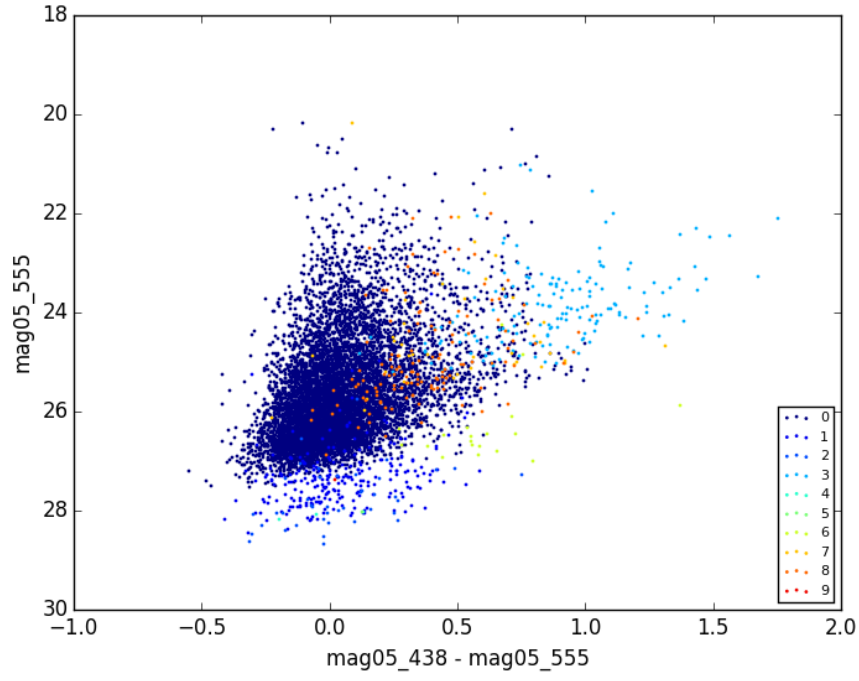Figure 45: meanshift_CMD_7cl_mag05_438-mag05_555vsmag05_555.png

Figure 46: meanshift_CMD_10cl_mag05_438-mag05_555vsmag05_555.png

meanshift results, Ncl=10

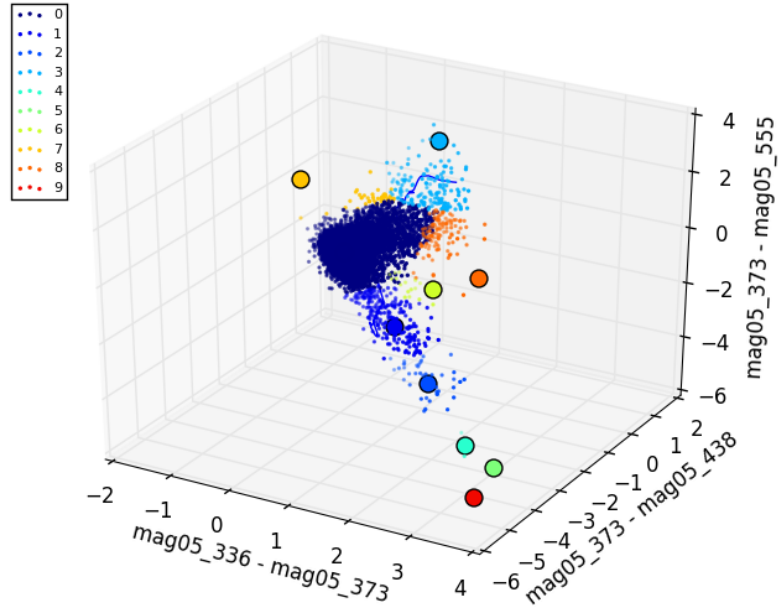| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	8020	0.464696416592	0.47480345311	0.8546	0.6771	3.0569	0.0014	0.4714	-0.338906283092	-1
2	241	0.464696416592	0.239047808462	1.8267	0.7904	2.0733	0.0173	1.4521	1.07784375	-2
3	41	0.464696416592	0.523910225562	2.8311	0.7090	1.7035	0.0215	2.4375	2.04442857143	-3
4	161	0.464696416592	0.306914957853	0.7643	0.7444	2.5511	0.0274	0.4969	0.4798	
5	3	0.464696416592	0.341035545239	3.9014	0.4897	0.6420	0.3157	3.455	3.068	-4
6	1	0.464696416592	0.0	N/A	N/A	N/A	N/A	3.8776	3.682	
7	19	0.464696416592	0.592237983884	1.3808	0.4846	1.0800	0.0832	1.2471	1.648	
8	42	0.464696416592	0.512046719778	0.4000	0.5661	2.0266	0.0223	0.3999	-1.659	
9	128	0.464696416592	0.411464411202	0.7333	0.6593	2.4322	0.0182	0.7124	2.033	
10	1	0.464696416592	0.0	N/A	N/A	N/A	N/A	4.1448	3.621	

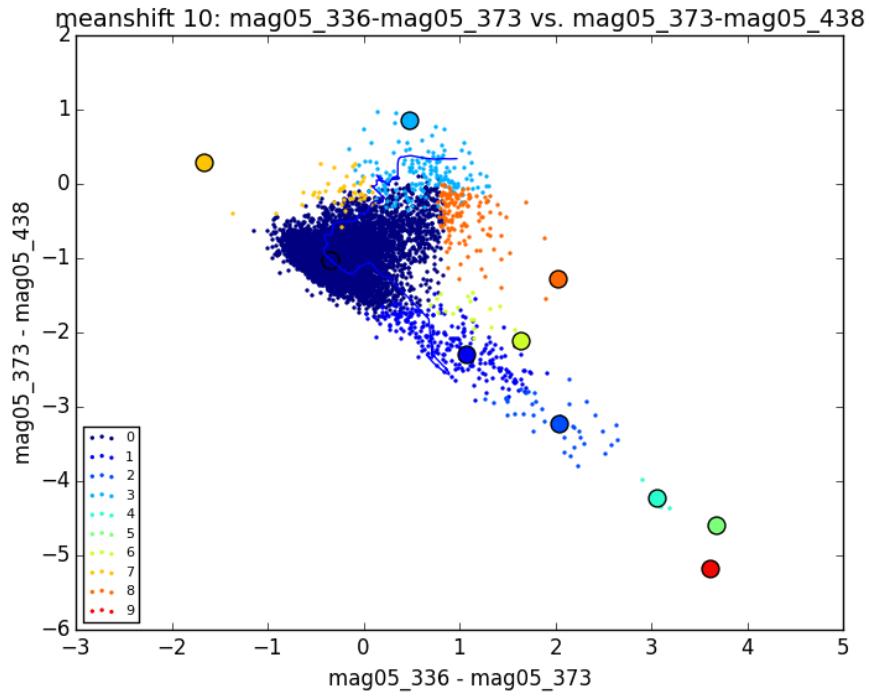Figure 47: meanshift__3d__10cl__mag05__336-mag05__373vsmag05__373-mag05__438vsmag05__373-mag05__555.png

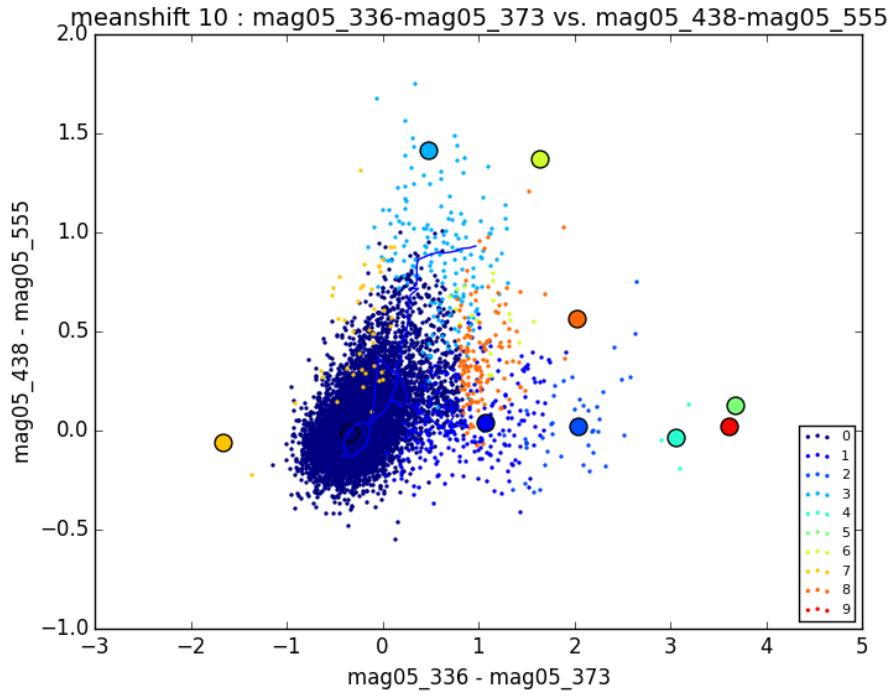Figure 48: meanshift__3d__projection__10cl__mag05__336-mag05__373vsmag05__373-mag05__438.png

31

Figure 49: meanshift__base__color__10cl__mag05__336-mag05__373vsmag05__438-mag05__555.png
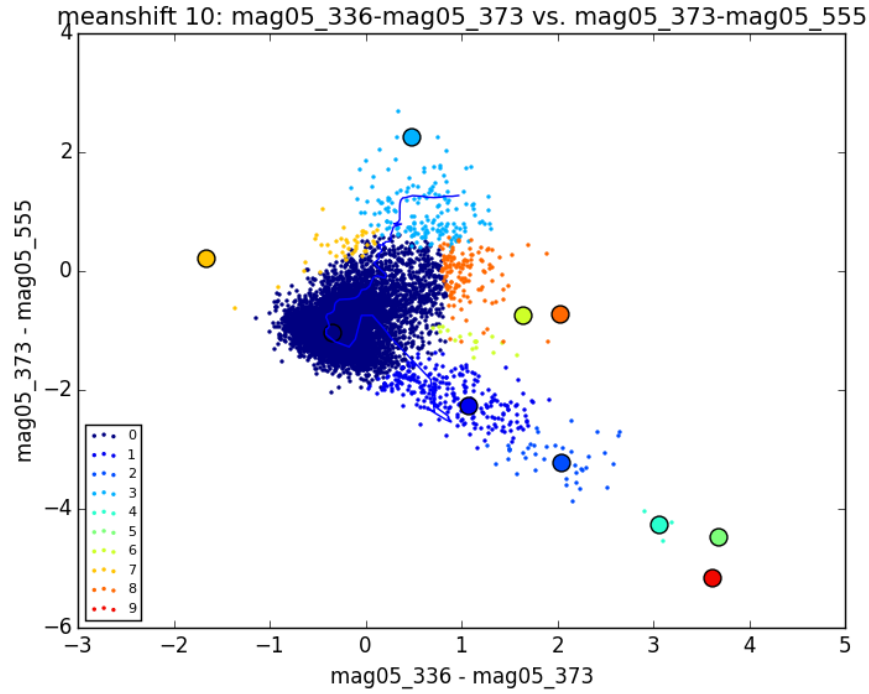

Figure 50: meanshift__3d__projection__10cl__mag05__336-mag05__373vsmag05__373-mag05__555.png
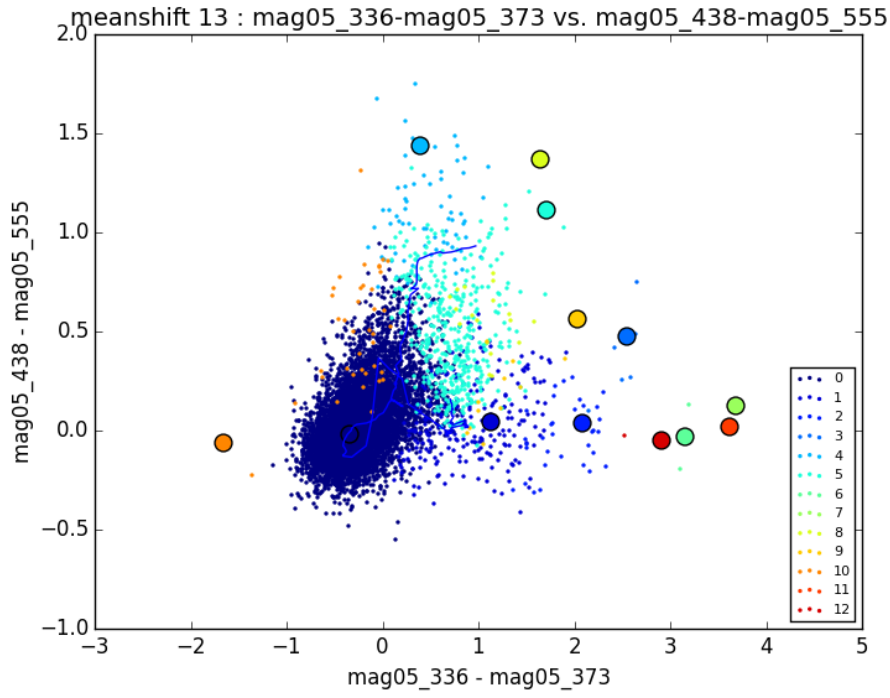
Figure 51: meanshift_base_color_13cl_mag05_336-mag05_373vsmag05_438-mag05_555.png

meanshift results, Ncl=13

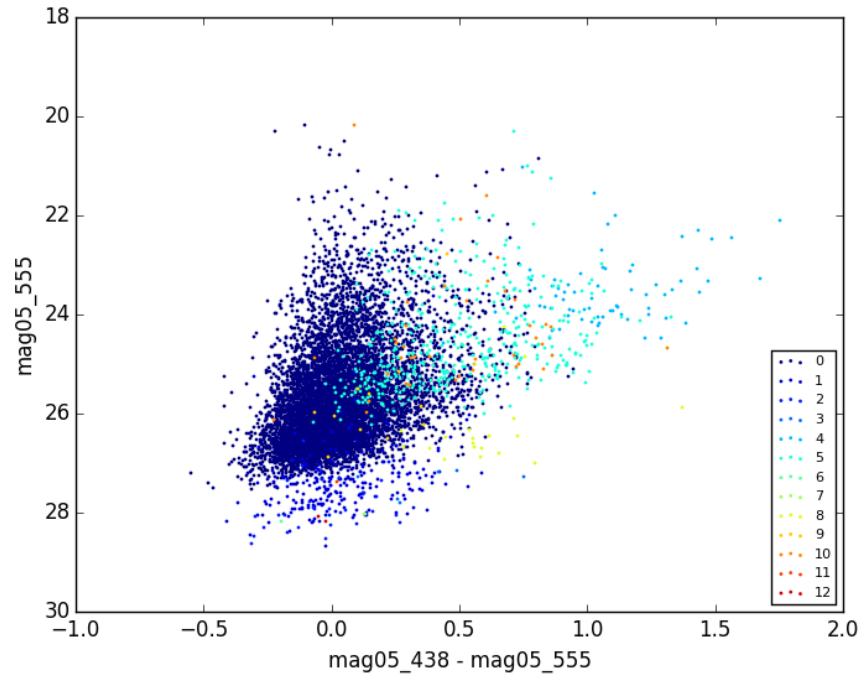| Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	7813	0.491611511306	0.512922741772	0.8640	0.6309	2.8876	0.0014	0.4534	-0.345817630332	-
2	234	0.491611511306	0.232499537205	1.8419	0.7844	2.0367	0.0227	1.4688	1.12314457831	-
3	33	0.491611511306	0.24459411712	2.8174	0.6103	1.5341	0.0215	2.3978	2.08415789474	-
4	6	0.491611511306	0.313235582405	2.8729	0.5856	1.2336	0.2121	2.6159	2.55	
5	70	0.491611511306	0.45657265128	0.9094	0.6782	2.1169	0.0303	0.5668	0.38975	
6	424	0.491611511306	0.28338955764	0.5569	0.6862	2.1370	0.0065	0.5154	1.715	
7	2	0.491611511306	0.487860688391	4.0062	0.3157	0.3157	0.3157	3.5459	3.1485	
8	1	0.491611511306	0.0	N/A	N/A	N/A	N/A	3.8776	3.682	
9	19	0.491611511306	0.441236945584	1.3808	0.4846	1.0800	0.0832	1.2471	1.648	
10	12	0.491611511306	0.211208984378	1.1367	0.6662	1.2985	0.1185	1.1097	2.033	
11	40	0.491611511306	0.496572569867	0.4029	0.5699	2.0266	0.0223	0.4029	-1.659	
12	1	0.491611511306	0.0	N/A	N/A	N/A	N/A	4.1448	3.621	
13	2	0.491611511306	0.0928344352864	3.5014	0.6545	0.6545	0.6545	3.0905	2.907	

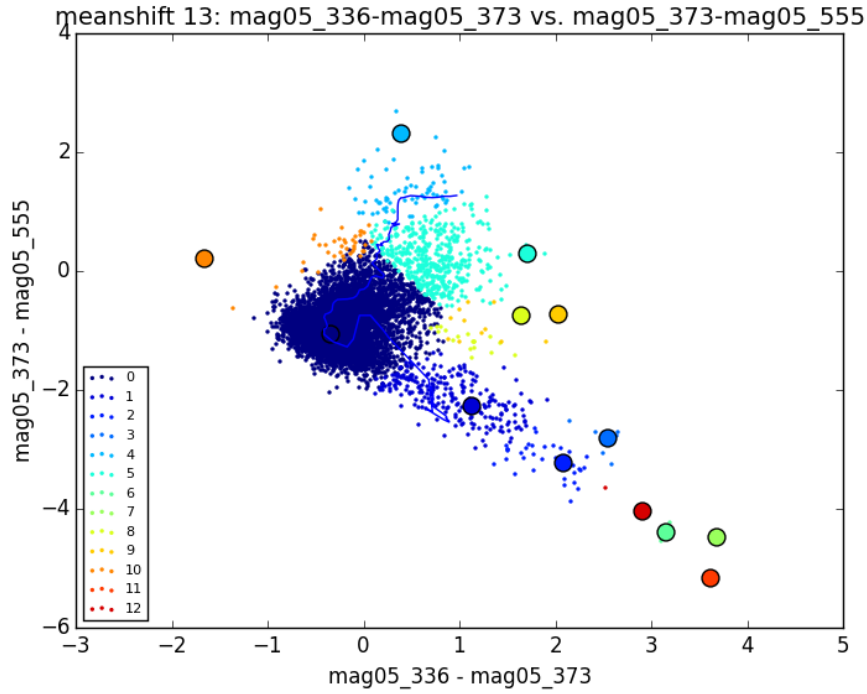Figure 52: meanshift__CMD__13cl__mag05__438-mag05__555vsmag05__555.png

Figure 53: meanshift__3d__projection__13cl__mag05__336-mag05__373vsmag05__373-mag05__555.png
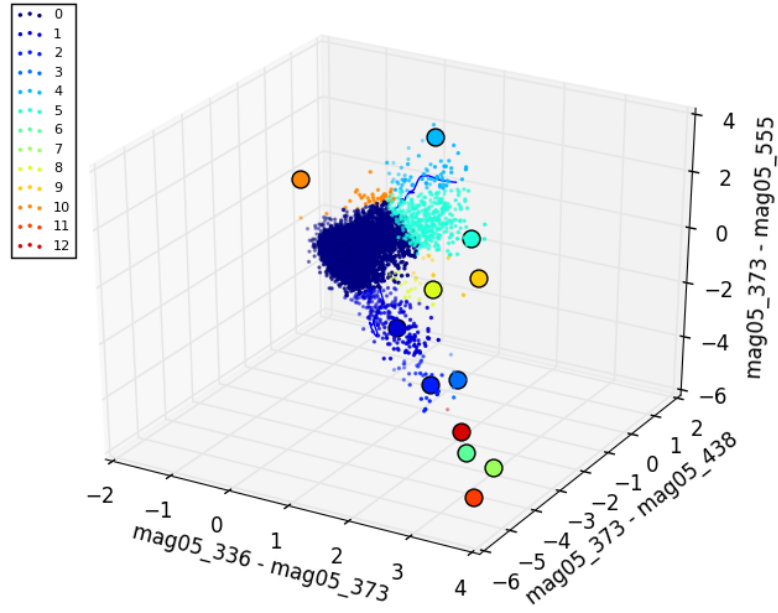
34

Figure 54: meanshift_3d_13cl_mag05_336-mag05_373vsmag05_373-mag05_438vsmag05_373-mag05_555.png
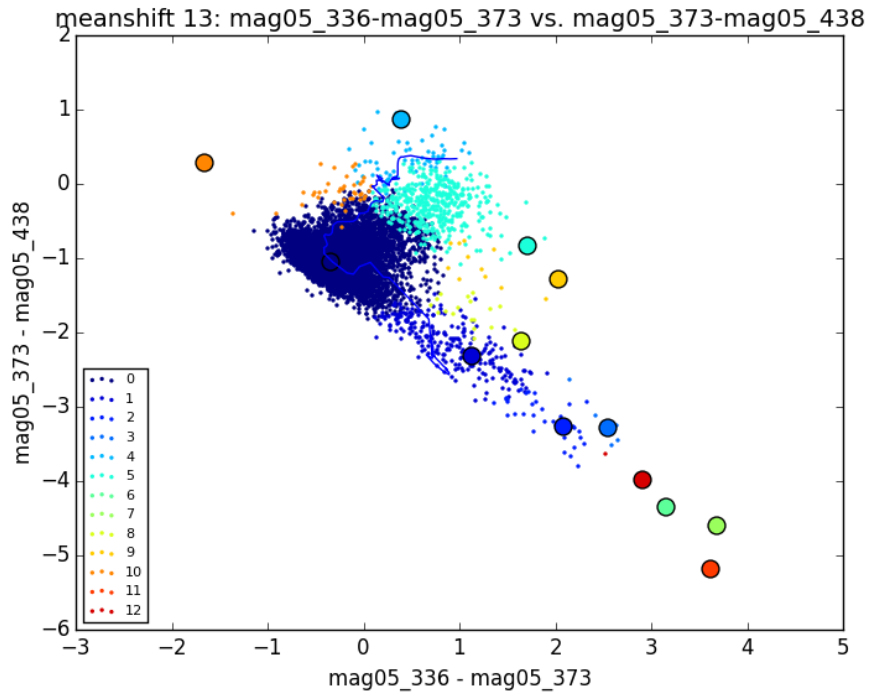

Figure 55: meanshift_3d_projection_13cl_mag05_336-mag05_373vsmag05_373-mag05_438.png