

## K-means results

Nclust	inertia	score	TotObj	N1	N2	N3	N4	N5	N6	N7	N8
3	7991.61905877	0.423354475805	41317	18711	16880	5726	0	0	0	0	0
4	6044.68661401	0.375867883437	41317	16156	11183	10439	3539	0	0	0	0
5	5072.18540174	0.342639494809	41317	13216	12121	6875	6722	2383	0	0	0
6	4335.94611731	0.358385586843	41317	12727	10597	6307	5535	3744	2407	0	0
7	3780.45252571	0.338459070646	41317	10804	9524	8091	4092	3378	3371	2057	0
8	3379.28190245	0.342771778149	41317	8762	8590	8303	4492	3784	2782	2757	1847

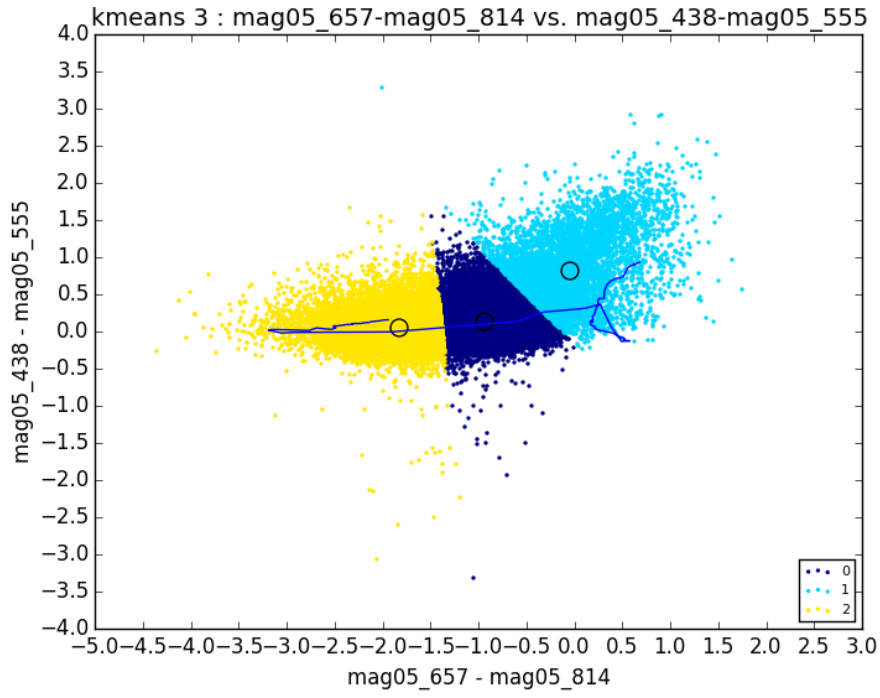


Figure 1: kmeans\_color\_3cl\_mag05\_657-mag05\_814vsmag05\_438-mag05\_555.png

### kmeans results, Ncl=3

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	18711	0.423354475805	0.421203506449	0.7208	0.4764	4.8872	0.0000	0.5965	-0.936166319277
2	5726	0.423354475805	0.327633284985	0.7351	0.7777	4.6768	0.0000	0.6232	-0.0422221446036
3	16880	0.423354475805	0.458209115986	1.3246	0.4934	4.7581	0.0000	0.9832	-1.82550977488

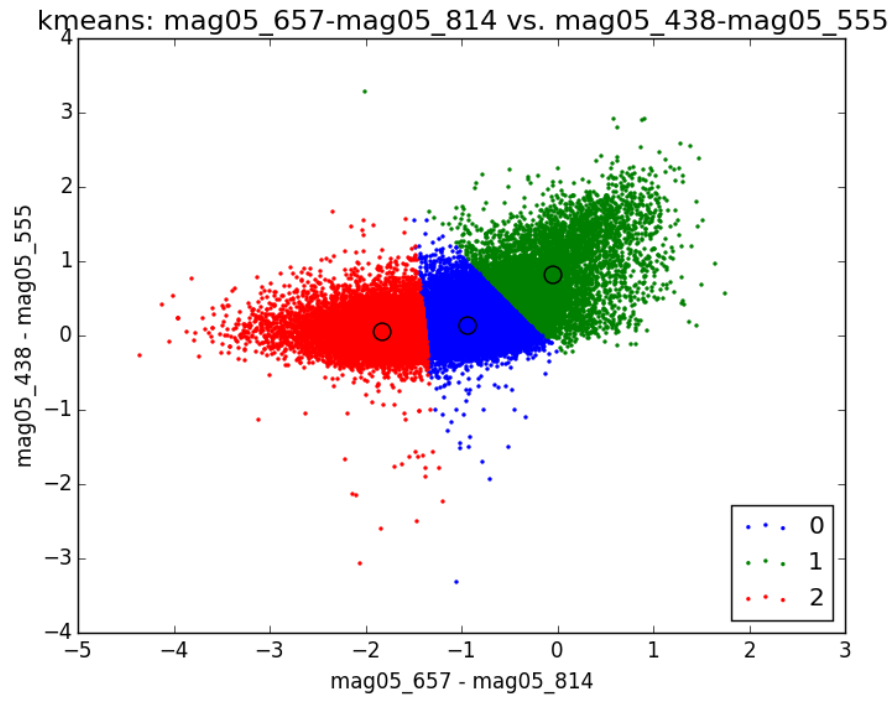


Figure 2: kmeans\_col\_3cl\_mag05\_657-mag05\_814vsmag05\_438-mag05\_555.png

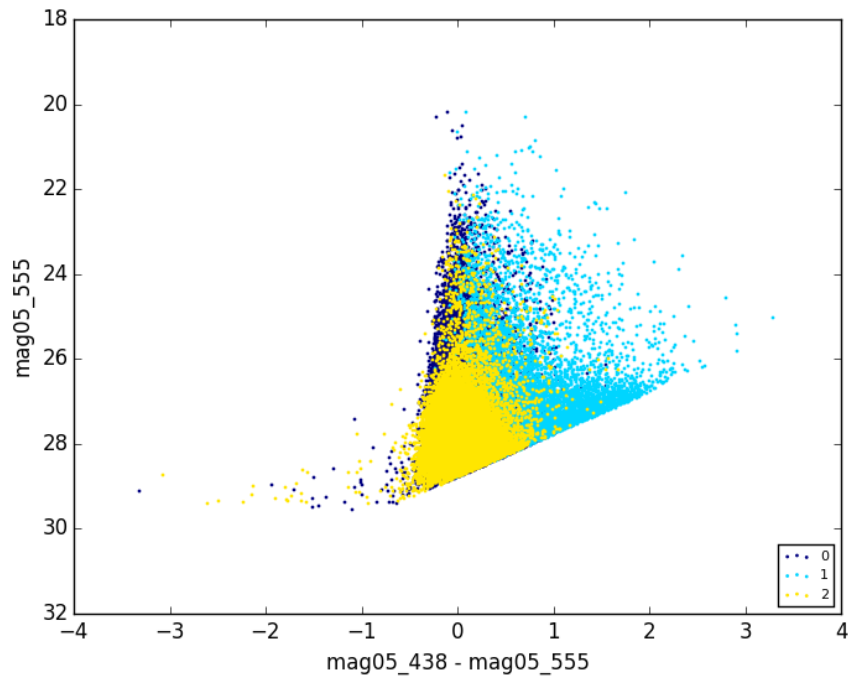


Figure 3: kmeans\_CMD\_3cl\_mag05\_438-mag05\_555vsmag05\_555.png

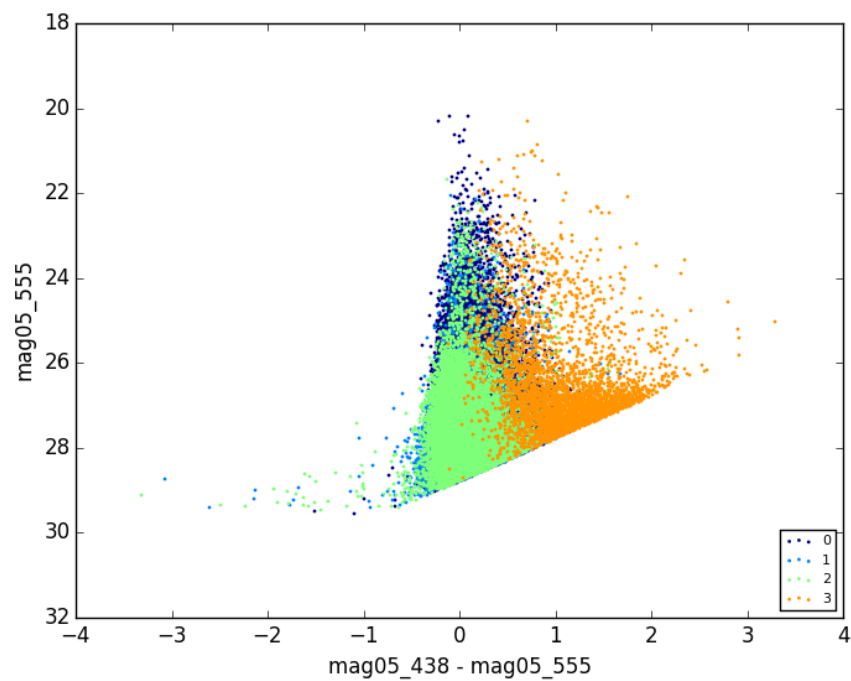


Figure 4: kmeans\_CMD\_4cl\_mag05\_438-mag05\_555vsmag05\_555.png

### kmeans results, Ncl=4

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	11183	0.375867883437	0.354743396339	0.5275	0.4697	2.8092	0.0000	0.4896	-0.607335598677
2	10439	0.375867883437	0.396982451681	1.4518	0.4514	4.7581	0.0000	1.0657	-2.01587834084
3	16156	0.375867883437	0.385380298408	0.9532	0.3831	4.9185	0.0000	0.7303	-1.30868767022
4	3539	0.375867883437	0.336912694135	0.8636	0.7549	4.6768	0.0010	0.6372	0.114656400113

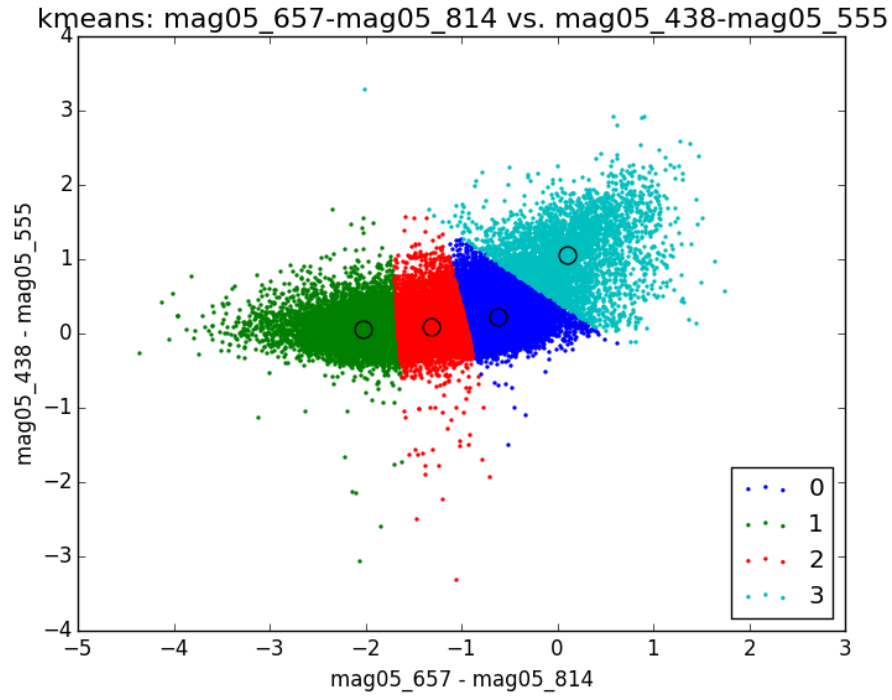


Figure 5: kmeans\_col\_4cl\_mag05\_657-mag05\_814vsmag05\_438-mag05\_555.png

### kmeans results, Ncl=5

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	6875	0.342639494809	0.352452768505	1.5478	0.4384	4.7581	0.0000	1.1344	-2.155208	0
2	6722	0.342639494809	0.287498627597	0.4659	0.5011	2.5816	0.0000	0.4658	-0.365907468015	0
3	13216	0.342639494809	0.361486087304	1.1010	0.3473	4.9185	0.0000	0.8202	-1.5294312954	0
4	12121	0.342639494809	0.343020032516	0.7162	0.3736	3.6486	0.0000	0.5777	-0.9593257157	0
5	2383	0.342639494809	0.363412297492	0.9750	0.7054	4.6768	0.0010	0.6452	0.228560218212	

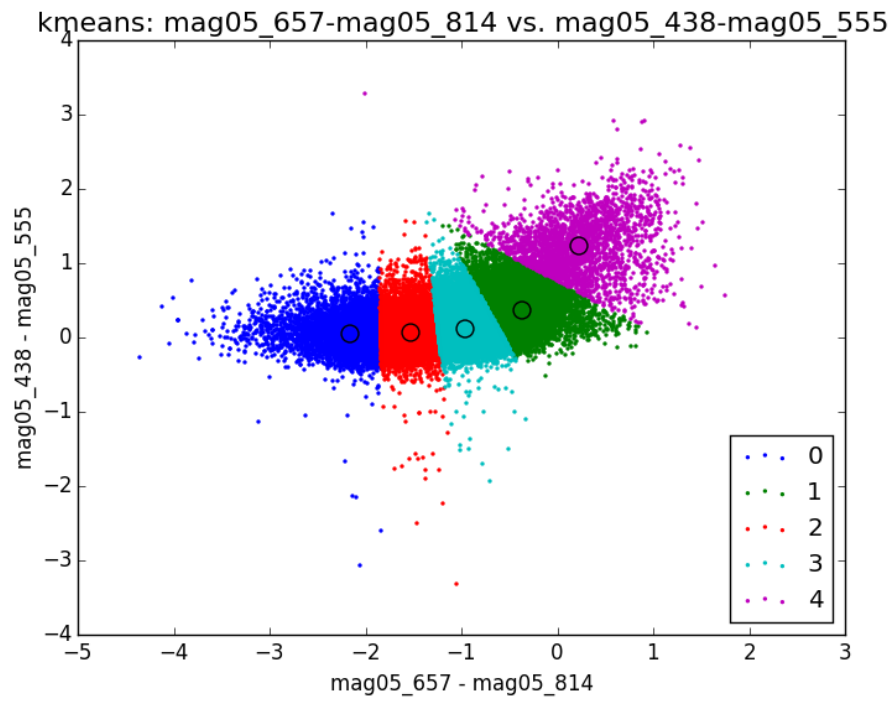


Figure 6: kmeans\_col\_5cl\_mag05\_657-mag05\_814vsmag05\_438-mag05\_555.png

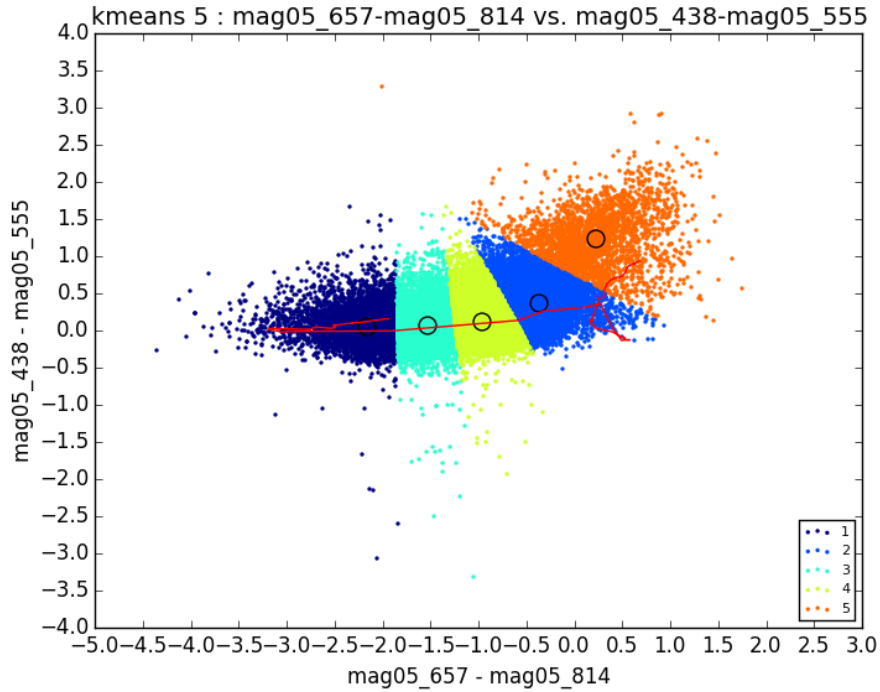


Figure 7: kmeans\_color\_5cl\_mag05\_657-mag05\_814vsmag05\_438-mag05\_555.png

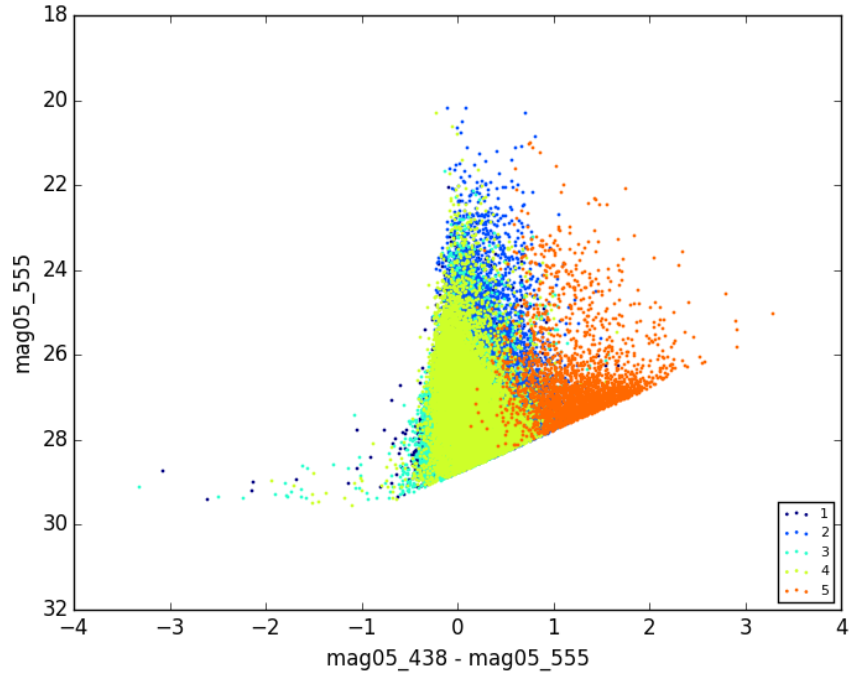


Figure 8: kmeans\_CMD\_5cl\_mag05\_438-mag05\_555vsmag05\_555.png

### kmeans results, Ncl=6

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	2407	0.358385586843	0.380301095235	0.9550	0.6799	3.0172	0.0010	0.6194	0.24472746157
2	5535	0.358385586843	0.354495437292	0.3629	0.4148	1.6480	0.0000	0.3605	-0.312792411924
3	10597	0.358385586843	0.397160189111	0.7231	0.3094	3.7113	0.0000	0.5403	-0.990776351798
4	12727	0.358385586843	0.357997963499	1.1229	0.3334	3.6571	0.0000	0.8315	-1.56398287106
5	3744	0.358385586843	0.266445914106	0.8086	0.4433	3.2643	0.0000	0.8007	-0.872014423077
6	6307	0.358385586843	0.343646773754	1.5662	0.4366	4.7581	0.0000	1.1481	-2.18199476772

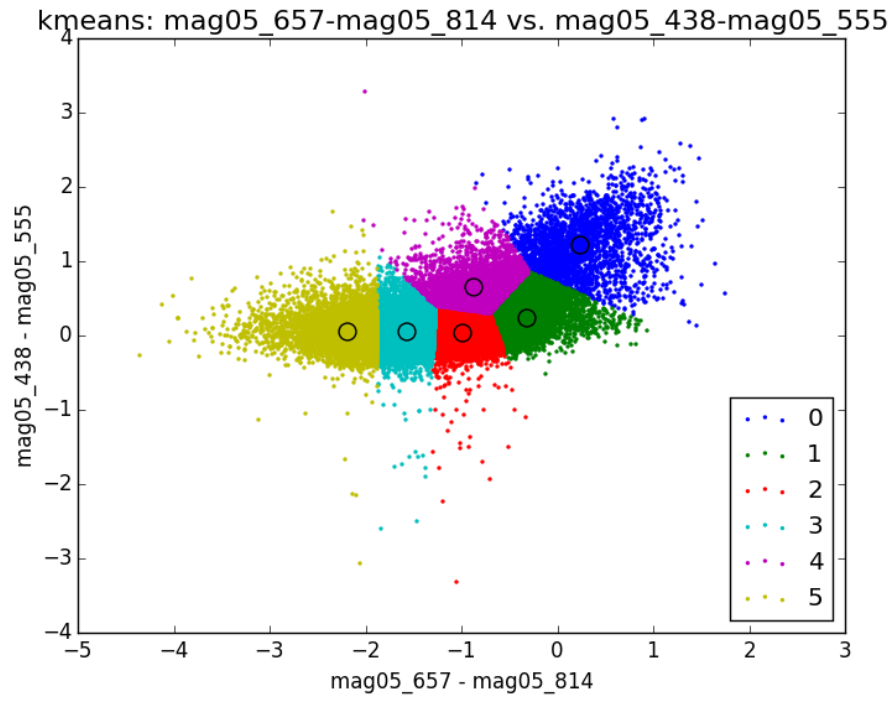


Figure 9: kmeans\_col\_6cl\_mag05\_657-mag05\_814vsmag05\_438-mag05\_555.png

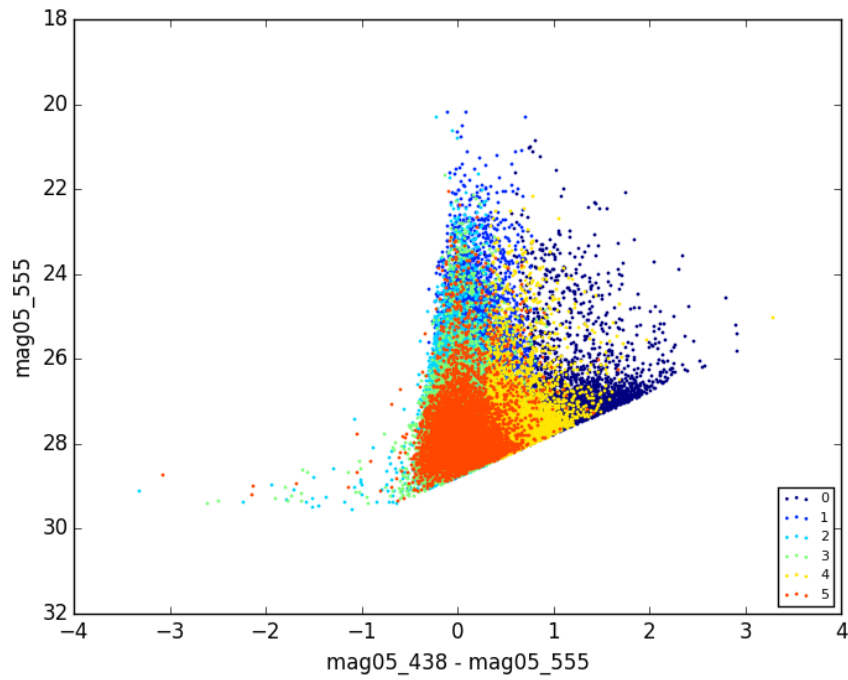


Figure 10: kmeans\_CMD\_6cl\_mag05\_438-mag05\_555vsmag05\_555.png



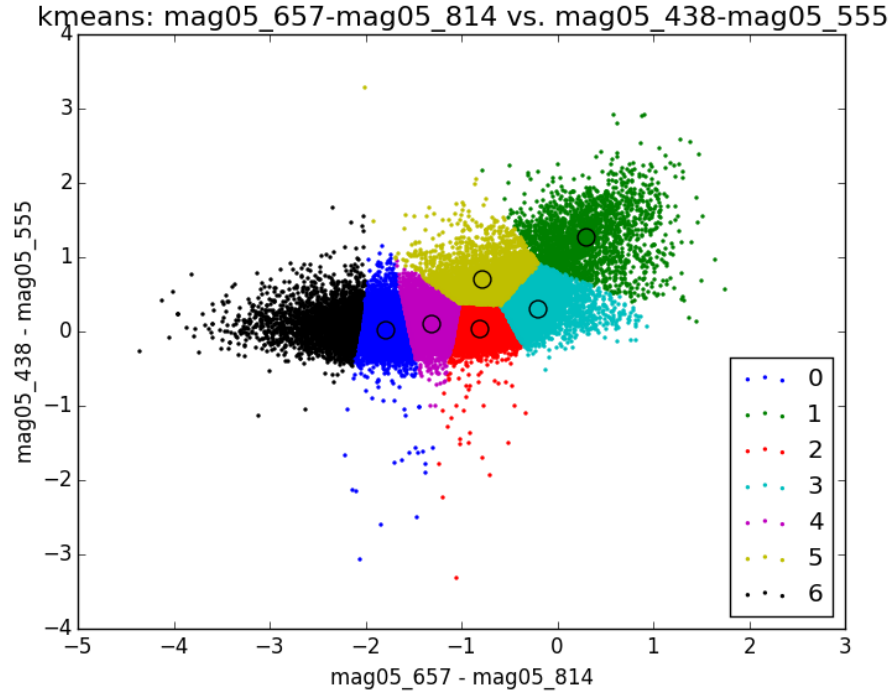


Figure 11: kmeans\_col\_7cl\_mag05\_657-mag05\_814vsmag05\_438-mag05\_555.png

### kmeans results, Ncl=7

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	9524	0.338459070646	0.336527212222	1.2758	0.3219	4.2332	0.0000	0.9211	-1.78409880302	0
2	2057	0.338459070646	0.385188972646	0.9960	0.6586	3.0172	0.0010	0.6125	0.302401069519	0
3	8091	0.338459070646	0.385963410961	0.6001	0.2973	3.6952	0.0000	0.4545	-0.812390804598	0
4	4092	0.338459070646	0.338283796384	0.3458	0.4111	1.5456	0.0000	0.3424	-0.200269061584	0
5	10804	0.338459070646	0.327308766569	0.9480	0.3032	1.9971	0.0000	0.7259	-1.31491993706	0
6	3371	0.338459070646	0.277413656792	0.7827	0.4455	3.2542	0.0000	0.7819	-0.775203500445	0
7	3378	0.338459070646	0.298461199528	1.6956	0.4476	2.9527	0.0000	1.2563	-2.36562995856	0

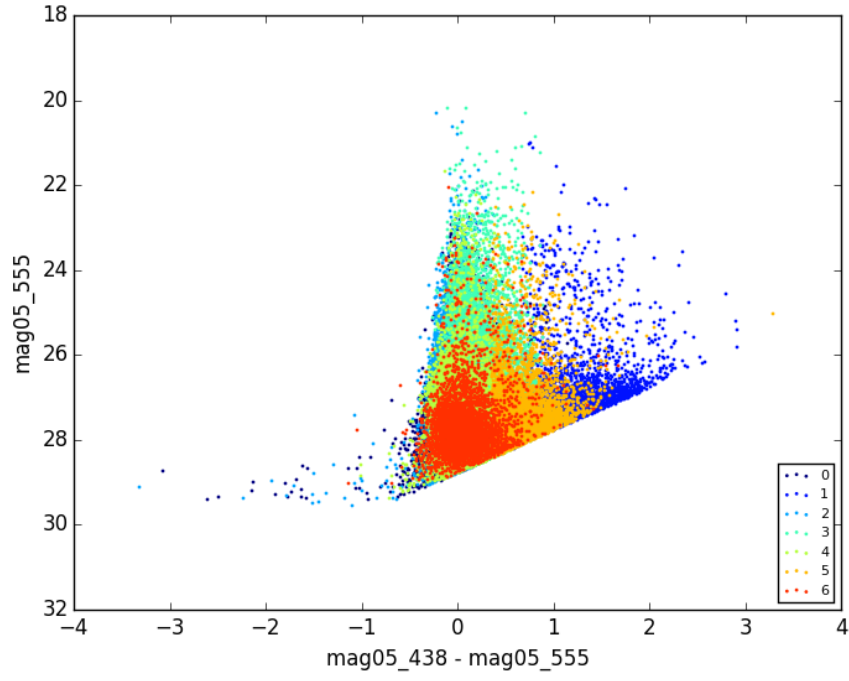


Figure 12: kmeans\_CMD\_7cl\_mag05\_438-mag05\_555vsmag05\_555.png

### kmeans results, Ncl=8

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	4492	0.342771778149	0.251154940135	0.9797	0.3366	1.6684	0.0000	0.8715	-1.2971262244	0
2	8303	0.342771778149	0.374628125532	0.6002	0.2947	2.4116	0.0000	0.4642	-0.813916415753	0
3	1847	0.342771778149	0.371733221191	1.0141	0.6464	2.9030	0.0010	0.5914	0.362002707093	0
4	3784	0.342771778149	0.33700805571	0.3199	0.3923	1.5449	0.0000	0.3188	-0.197647727273	0
5	2782	0.342771778149	0.307760158168	0.7302	0.4327	3.2299	0.0000	0.7213	-0.563547807333	0
6	8762	0.342771778149	0.354464408695	1.3102	0.3022	3.8590	0.0000	0.946	-1.83649897284	0
7	2757	0.342771778149	0.291999854844	1.7374	0.4497	2.9198	0.0000	1.286	-2.42544577439	0
8	8590	0.342771778149	0.371908846243	0.9649	0.2593	3.5616	0.0000	0.6742	-1.34608963912	-0

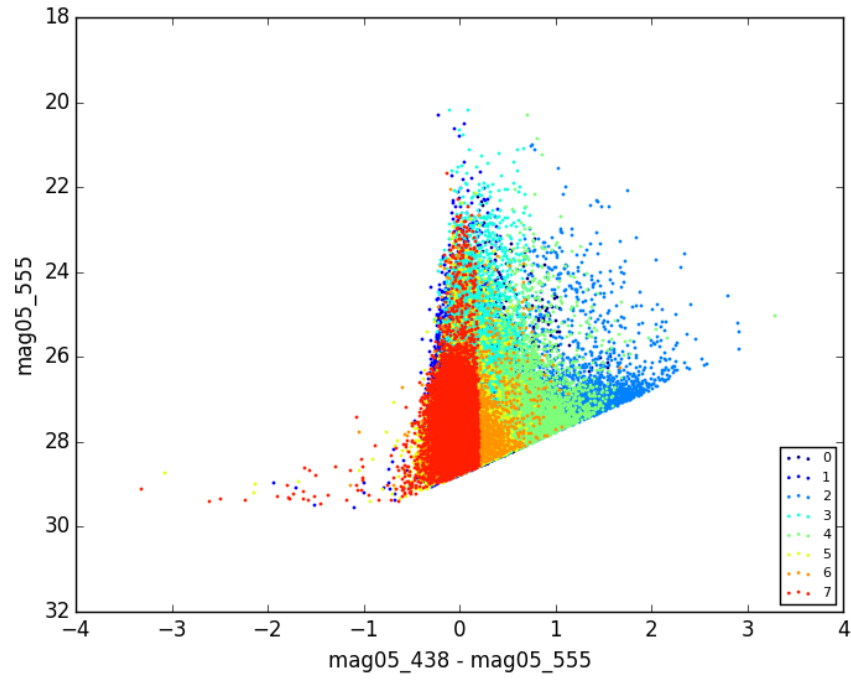


Figure 13: kmeans\_CMD\_8cl\_mag05\_438-mag05\_555vsmag05\_555.png

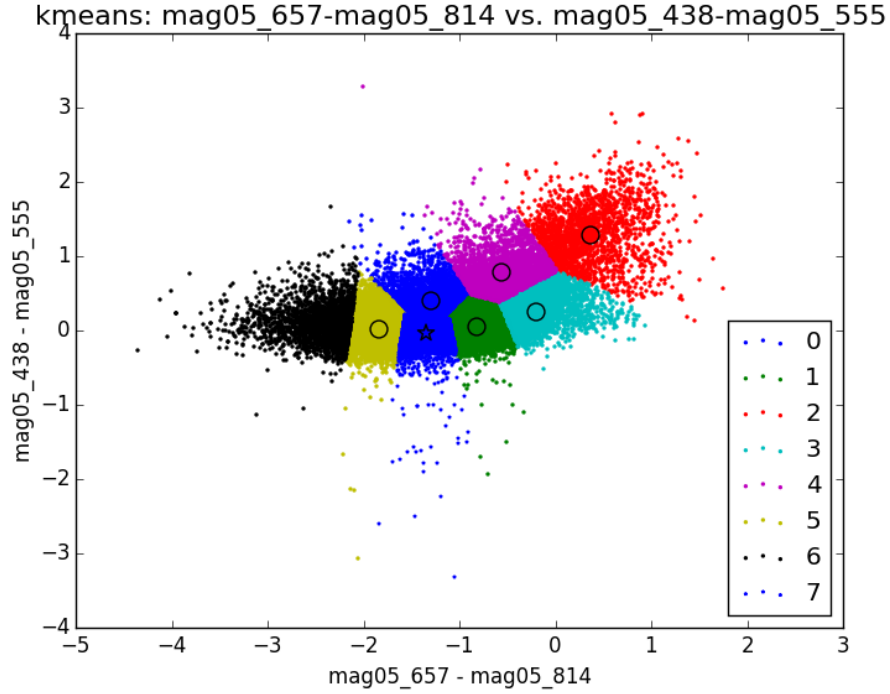


Figure 14: kmeans\_col\_8cl\_mag05\_657-mag05\_814vsmag05\_438-mag05\_555.png

## Meanshift results

Bandw	Nclust	score	TotObj	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10
0.6072	5	0.345781689833	41317	41204	62	42	8	1	0	0	0	0	0
0.4500	10	0.223702041089	41317	40703	494	51	48	12	3	2	2	1	1
0.5000	8	0.26503614446	41317	40496	706	57	48	4	4	1	1	0	0
0.6500	4	0.525616172559	41317	41248	42	26	1	0	0	0	0	0	0
0.5500	6	0.283980403051	41317	40500	711	52	46	7	1	0	0	0	0

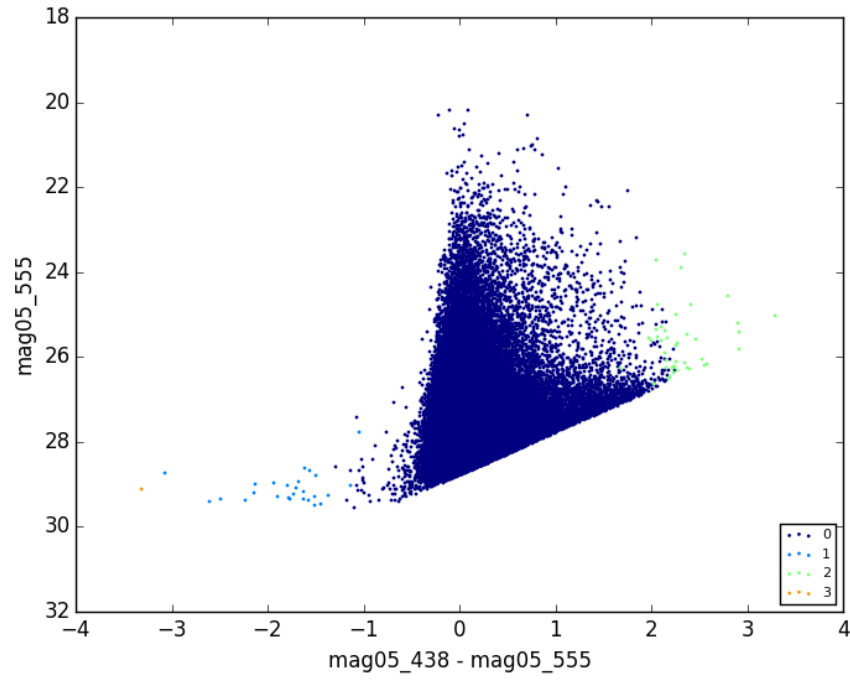


Figure 15: meanshift\_CMD\_4cl\_mag05\_438-mag05\_555vsmag05\_555.png

#### meanshift results, Ncl=4

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	-24288	0.525616172559	0.525594515907	1.0117	0.9277	6.1601	0.0000	0.8835	-1.35243610134	0
2	26	0.525616172559	0.421656959455	1.7315	0.9051	2.6265	0.0342	0.541	-1.918	
3	42	0.525616172559	0.623755442384	1.7594	0.9926	3.8737	0.0264	1.178	-2.005	
4	1	0.525616172559	0.0	N/A	N/A	N/A	N/A	1.13	-1.055	

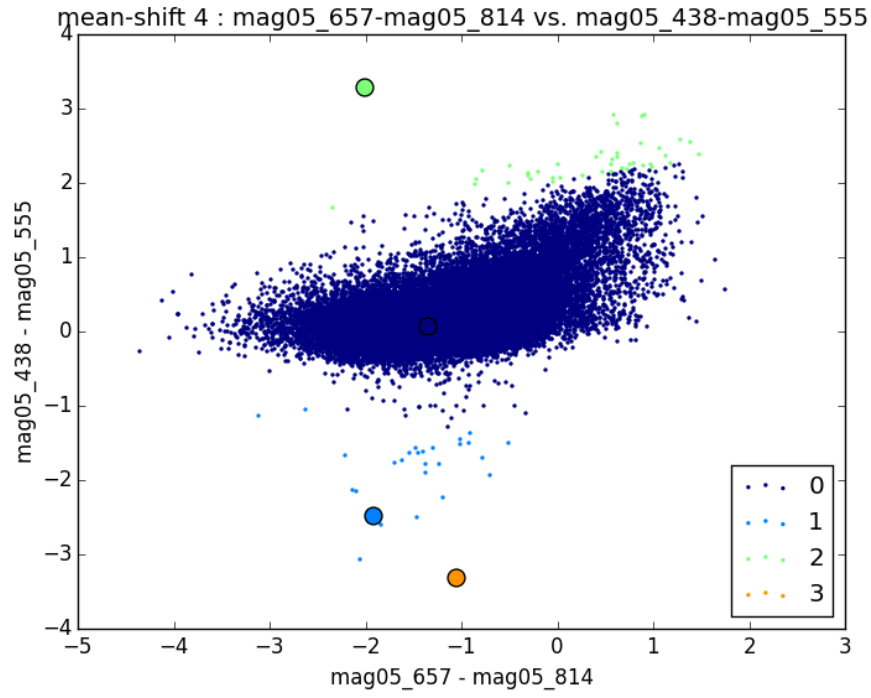


Figure 16: meanshift\_color\_4cl\_mag05\_657-mag05\_814vsmag05\_438-mag05\_555.png

### meanshift results, Ncl=5

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	-24332	0.345781689833	0.345504376233	1.0116	0.9269	6.1601	0.0000	0.8837	-1.35995607993	0
2	62	0.345781689833	0.369081642001	1.2508	0.7828	2.3088	0.0022	0.4471	-1.29428571429	
3	8	0.345781689833	0.178087230476	2.1705	1.0165	2.2132	0.0342	0.5499	-1.918	
4	1	0.345781689833	0.0	N/A	N/A	N/A	N/A	1.13	-1.055	
5	42	0.345781689833	0.62361906806	1.7594	0.9926	3.8737	0.0264	1.178	-2.005	

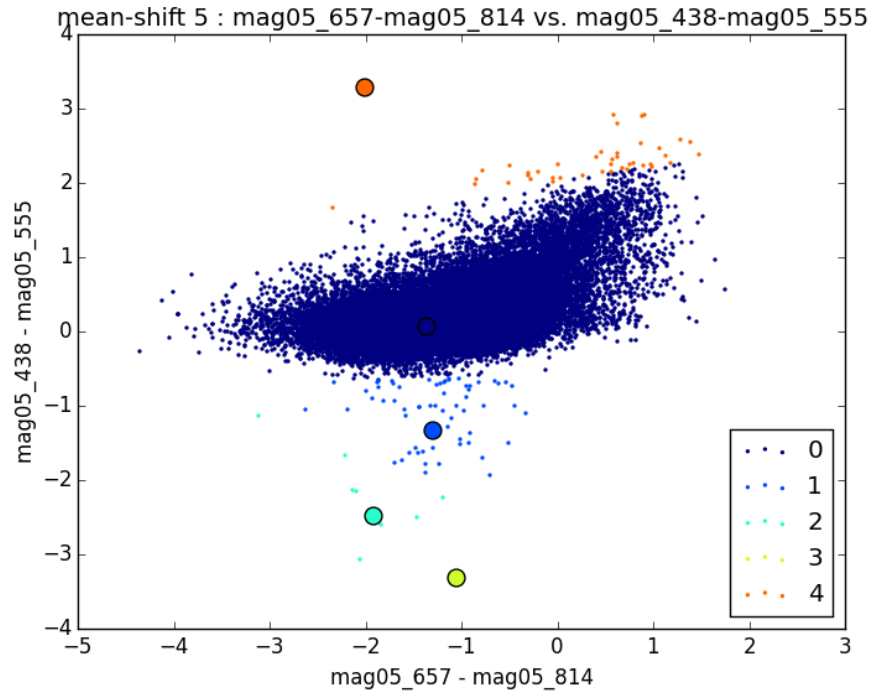


Figure 17: meanshift\_color\_5cl\_mag05\_657-mag05\_814vsmag05\_438-mag05\_555.png

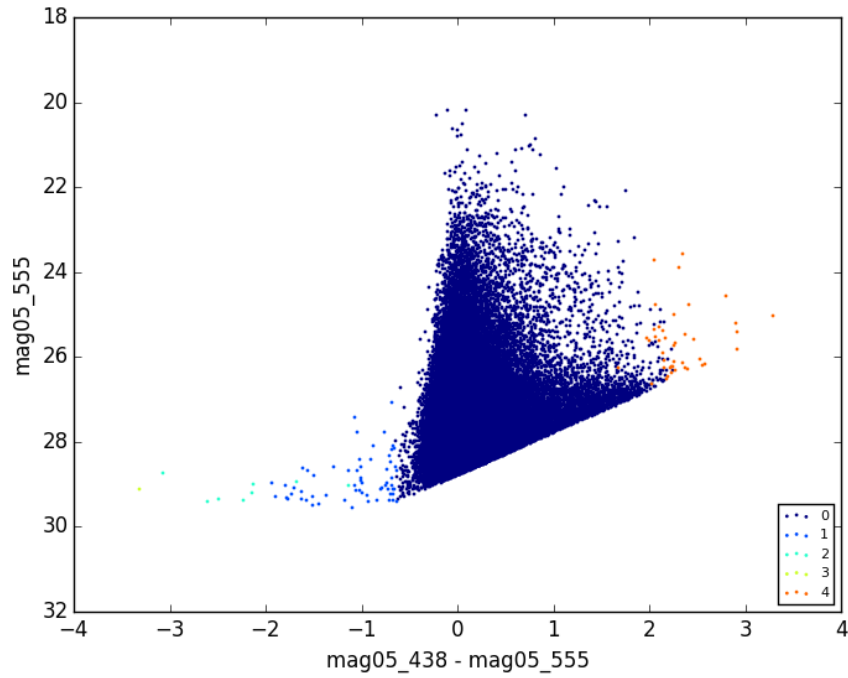


Figure 18: meanshift\_CMD\_5cl\_mag05\_438-mag05\_555vsmag05\_555.png

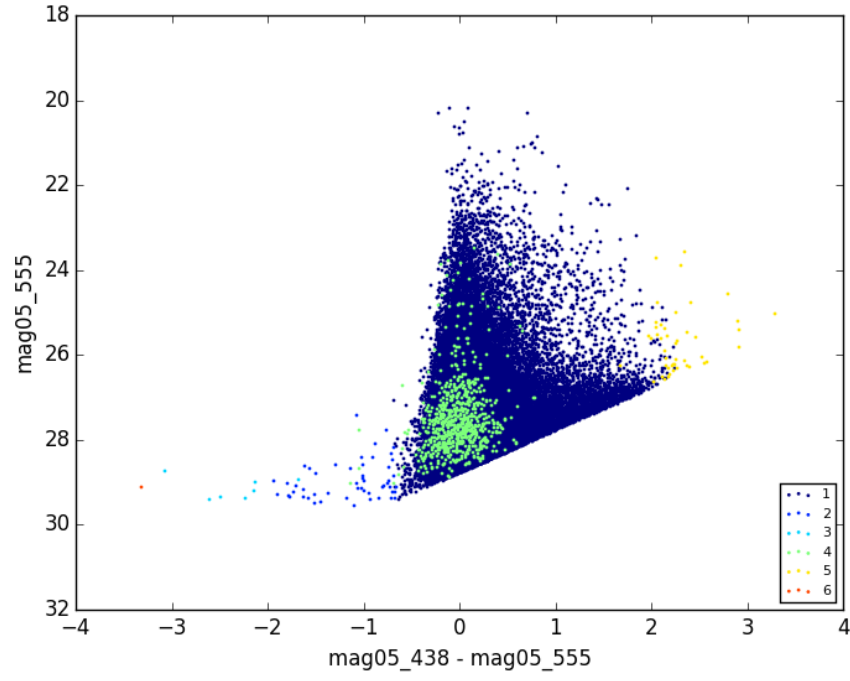


Figure 19: meanshift\_CMD\_6cl\_mag05\_438-mag05\_555vsmag05\_555.png

### meanshift results, Ncl=6

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	-25036	0.283980403051	0.275795733038	0.9856	0.8995	4.7419	0.0000	0.8627	-1.36554732394	0
2	52	0.283980403051	0.378738978208	1.2241	0.7293	1.7145	0.0022	0.4018	-1.297	
3	7	0.283980403051	0.323050989421	2.1443	0.7661	1.4123	0.0342	0.4537	-1.8825	
4	711	0.283980403051	0.720517645936	1.9965	0.4737	2.4302	0.0000	1.4178	-2.874	
5	46	0.283980403051	0.635810755789	1.7429	0.9478	3.8737	0.0264	1.1505	-2.005	
6	1	0.283980403051	0.0	N/A	N/A	N/A	N/A	1.13	-1.055	



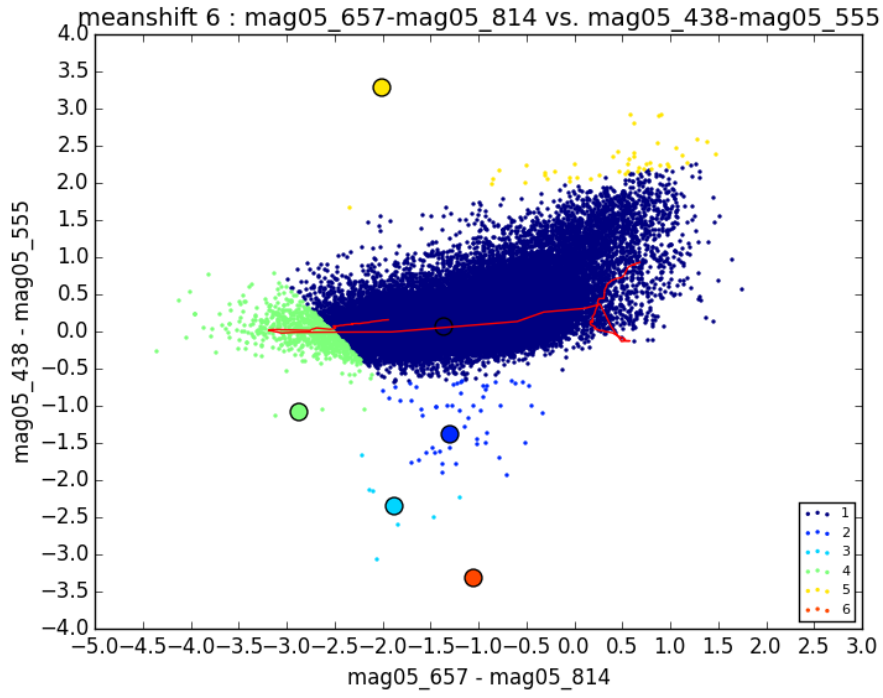


Figure 20: meanshift\_color\_6cl\_mag05\_657-mag05\_814vsmag05\_438-mag05\_555.png

### meanshift results, Ncl=8

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	-25040	0.26503614446	0.256630239294	0.9857	0.8993	4.7419	0.0000	0.8627	-1.37116785214	0.0
2	57	0.26503614446	0.299470805012	1.1948	0.7175	1.7165	0.0022	0.4037	-1.2572173913	-1
3	4	0.26503614446	0.208295801414	1.9479	0.5573	0.8465	0.3783	0.4921	-1.49566666667	-2
4	4	0.26503614446	0.436209951257	1.9925	0.4398	0.5716	0.0342	0.2136	-2.149	
5	706	0.26503614446	0.718795468963	1.9981	0.4739	2.4302	0.0000	1.4191	-2.874	
6	1	0.26503614446	0.0	N/A	N/A	N/A	N/A	0.5075	-2.06	
7	1	0.26503614446	0.0	N/A	N/A	N/A	N/A	1.13	-1.055	
8	48	0.26503614446	0.643390629238	1.7355	0.9276	3.8737	0.0264	1.138	-2.005	

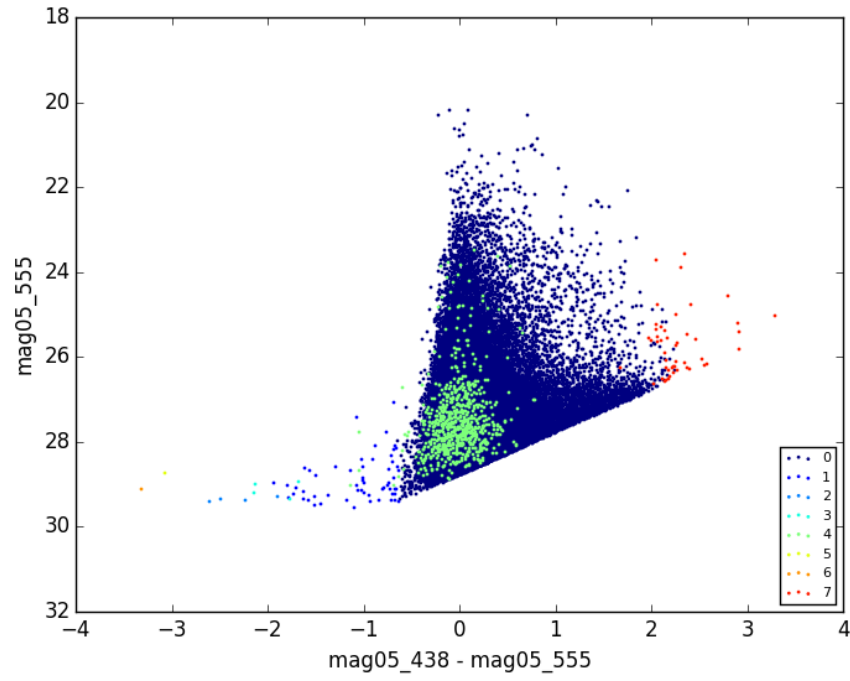


Figure 21: meanshift\_CMD\_8cl\_mag05\_438-mag05\_555vsmag05\_555.png

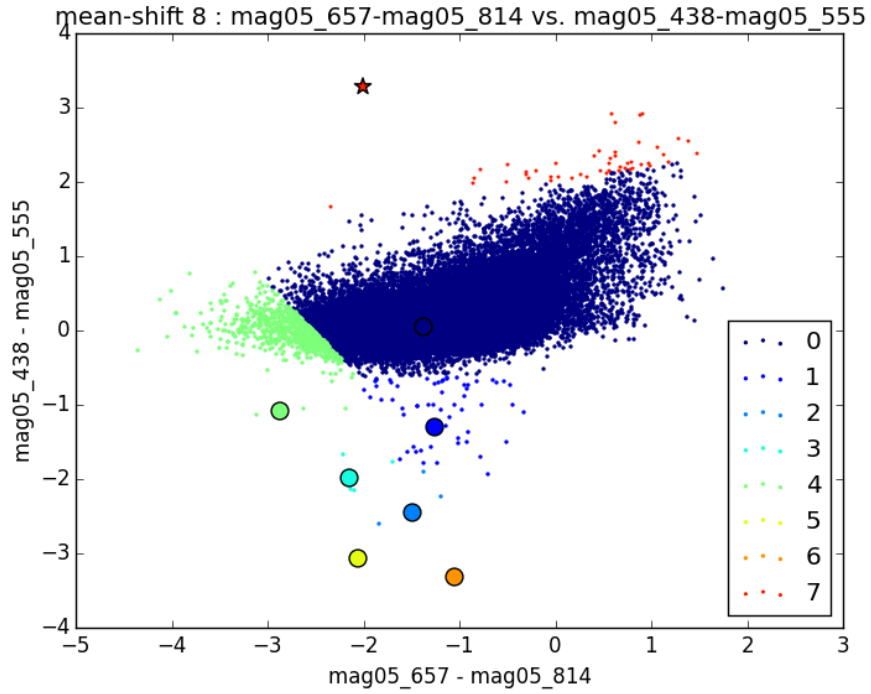


Figure 22: meanshift\_color\_8cl\_mag05\_657-mag05\_814vsmag05\_438-mag05\_555.png

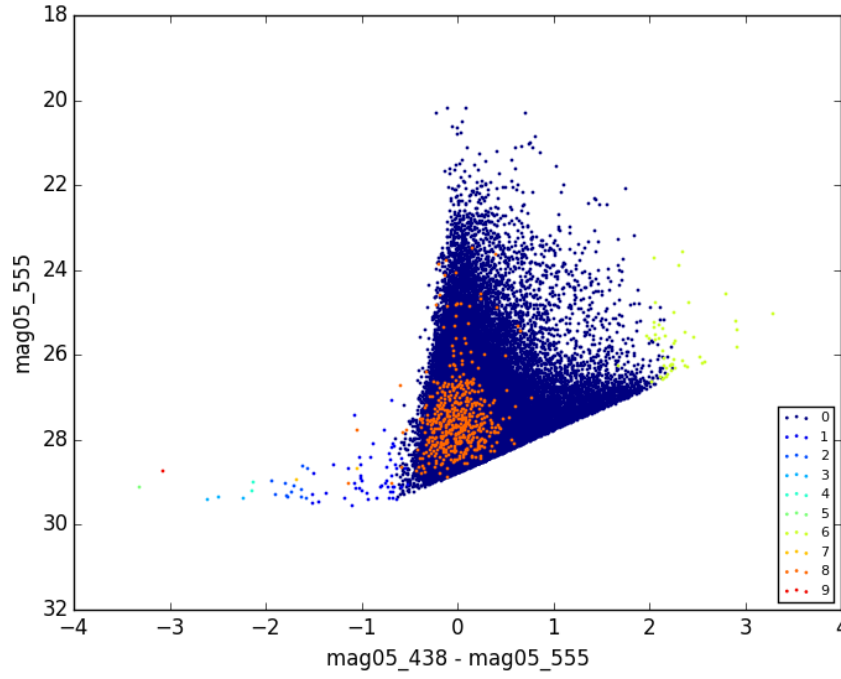


Figure 23: meanshift\_CMD\_10cl\_mag05\_438-mag05\_555vsmag05\_555.png

### meanshift results, Ncl=10

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	-24833	0.223702041089	0.217373229431	0.9916	0.9050	4.8836	0.0000	0.8672	-1.37005491751
2	51	0.223702041089	0.233269032863	1.0841	0.6502	1.8870	0.0022	0.3877	-1.23845
3	12	0.223702041089	0.500013273471	1.5509	0.3858	1.0007	0.0554	0.2945	-1.40627272727
4	3	0.223702041089	0.164307988904	2.0369	0.5032	0.7427	0.3783	0.5208	-1.49566666667
5	2	0.223702041089	0.953859966442	2.1266	0.0342	0.0342	0.0342	0.0154	-2.117
6	1	0.223702041089	0.0	N/A	N/A	N/A	N/A	1.13	-1.055
7	48	0.223702041089	0.644150999853	1.7355	0.9276	3.8737	0.0264	1.138	-2.005
8	2	0.223702041089	0.0912543801464	1.8427	0.6284	0.6284	0.6284	0.4776	-2.213
9	494	0.223702041089	0.695456262278	2.0794	0.4587	2.1638	0.0000	1.483	-3.116
10	1	0.223702041089	0.0	N/A	N/A	N/A	N/A	0.5075	-2.06

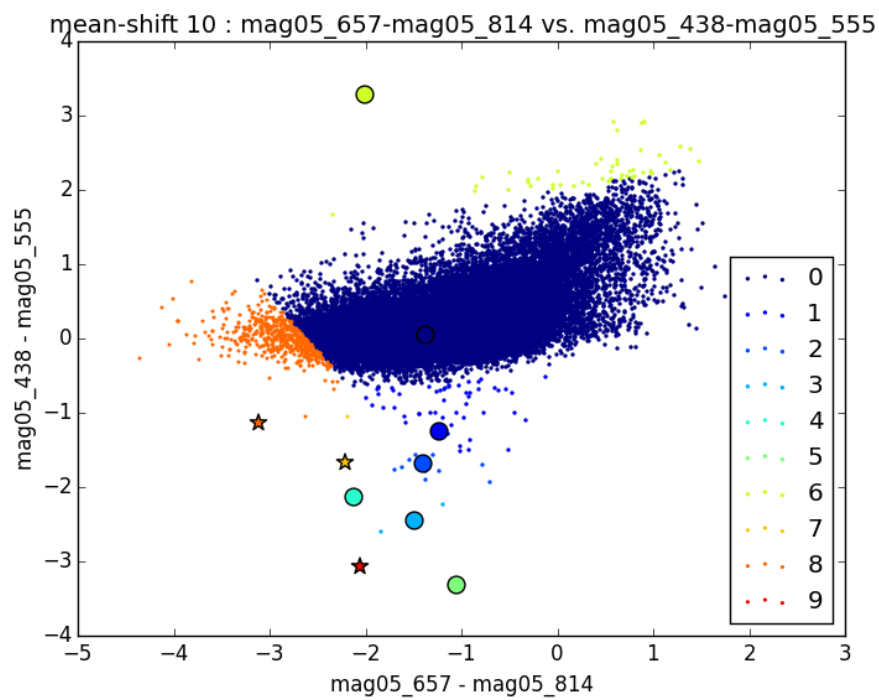


Figure 24: meanshift\_color\_10cl\_mag05\_657-mag05\_814vsmag05\_438-mag05\_555.png