

## K-means results

Nclust	inertia	score	TotObj	N1	N2	N3	N4	N5	N6	N7	N8
3	2606.06668137	0.392705861518	18882	9542	6696	2644	0	0	0	0	0
4	2087.252002	0.343933294632	18882	8079	4681	4211	1911	0	0	0	0
5	1756.16859497	0.352883535541	18882	7847	4998	3414	1394	1229	0	0	0
6	1480.87862354	0.34489310079	18882	6906	5086	2460	2146	1163	1121	0	0
7	1290.20228993	0.358768459005	18882	6896	3090	2743	2185	2149	999	820	0
8	1140.35592961	0.334109295048	18882	5130	4374	2858	1875	1728	1308	858	751

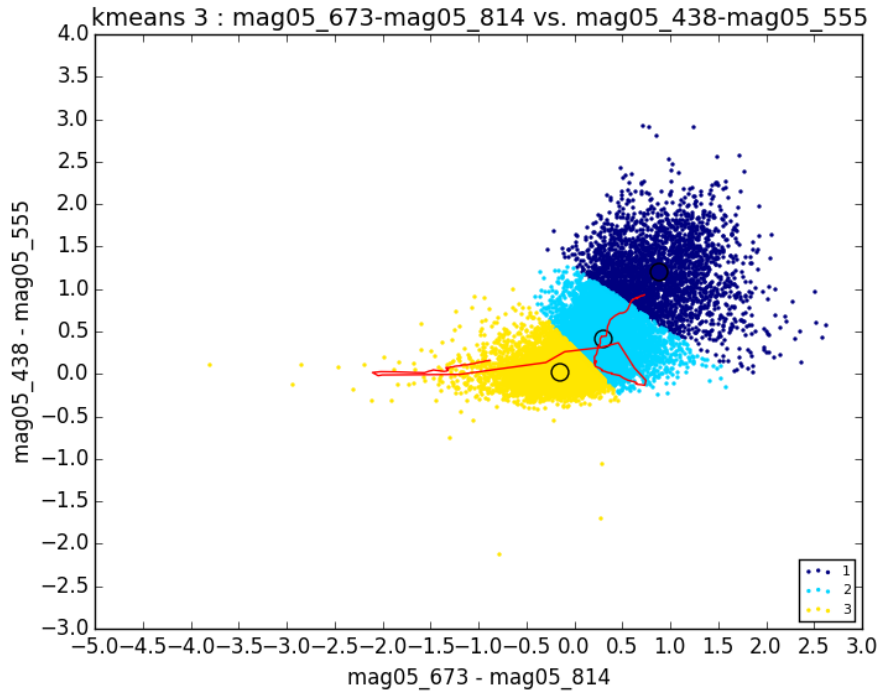


Figure 1: kmeans\_color\_3cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

### kmeans results, Ncl=3

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	2644	0.392705861518	0.32258556148	1.1285	0.7059	3.2341	0.0000	0.432	0.887482980333	1
2	6696	0.392705861518	0.308687330744	0.4405	0.4345	2.3612	0.0000	0.2544	0.3025630227	0
3	9542	0.392705861518	0.471094685177	0.2460	0.3563	4.4539	0.0000	0.2373	-0.154207608468	0.

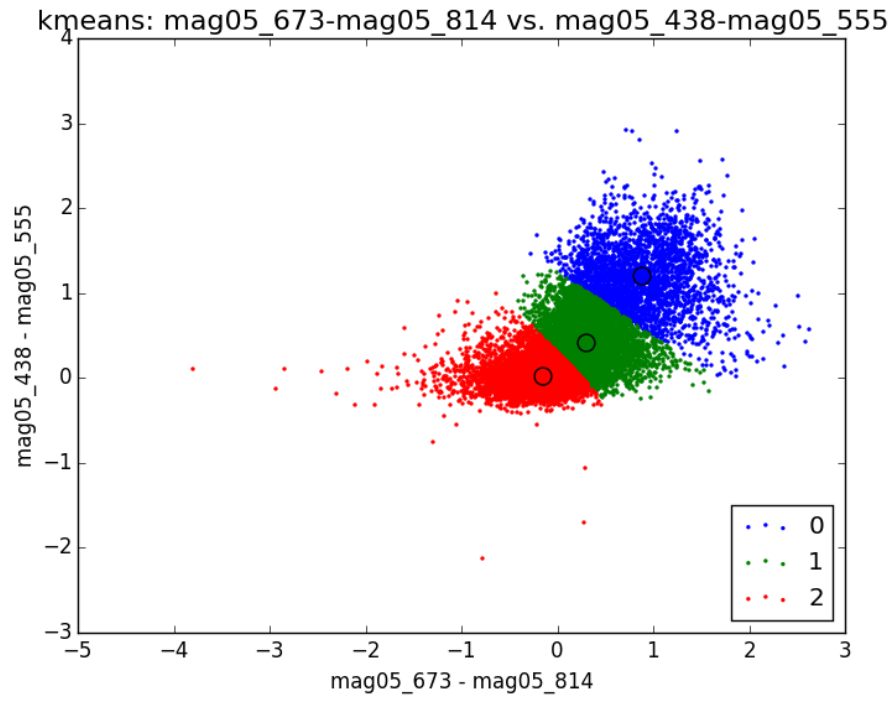


Figure 2: kmeans\_col\_3cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

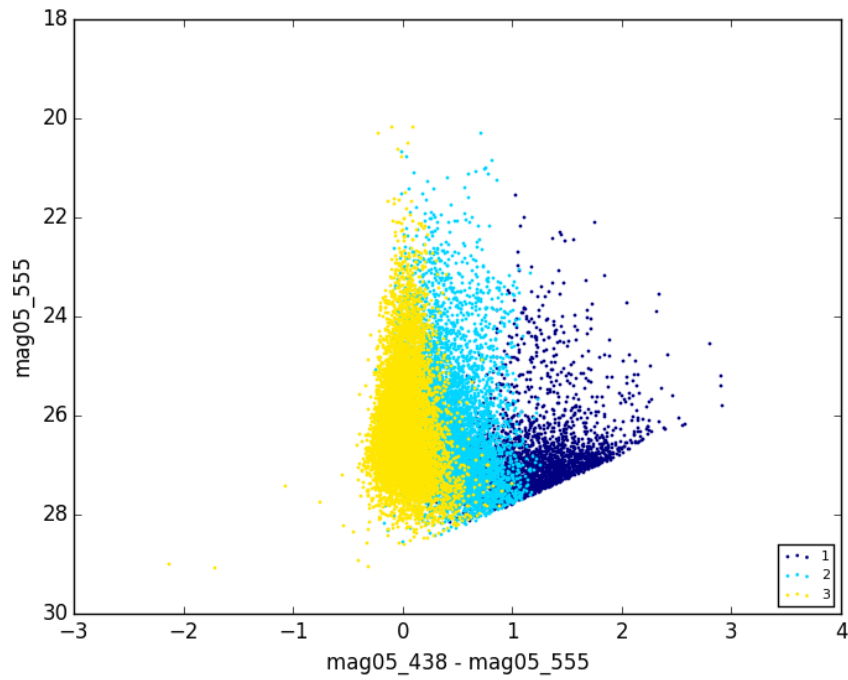


Figure 3: kmeans\_CMD\_3cl\_mag05\_438-mag05\_555vsmag05\_555.png

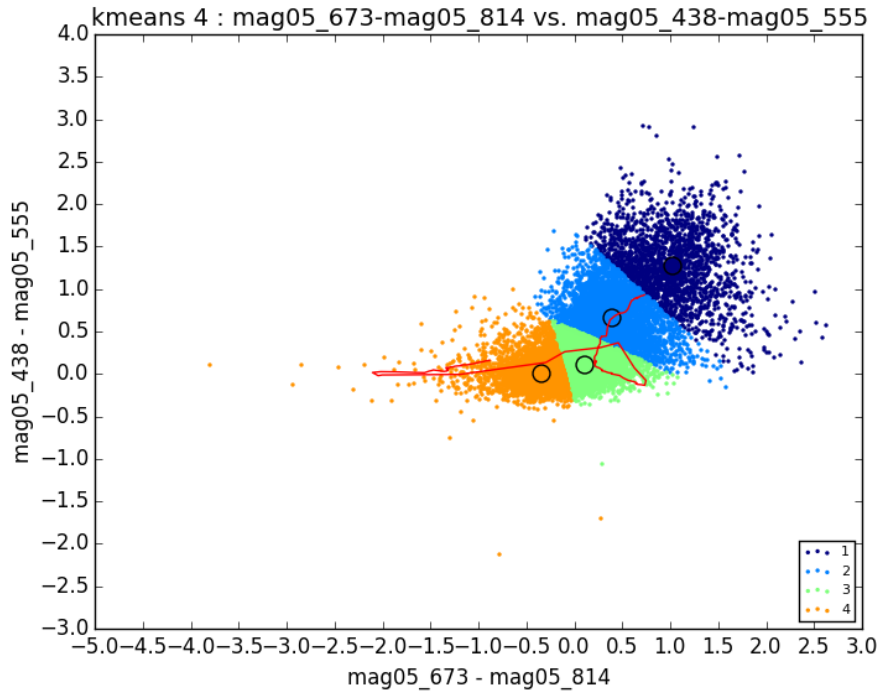


Figure 4: kmeans\_color\_4cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

### kmeans results, Ncl=4

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	1911	0.343933294632	0.3054068897	1.2243	0.6892	3.2341	0.0000	0.416	1.02329304029
2	4211	0.343933294632	0.282209238399	0.6060	0.4617	2.5662	0.0000	0.2991	0.388137971978
3	8079	0.343933294632	0.393653188696	0.2016	0.2914	1.7641	0.0000	0.1663	0.114824978339
4	4681	0.343933294632	0.329375921522	0.3283	0.3456	4.4539	0.0000	0.281	-0.345356761376

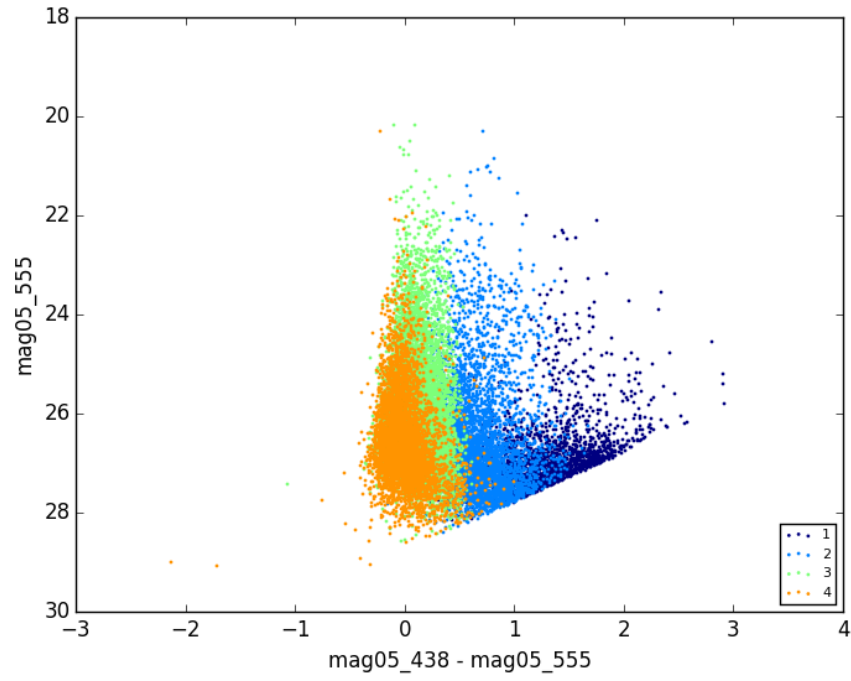


Figure 5: kmeans\_CMD\_4cl\_mag05\_438-mag05\_555vsmag05\_555.png

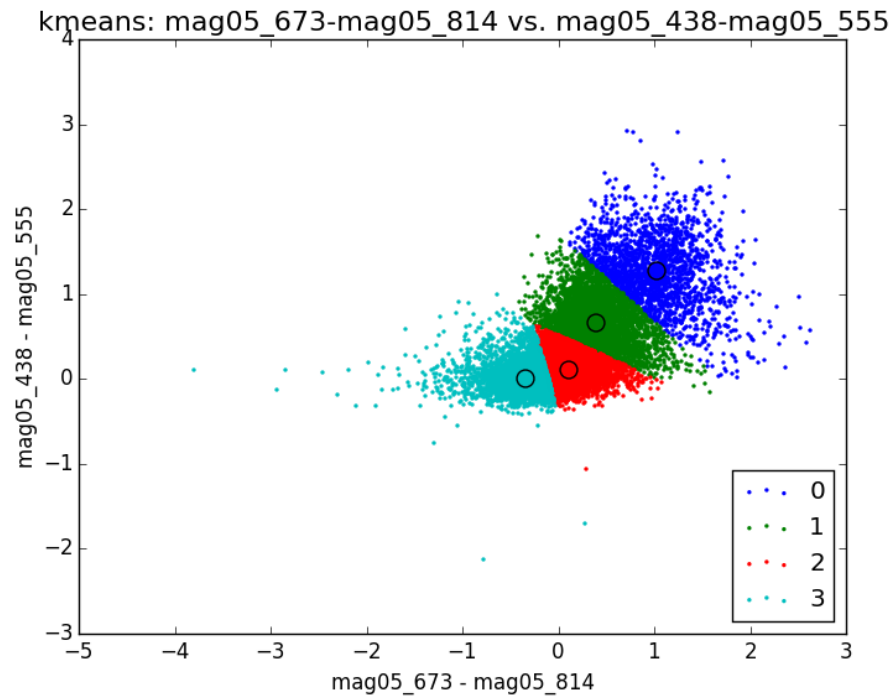


Figure 6: kmeans\_col\_4cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

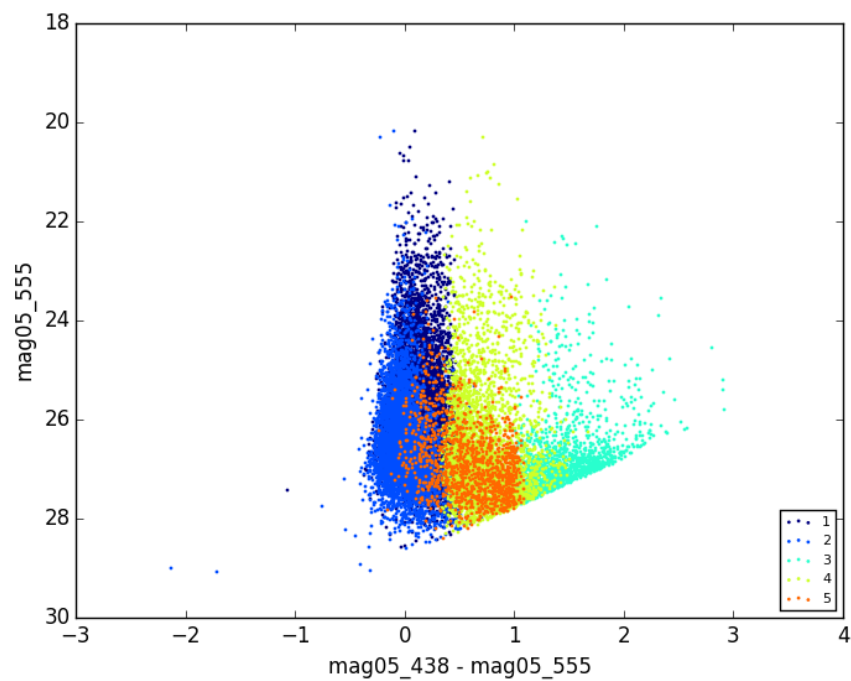


Figure 7: kmeans\_CMD\_5cl\_mag05\_438-mag05\_555vsmag05\_555.png

### kmeans results, Ncl=5

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	7847	0.352883535541	0.386114393282	0.2054	0.2879	1.6579	0.0000	0.1631	0.129306486555	0
2	4998	0.352883535541	0.331156352237	0.3184	0.3427	4.4539	0.0000	0.2739	-0.328784113645	0.
3	1394	0.352883535541	0.347543112039	1.2668	0.5773	2.0738	0.0010	0.4236	0.926144189383	
4	3414	0.352883535541	0.348227988546	0.5914	0.3827	1.5641	0.0000	0.3069	0.287740773286	0
5	1229	0.352883535541	0.248057261548	0.8909	0.5471	2.0426	0.0000	0.3847	1.02214890155	0

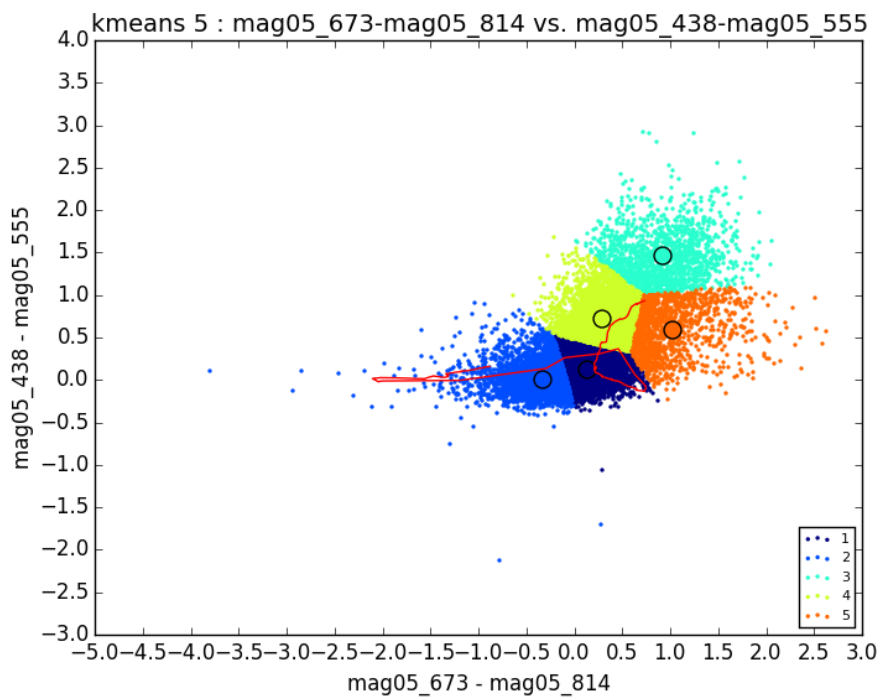


Figure 8: kmeans\_color\_5cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

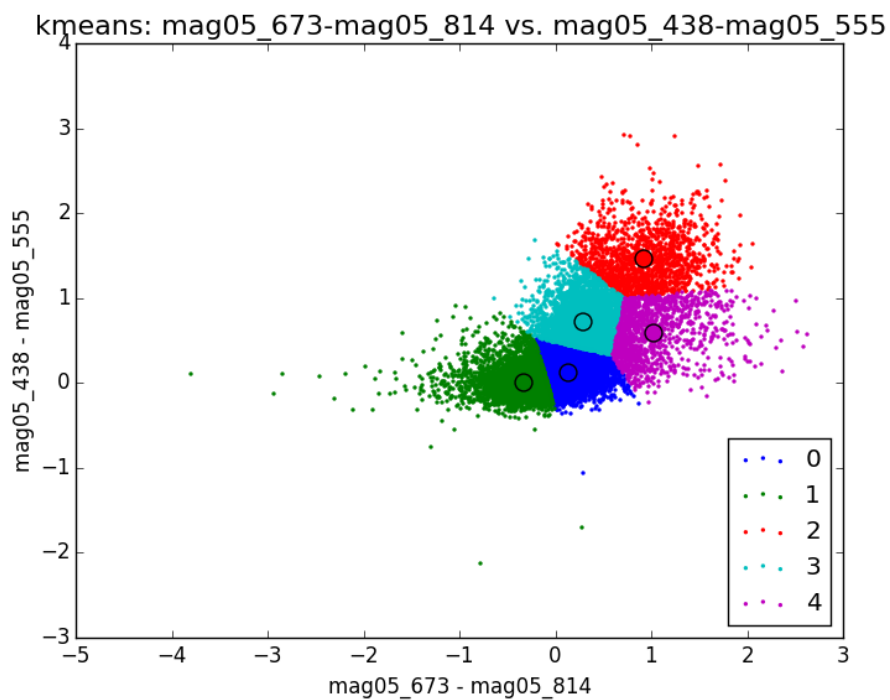


Figure 9: kmeans\_col\_5cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

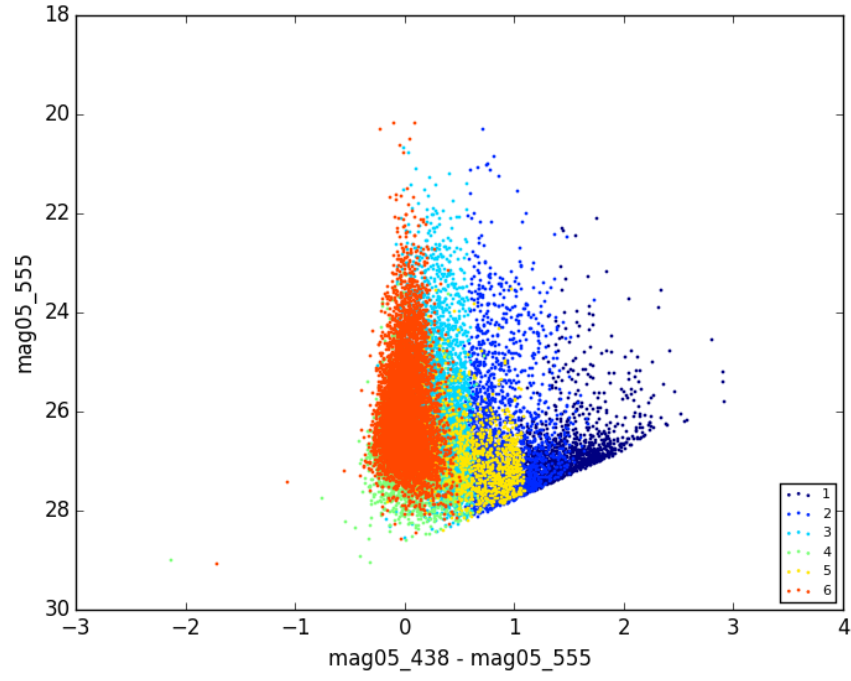


Figure 10: kmeans\_CMD\_6cl\_mag05\_438-mag05\_555vsmag05\_555.png

### kmeans results, Ncl=6

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	1163	0.34489310079	0.35425793949	1.3145	0.5529	2.0738	0.0010	0.4063	0.993455717971	1
2	2460	0.34489310079	0.345744147131	0.6973	0.3847	1.3999	0.0000	0.3507	0.327697154472	0
3	5086	0.34489310079	0.271584789998	0.3182	0.3106	1.4363	0.0000	0.1768	0.247663586315	0
4	2146	0.34489310079	0.268477008263	0.4478	0.3769	3.7547	0.0000	0.3715	-0.534239981361	0.
5	1121	0.34489310079	0.244915114765	0.9274	0.5408	2.0073	0.0000	0.382	1.06507136485	0
6	6906	0.34489310079	0.436976136437	0.1368	0.2310	2.2963	0.0000	0.1351	-0.0532274833478	0.



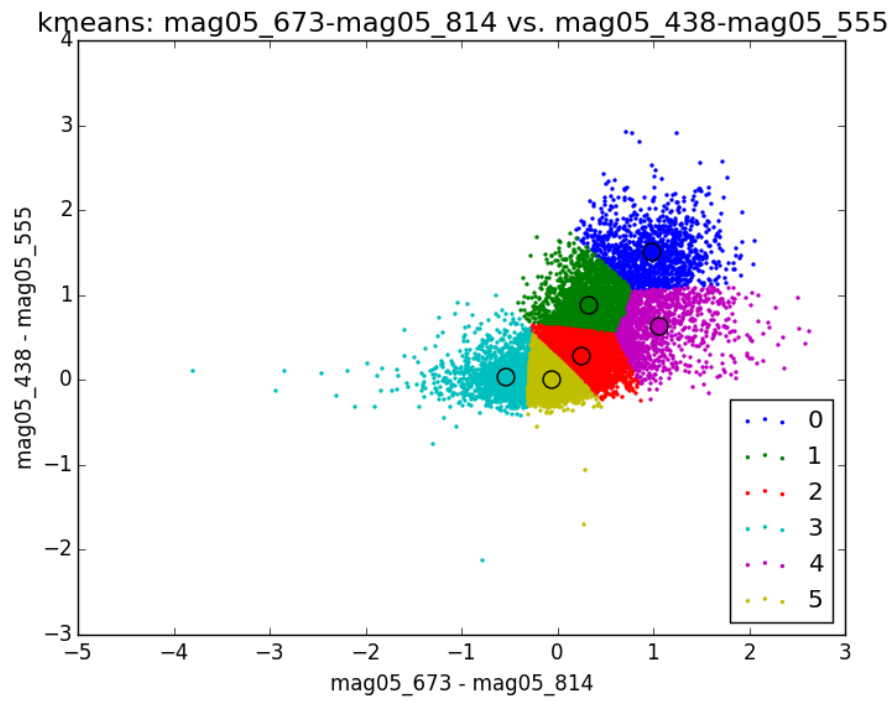


Figure 11: kmeans\_col\_6cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

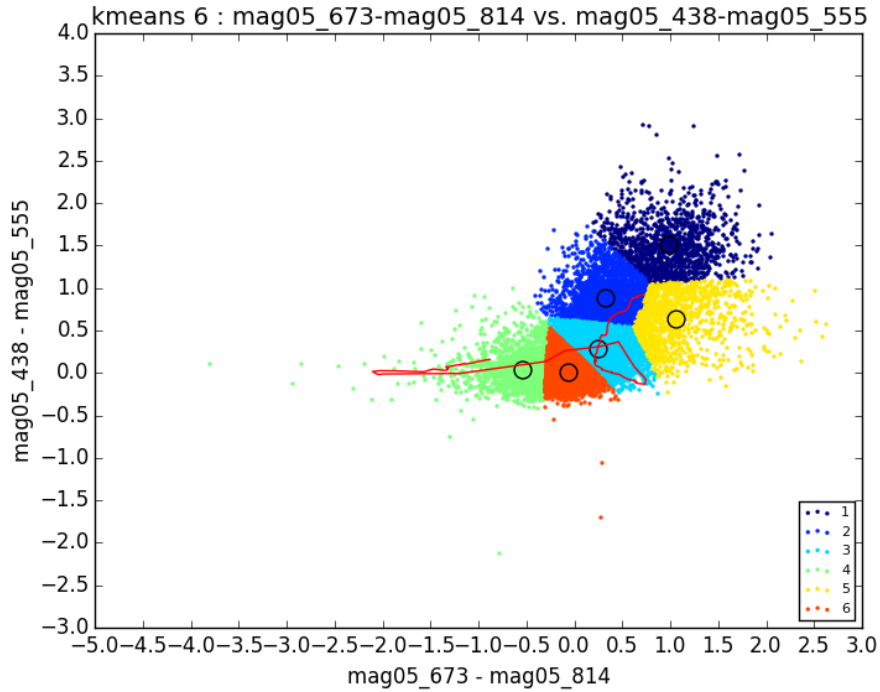


Figure 12: kmeans\_color\_6cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

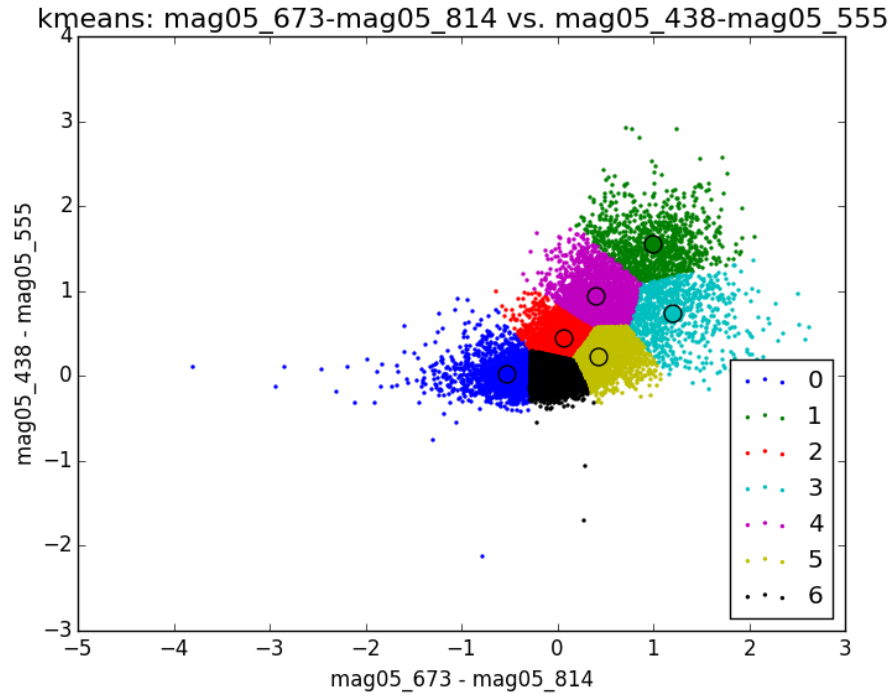


Figure 13: kmeans\_col\_7cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

### kmeans results, Ncl=7

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	2185	0.358768459005	0.295131728432	0.4389	0.3597	3.7547	0.0000	0.3556	-0.527831578947
2	999	0.358768459005	0.336893206036	1.3439	0.5322	1.9166	0.0010	0.4095	1.00545845846
3	3090	0.358768459005	0.323432303052	0.3490	0.2673	1.1370	0.0000	0.2364	0.0760174757282
4	820	0.358768459005	0.284796889623	1.0478	0.5272	1.8678	0.0000	0.3861	1.21242560976
5	2149	0.358768459005	0.33087067436	0.7562	0.3792	1.4247	0.0000	0.3401	0.411056305258
6	2743	0.358768459005	0.274611853097	0.3828	0.3063	0.9814	0.0000	0.205	0.430955158585
7	6896	0.358768459005	0.448898817475	0.1272	0.2211	2.0755	0.0000	0.1263	-0.0354808584687

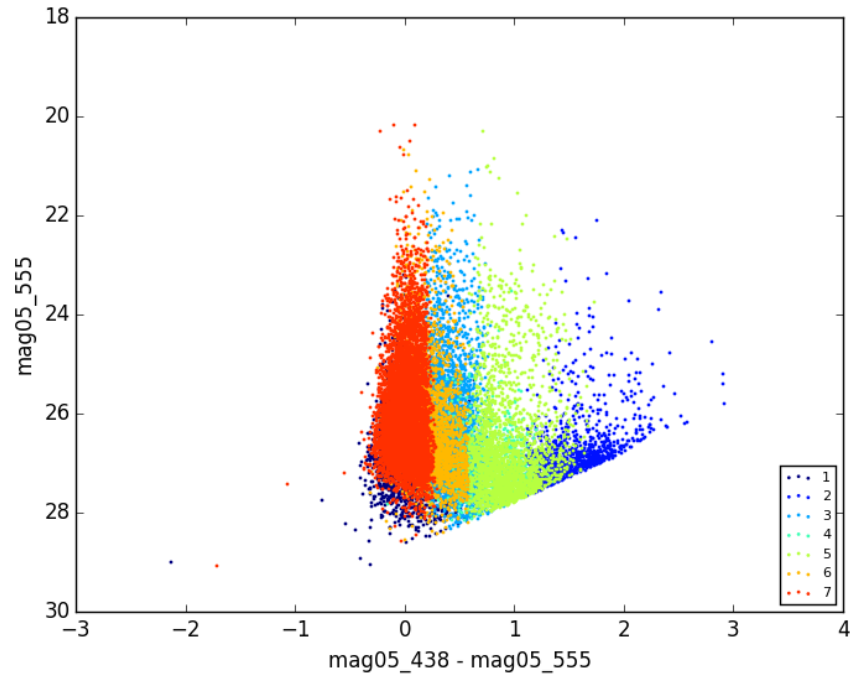


Figure 14: kmeans\_CMD\_7cl\_mag05\_438-mag05\_555vsmag05\_555.png

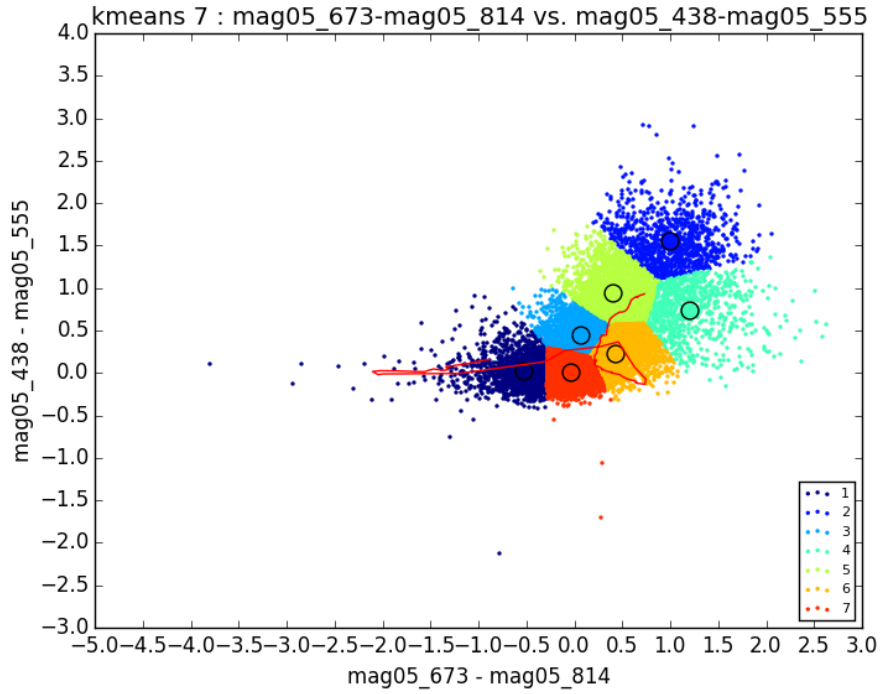


Figure 15: kmeans\_color\_7cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

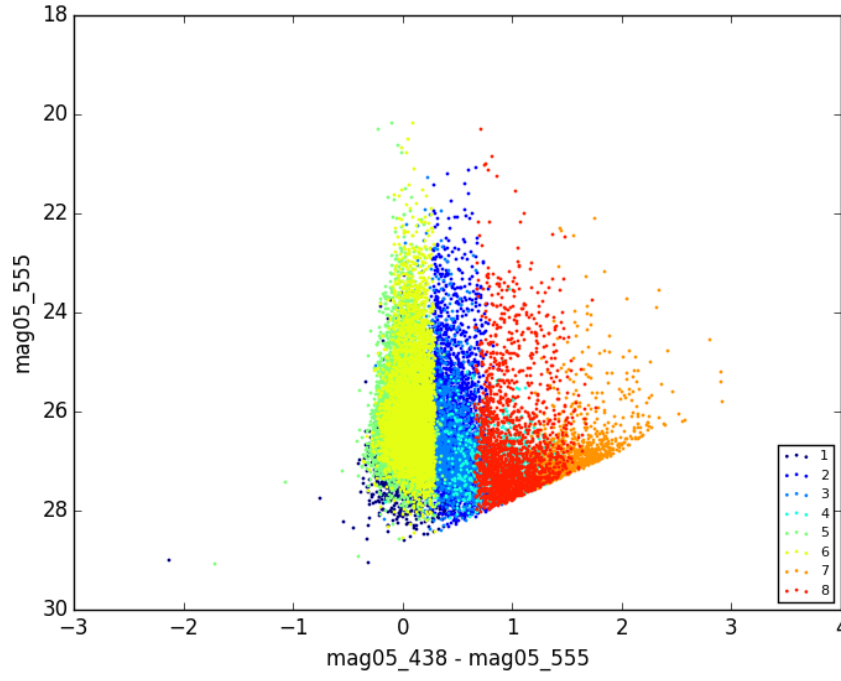


Figure 16: kmeans\_CMD\_8cl\_mag05\_438-mag05\_555vsmag05\_555.png

### kmeans results, Ncl=8

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	1308	0.334109295048	0.265001947228	0.5254	0.3847	3.7547	0.0000	0.4239	-0.654497706422	0
2	2858	0.334109295048	0.306329217782	0.3774	0.2726	1.1637	0.0000	0.2496	0.0874503149055	0
3	1728	0.334109295048	0.283400293436	0.5242	0.3293	1.2488	0.0000	0.2179	0.589430555556	0
4	751	0.334109295048	0.284837917203	1.1254	0.5190	1.8438	0.0000	0.3702	1.27848868176	
5	5130	0.334109295048	0.379742014715	0.1639	0.2104	2.1916	0.0000	0.1402	-0.158103118908	-0
6	4374	0.334109295048	0.352590139878	0.1725	0.2110	0.7963	0.0000	0.126	0.159935528121	0
7	858	0.334109295048	0.332732578087	1.3674	0.5147	1.8484	0.0010	0.422	0.998649184149	
8	1875	0.334109295048	0.3237978216	0.7925	0.3748	1.3538	0.0000	0.3582	0.417683733333	0

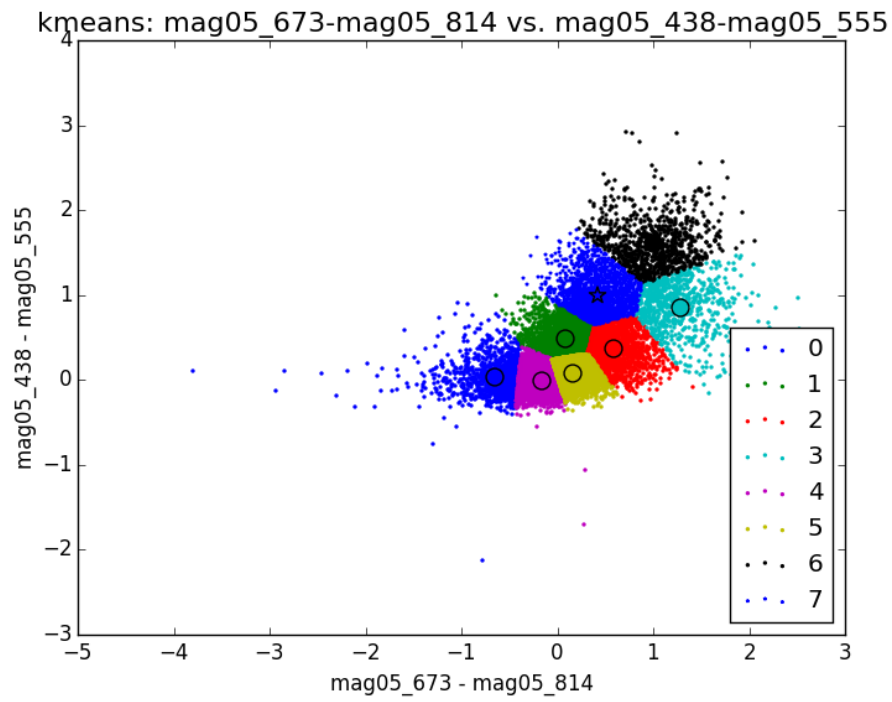


Figure 17: kmeans\_col\_8cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

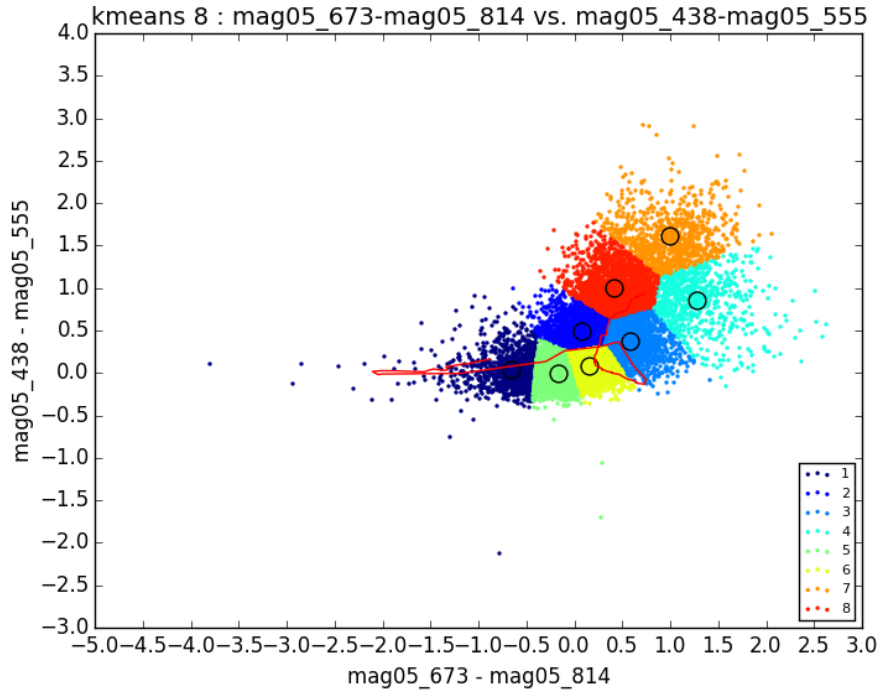


Figure 18: kmeans\_color\_8cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

## Meanshift results

Bandw	Nclust	score	TotObj	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10
0.4957	6	0.491271528606	18882	18837	40	2	1	1	1	0	0	0	0
0.4957	6	0.491271528606	18882	18837	40	2	1	1	1	0	0	0	0
0.3000	14	0.330407450607	18882	17226	610	428	198	163	121	117	8	5	2
0.3500	9	0.422032543494	18882	17830	808	162	75	2	2	1	1	1	0
0.4000	8	0.441123288733	18882	17974	444	428	30	2	2	1	1	0	0
0.4500	6	0.482168088907	18882	18823	54	2	1	1	1	0	0	0	0
0.5500	6	0.483203764549	18882	18825	52	2	1	1	1	0	0	0	0
0.6000	5	0.513549192802	18882	18868	9	2	2	1	0	0	0	0	0
0.6500	4	0.578194246969	18882	18869	9	2	2	0	0	0	0	0	0

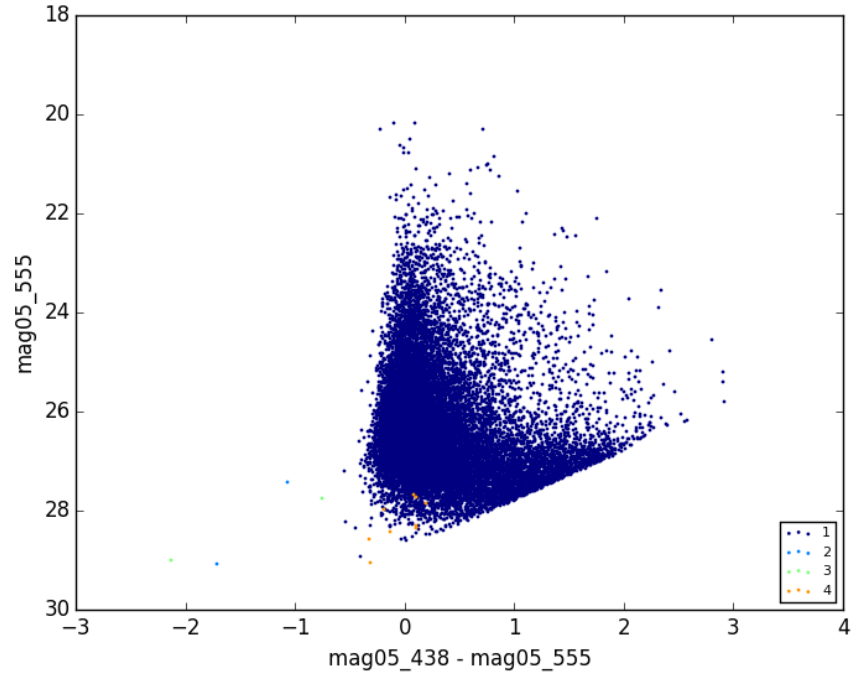


Figure 19: meanshift\_CMD\_4cl\_mag05\_438-mag05\_555vsmag05\_555.png

### meanshift results, Ncl=4

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	18869	0.578194246969	0.578239049282	0.5254	0.7466	4.5387	0.0000	0.4665	0.0192414730068
2	2	0.578194246969	0.56501978115	1.0263	0.6424	0.6424	0.6424	0.8649	0.282
3	2	0.578194246969	-0.0620154588978	1.3583	1.4672	1.4672	1.4672	0.5573	-0.779
4	9	0.578194246969	0.62946019282	1.8195	0.7652	1.9446	0.2142	1.3022	-3.799

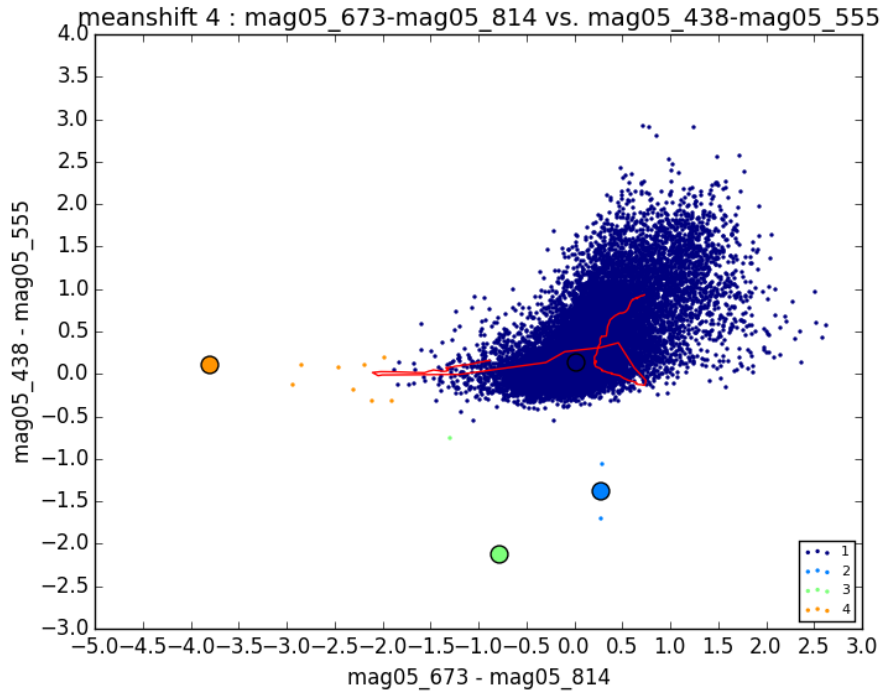


Figure 20: meanshift\_color\_4cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

### meanshift results, Ncl=5

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	18868	0.513549192802	0.513673969911	0.5253	0.7465	4.5387	0.0000	0.4665	0.0145127613662
2	2	0.513549192802	-0.288321505875	0.9701	1.5837	1.5837	1.5837	0.9559	0.293
3	9	0.513549192802	0.62946019282	1.8195	0.7652	1.9446	0.2142	1.3022	-3.799
4	2	0.513549192802	-0.126552258251	1.3583	1.4672	1.4672	1.4672	0.5573	-0.779
5	1	0.513549192802	0.0	N/A	N/A	N/A	N/A	0.9895	0.271



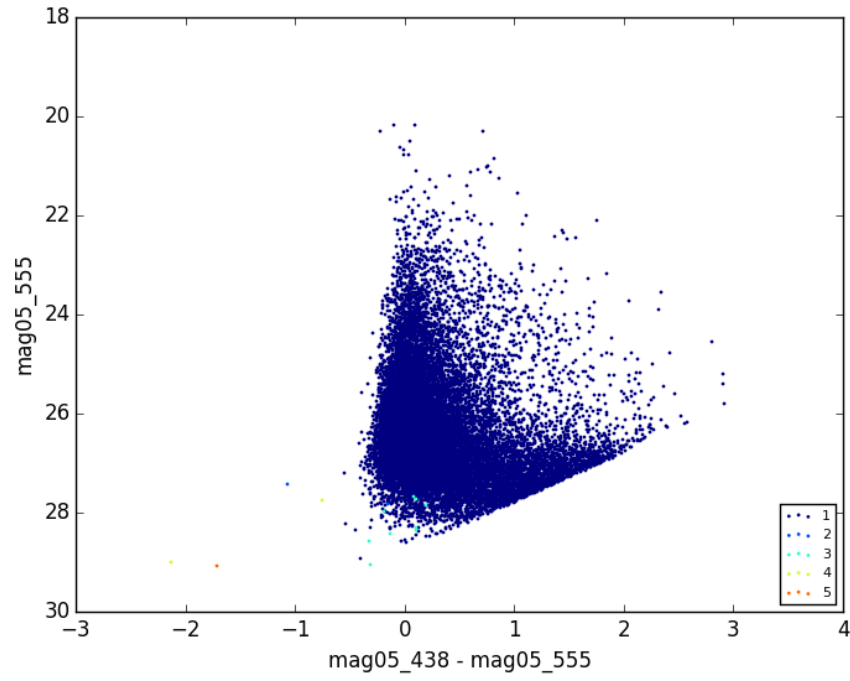


Figure 21: meanshift\_CMD\_5cl\_mag05\_438-mag05\_555vsmag05\_555.png

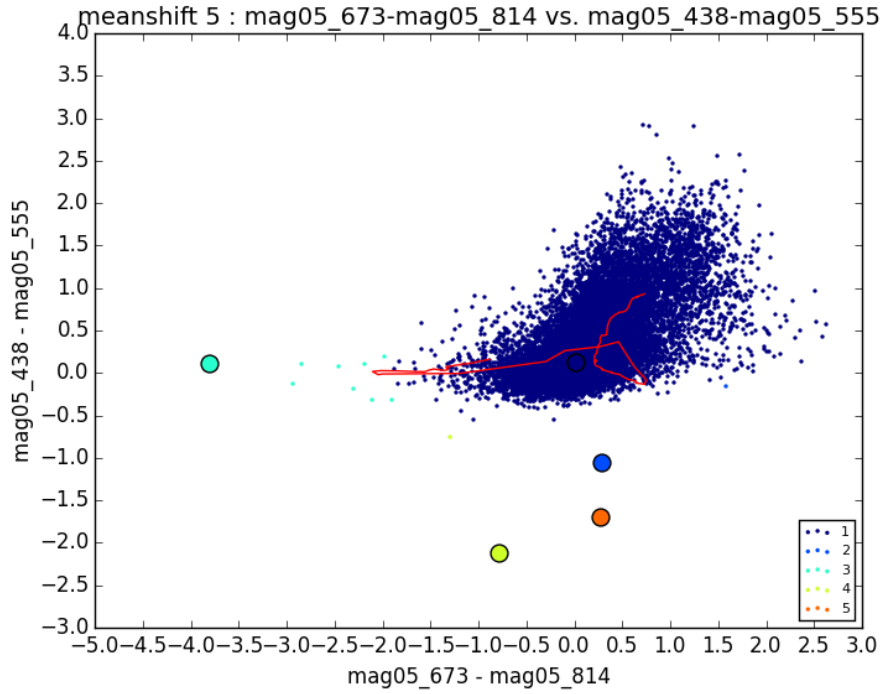


Figure 22: meanshift\_color\_5cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

# meanshift results, Ncl=6

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	18837	0.491271528606	0.491099718165	0.5240	0.7433	4.1933	0.0000	0.4641	0.00319025773626
2	40	0.491271528606	0.648043248729	1.2124	0.5441	1.7727	0.0197	0.8827	-2.5458
3	1	0.491271528606	0.0	N/A	N/A	N/A	N/A	1.95	-3.799
4	1	0.491271528606	0.0	N/A	N/A	N/A	N/A	0.9895	0.271
5	1	0.491271528606	0.0	N/A	N/A	N/A	N/A	0.6755	-0.779
6	2	0.491271528606	-0.289058941471	0.9701	1.5837	1.5837	1.5837	0.9559	0.293
1	18837	0.491271528606	0.491099718165	0.5240	0.7433	4.1933	0.0000	0.4641	0.00319025773626
2	40	0.491271528606	0.648043248729	1.2124	0.5441	1.7727	0.0197	0.8827	-2.5458
3	1	0.491271528606	0.0	N/A	N/A	N/A	N/A	1.95	-3.799
4	1	0.491271528606	0.0	N/A	N/A	N/A	N/A	0.9895	0.271
5	1	0.491271528606	0.0	N/A	N/A	N/A	N/A	0.6755	-0.779
6	2	0.491271528606	-0.289058941471	0.9701	1.5837	1.5837	1.5837	0.9559	0.293
1	18823	0.482168088907	0.481806291353	0.5236	0.7422	4.1933	0.0000	0.4633	0.00034917521177
2	54	0.482168088907	0.663642821825	1.1384	0.5178	1.8212	0.0128	0.8338	-2.447
3	1	0.482168088907	0.0	N/A	N/A	N/A	N/A	0.9895	0.271
4	1	0.482168088907	0.0	N/A	N/A	N/A	N/A	1.95	-3.799
5	2	0.482168088907	-0.289339885663	0.9701	1.5837	1.5837	1.5837	0.9559	0.293
6	1	0.482168088907	0.0	N/A	N/A	N/A	N/A	0.6755	-0.779
1	18825	0.483203764549	0.482858234986	0.5237	0.7423	4.1933	0.0000	0.4635	0.00886948026573
2	52	0.483203764549	0.665880908757	1.1463	0.5147	1.7727	0.0128	0.8349	-2.47366666667
3	1	0.483203764549	0.0	N/A	N/A	N/A	N/A	0.9895	0.271
4	1	0.483203764549	0.0	N/A	N/A	N/A	N/A	1.95	-3.799
5	1	0.483203764549	0.0	N/A	N/A	N/A	N/A	0.6755	-0.779
6	2	0.483203764549	-0.289299327087	0.9701	1.5837	1.5837	1.5837	0.9559	0.293

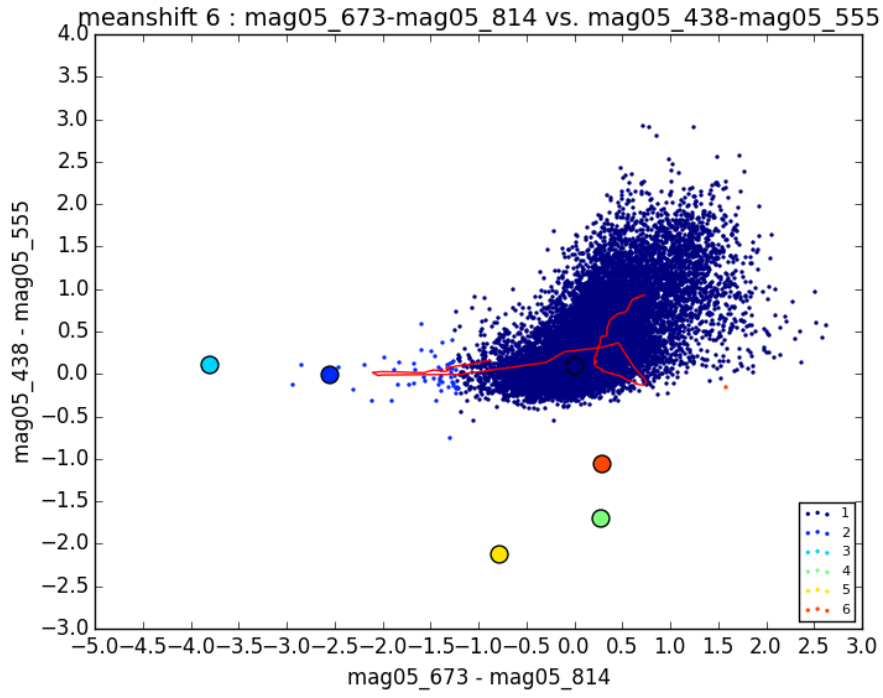


Figure 23: meanshift\_color\_6cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

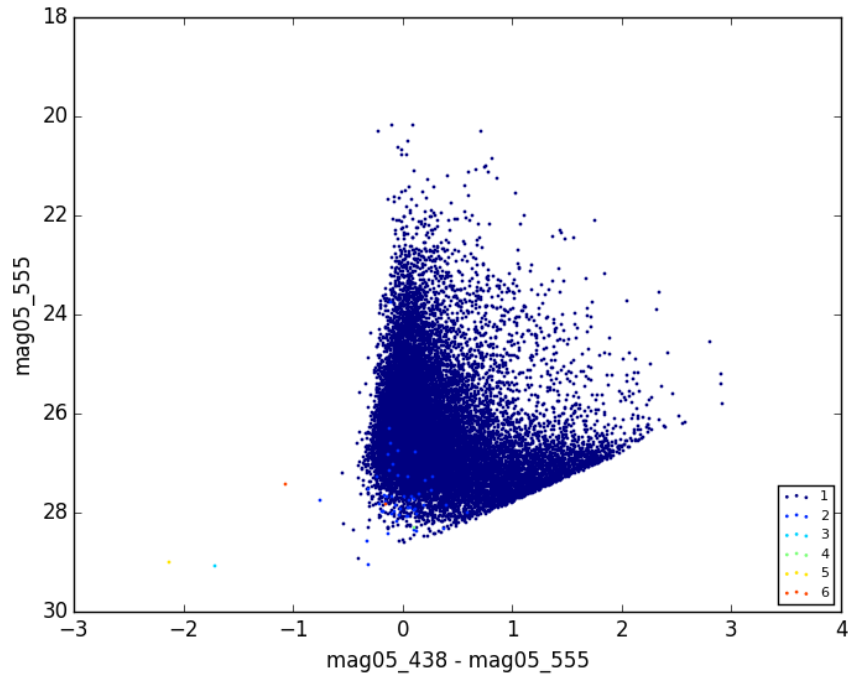


Figure 24: meanshift\_CMD\_6cl\_mag05\_438-mag05\_555vsmag05\_555.png

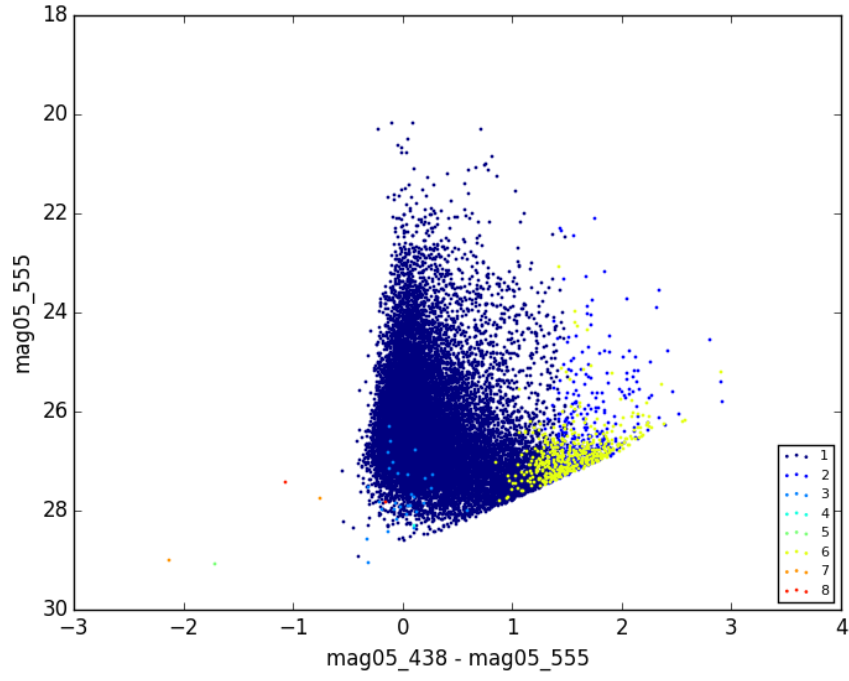


Figure 25: meanshift\_CMD\_8cl\_mag05\_438-mag05\_555vsmag05\_555.png

### meanshift results, Ncl=8

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	17974	0.441123288733	0.443933213007	0.4401	0.6506	4.0584	0.0000	0.3968	-0.00557105237491
2	444	0.441123288733	0.380529141442	1.3038	0.4295	1.6493	0.0020	0.524	0.784
3	30	0.441123288733	0.610947673362	1.2886	0.5472	1.5621	0.0197	0.9394	-2.745666666667
4	1	0.441123288733	0.0	N/A	N/A	N/A	N/A	1.95	-3.799
5	1	0.441123288733	0.0	N/A	N/A	N/A	N/A	0.9895	0.271
6	428	0.441123288733	0.382983383375	1.4849	0.4469	2.3068	0.0010	0.2783	1.248
7	2	0.441123288733	-0.290109544457	1.3583	1.4672	1.4672	1.4672	0.5573	-0.779
8	2	0.441123288733	-0.292835359056	0.9701	1.5837	1.5837	1.5837	0.9559	0.293

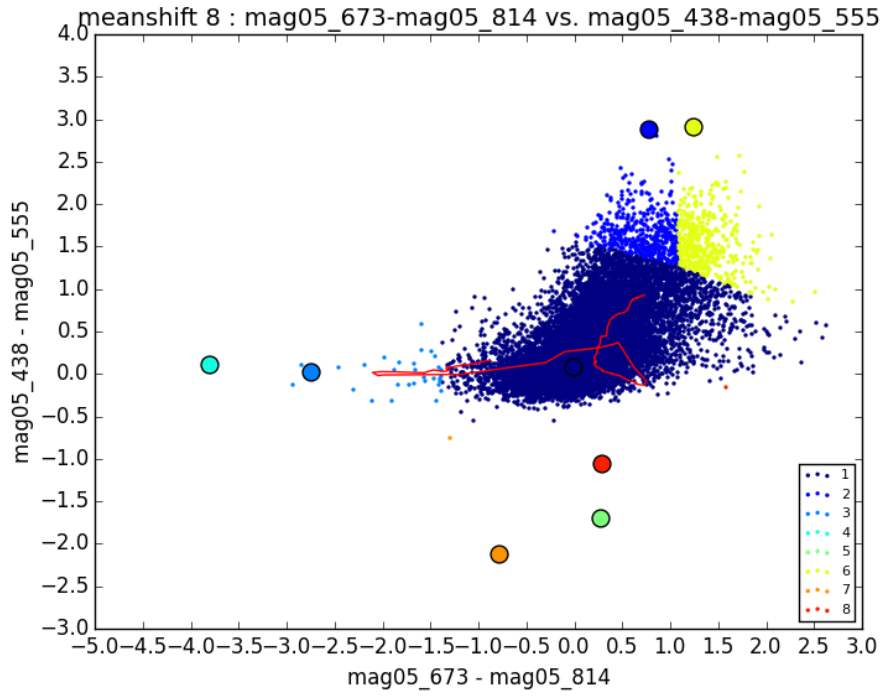


Figure 26: meanshift\_color\_8cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

### meanshift results, Ncl=9

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	17830	0.422032543494	0.42508470804	0.4318	0.6390	3.8525	0.0000	0.3888	-0.00938310626703
2	808	0.422032543494	0.346967914329	1.3148	0.4993	1.9452	0.0010	0.4413	0.83475
3	75	0.422032543494	0.646841580615	1.0213	0.4354	1.4883	0.0000	0.7503	-2.26525
4	2	0.422032543494	0.723579111426	2.0459	0.2549	0.2549	0.2549	1.4431	-2.8905
5	1	0.422032543494	0.0	N/A	N/A	N/A	N/A	1.95	-3.799
6	1	0.422032543494	0.0	N/A	N/A	N/A	N/A	0.6755	-0.779
7	162	0.422032543494	0.369356916315	1.6173	0.5190	2.3068	0.0054	0.3057	1.248
8	1	0.422032543494	0.0	N/A	N/A	N/A	N/A	0.9895	0.271
9	2	0.422032543494	-0.294015046399	0.9701	1.5837	1.5837	1.5837	0.9559	0.293

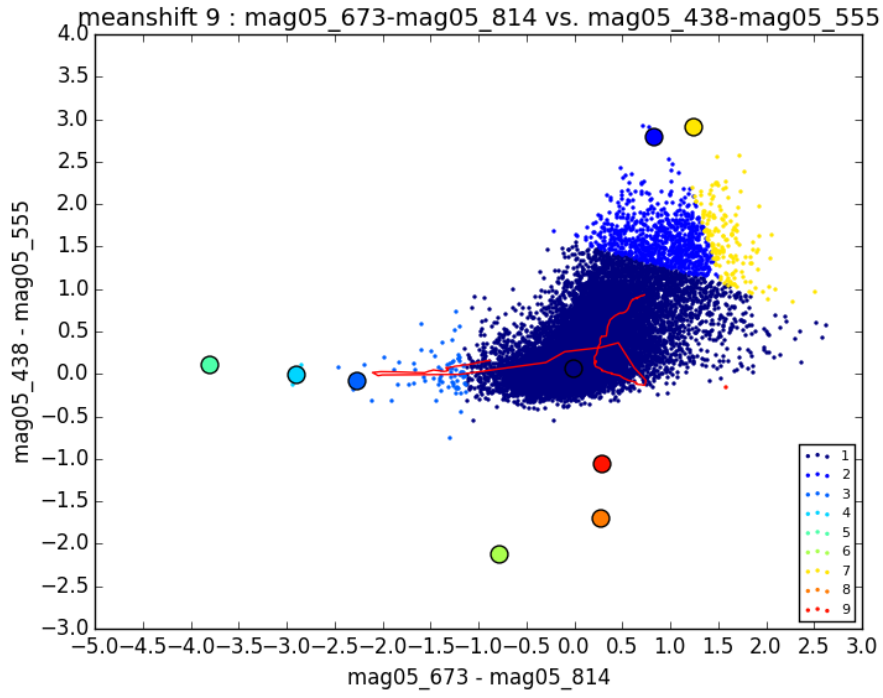


Figure 27: meanshift\_color\_9cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

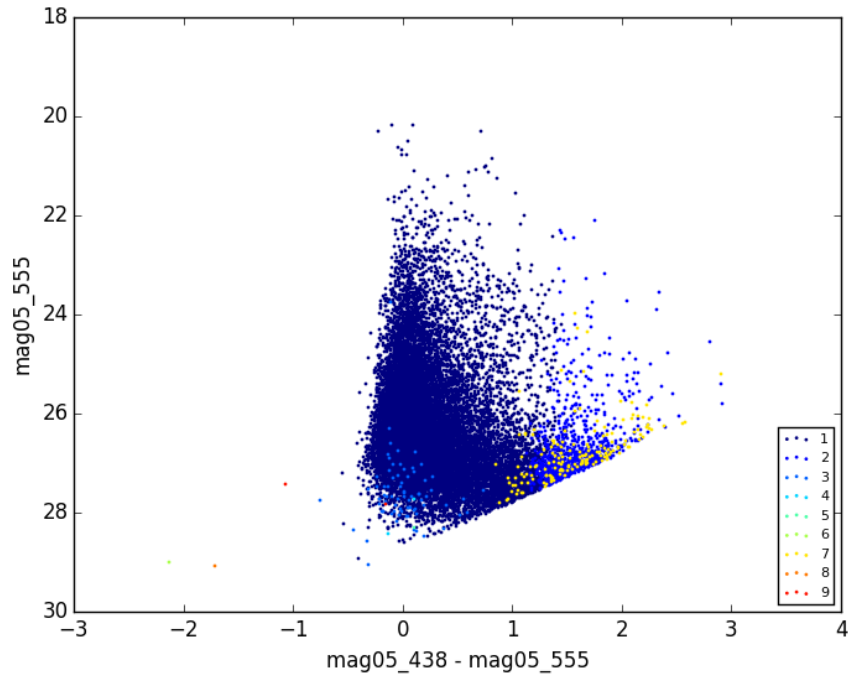


Figure 28: meanshift\_CMD\_9cl\_mag05\_438-mag05\_555vsmag05\_555.png

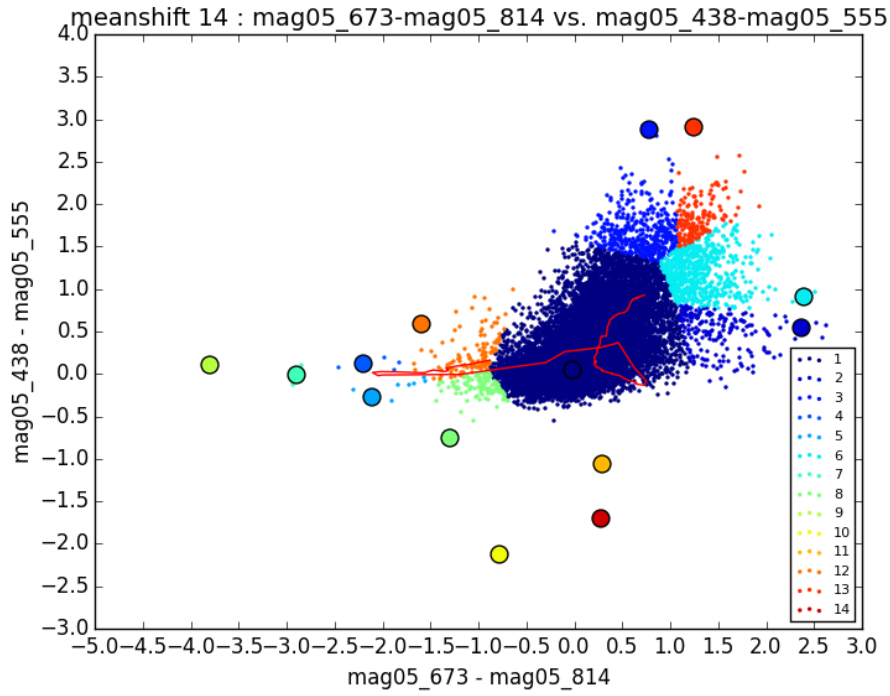


Figure 29: meanshift\_color\_14cl\_mag05\_673-mag05\_814vsmag05\_438-mag05\_555.png

### meanshift results, Ncl=14

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	17226	0.330407450607	0.330778534578	0.3942	0.5877	2.2451	0.0000	0.3547	-0.0144833354454
2	198	0.330407450607	0.404398241106	1.1427	0.4736	1.5438	0.0020	0.5665	2.37
3	428	0.330407450607	0.32694260146	1.3014	0.4196	1.5897	0.0020	0.541	0.784
4	5	0.330407450607	0.210599295958	1.4711	0.3323	0.6343	0.1019	1.1009	-2.206
5	8	0.330407450607	0.270012499899	1.3162	0.3468	0.7640	0.0402	0.8562	-2.107
6	610	0.330407450607	0.256120400633	1.2719	0.4134	1.6431	0.0000	0.2396	2.3935
7	2	0.330407450607	0.692610148198	2.0459	0.2549	0.2549	0.2549	1.4431	-2.8905
8	121	0.330407450607	0.49346452044	0.7162	0.2451	0.8712	0.0000	0.4387	-1.291
9	1	0.330407450607	0.0	N/A	N/A	N/A	N/A	1.95	-3.799
10	1	0.330407450607	0.0	N/A	N/A	N/A	N/A	0.6755	-0.779
11	1	0.330407450607	0.0	N/A	N/A	N/A	N/A	0.6795	0.293
12	117	0.330407450607	0.186833802283	0.7963	0.3732	1.3943	0.0045	0.6892	-1.594
13	163	0.330407450607	0.480733972802	1.5981	0.3301	1.3999	0.0010	0.3399	1.248
14	1	0.330407450607	0.0	N/A	N/A	N/A	N/A	0.9895	0.271

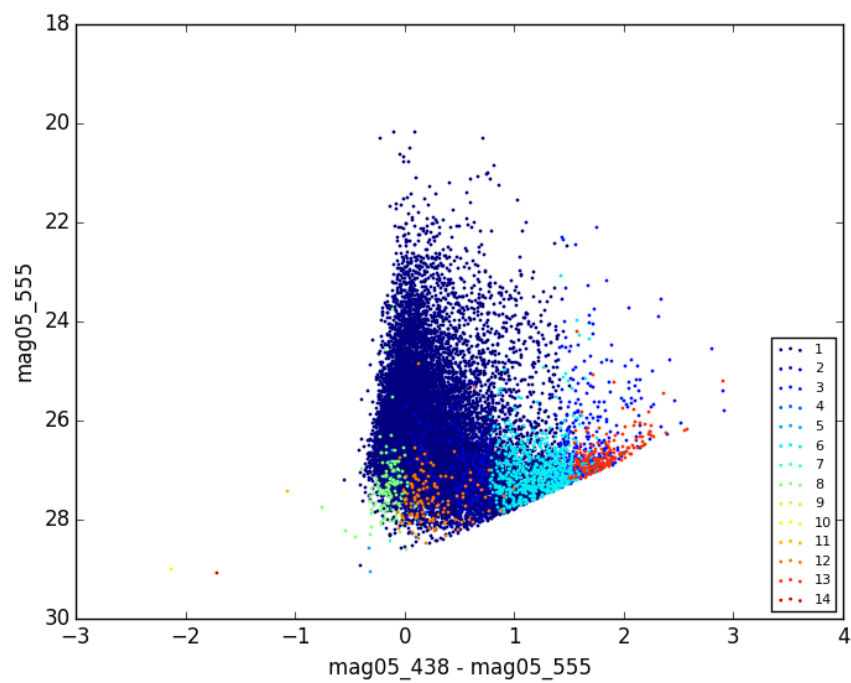


Figure 30: meanshift\_CMD\_14cl\_mag05\_438-mag05\_555vsmag05\_555.png