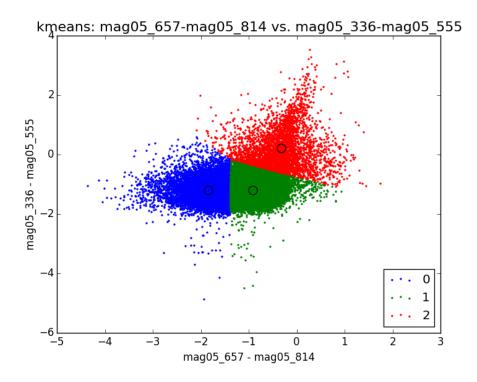
# K-means results

Nclust	inertia	score	TotObj	N1	N2	N3	N4	N5	N6	N7	N8
3	8989.85834292	0.380930600272	29060	13060	12429	3571	0	0	0	0	0
4	7408.80398039	0.342163779776	29060	10710	10663	5670	2017	0	0	0	0
5	6094.01943102	0.338758878664	29060	8817	8094	6837	3649	1663	0	0	0
6	5092.66578761	0.336181609564	29060	7531	6564	5539	5234	2816	1376	0	0
7	4567.41772501	0.329142617325	29060	7139	5767	4512	4340	3537	2410	1355	0
8	4108.68236447	0.329437492489	29060	6633	5393	5037	4131	3324	1887	1710	945



 $Figure~1:~kmeans\_col\_3cl\_mag05\_657-mag05\_814vsmag05\_336-mag05\_555.png$ 

Cluster	Nobj	tScore	cScore	${ m rms}$	AvgDist	MaxDist	MinDist	$\operatorname{Stdev}$	Cen1
1	12429	0.380930600272	0.384957395272	1.5936	0.6286	5.4414	0.0000	0.4859	-1.83575935313
2	13060	0.380930600272	0.385487945112	1.1233	0.6083	4.3144	0.0000	0.3752	-0.913613935681
3	3571	0.380930600272	0.350247889915	0.6506	1.0178	4.7815	0.0010	0.6488	-0.312041725007

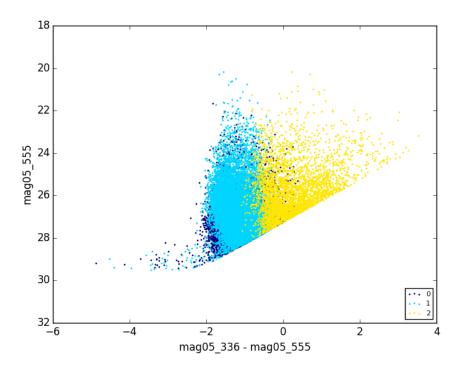
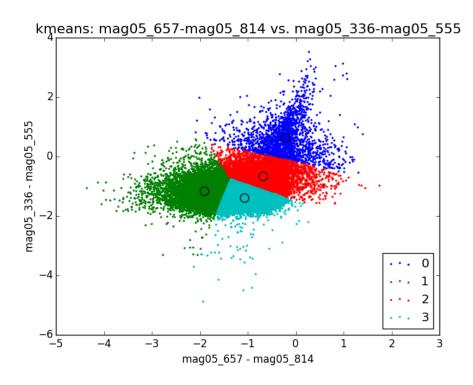
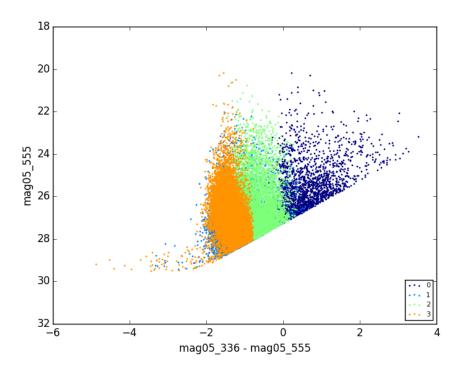


Figure 2: kmeans\_CMD\_3cl\_mag05\_336-mag05\_555vsmag05\_555.png

Cluster	Nobj	tScore	cScore	${ m rms}$	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	2017	0.342163779776	0.358488894163	0.7227	0.9413	4.1906	0.0010	0.6924	-0.213134357957
2	10663	0.342163779776	0.353415114257	1.6162	0.6052	3.9533	0.0000	0.5084	-1.89936603207
3	5670	0.342163779776	0.240692015526	0.7779	0.6803	3.7691	0.0000	0.3901	-0.675550970018
4	10710	0.342163779776	0.381607679683	1.2679	0.5021	4.1315	0.0000	0.3325	-1.05971484594



 $Figure~3:~kmeans\_col\_4cl\_mag05\_657-mag05\_814vsmag05\_336-mag05\_555.png$ 



 $Figure~4:~kmeans\_CMD\_4cl\_mag05\_336-mag05\_555vsmag05\_555.png$ 

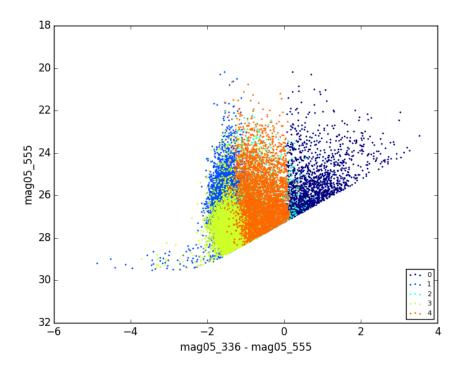
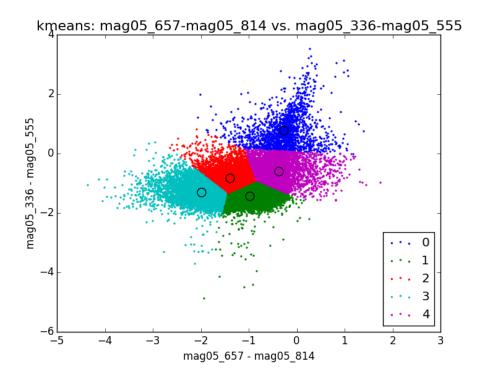


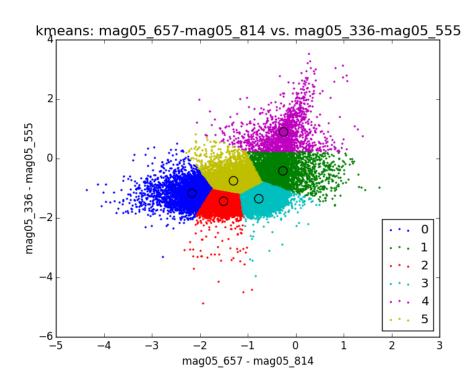
Figure 5: kmeans\_CMD\_5cl\_mag05\_336-mag05\_555vsmag05\_555.png

Cluster	Nobj	tScore	cScore	${ m rms}$	AvgDist	MaxDist	$\operatorname{MinDist}$	Stdev	Cen1	
1	1663	0.338758878664	0.375745870933	0.7767	0.8876	3.7625	0.0010	0.7332	-0.259827420325	0
2	8817	0.338758878664	0.373808046226	1.2566	0.4758	4.1131	0.0000	0.3618	-0.968122377226	-
3	6837	0.338758878664	0.322116400792	1.1792	0.4753	2.2280	0.0000	0.3886	-1.38636434109	-(
4	8094	0.338758878664	0.328963925409	1.7115	0.5576	4.1687	0.0000	0.475	-1.98524462565	-
5	3649	0.338758878664	0.290122839838	0.6225	0.6623	3.0567	0.0000	0.3944	-0.369301452453	-(



 $Figure~6:~kmeans\_col\_5cl\_mag05\_657-mag05\_814vsmag05\_336-mag05\_555.png$ 

Cluster	Nobi	tScore	cScore	${ m rms}$	AvgDist	MaxDist	MinDist	Stdev	Cen1	
Cluster	rvooj	tocorc	COCOIC	11115	TivgDisc	Mandist	WIIIIDISU	Didev	CCIII	
1	5234	0.336181609564	0.288975373194	1.7634	0.5449	3.8239	0.0000	0.5915	-2.15689969431	-
2	2816	0.336181609564	0.298310087695	0.5157	0.6668	2.9974	0.0010	0.3887	-0.261664417614	-(
3	7531	0.336181609564	0.354184380061	1.4832	0.4007	3.8697	0.0000	0.24	-1.4976138627	-
4	6564	0.336181609564	0.391797212979	1.1319	0.4324	3.1722	0.0000	0.386	-0.765967245582	-
5	1376	0.336181609564	0.378645717727	0.8300	0.8546	3.6991	0.0010	0.7652	-0.253623546512	0
6	5539	0.336181609564	0.299108735127	1.0919	0.4772	2.1667	0.0000	0.3911	-1.29650965878	-(



 $Figure~7:~kmeans\_col\_6cl\_mag05\_657-mag05\_814vsmag05\_336-mag05\_555.png$ 

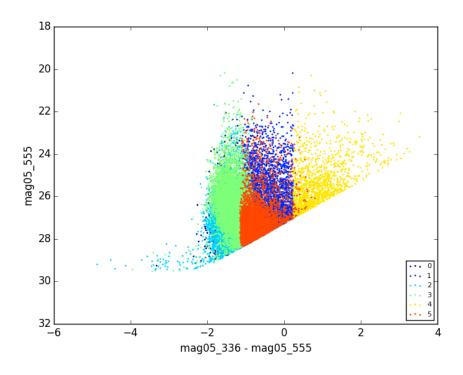
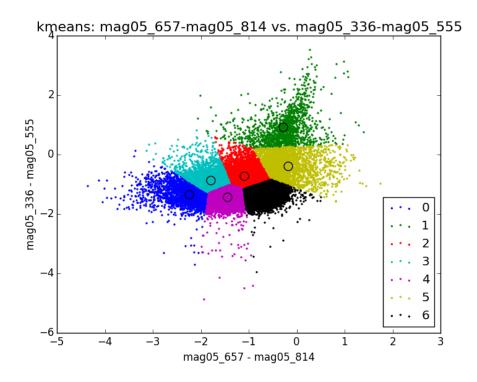


Figure 8: kmeans\_CMD\_6cl\_mag05\_336-mag05\_555vsmag05\_555.png



 $Figure~9:~kmeans\_col\_7cl\_mag05\_657-mag05\_814vsmag05\_336-mag05\_555.png$ 

Cluster	Nobj	tScore	cScore	${ m rms}$	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	3537	0.329142617325	0.280767067792	1.8791	0.5130	4.0285	0.0000	0.5429	-2.24425106022	
2	1355	0.329142617325	0.375627808791	0.8378	0.8482	3.7277	0.0010	0.7765	-0.278033210332	
3	4512	0.329142617325	0.306810535641	0.9567	0.4437	1.8567	0.0000	0.3134	-1.08505629433	-
4	4340	0.329142617325	0.31386342649	1.4311	0.4129	2.1597	0.0000	0.514	-1.78600414747	-
5	7139	0.329142617325	0.339328219148	1.4562	0.3858	3.8824	0.0000	0.2281	-1.43696302003	
6	2410	0.329142617325	0.291585670719	0.4841	0.6619	2.8750	0.0010	0.3939	-0.171914937759	-
7	5767	0.329142617325	0.379946875161	1.1322	0.4160	3.1201	0.0000	0.4022	-0.733184498006	

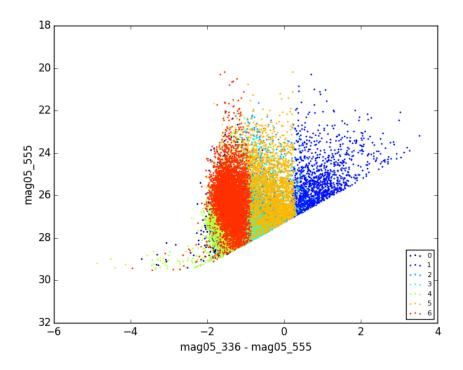


Figure 10: kmeans\_CMD\_7cl\_mag05\_336-mag05\_555vsmag05\_555.png

Cluster	Nobj	tScore	cScore	${ m rms}$	AvgDist	MaxDist	$\operatorname{MinDist}$	Stdev	Cen1	
1	945	0.329437492489	0.358958181029	0.9080	0.7907	3.6178	0.0010	0.7551	-0.0846592592593	
2	5037	0.329437492489	0.33197471701	1.0054	0.3813	1.1240	0.0000	0.2358	-1.07721242803	
3	1887	0.329437492489	0.272915632358	0.5923	0.6066	2.4369	0.0010	0.4503	-0.104008479067	
4	6633	0.329437492489	0.343221858322	1.5050	0.3794	3.8227	0.0000	0.2257	-1.51658857229	
5	4131	0.329437492489	0.30521035554	1.3986	0.4112	2.1635	0.0000	0.5118	-1.75119414185	
6	3324	0.329437492489	0.288346619347	1.8833	0.5124	3.4917	0.0000	0.5818	-2.28537123947	
7	1710	0.329437492489	0.288446972455	0.5661	0.6061	2.5849	0.0010	0.4906	-0.631215204678	
8	5393	0.329437492489	0.381599583205	1.1855	0.3949	3.5728	0.0000	0.4069	-0.777099758947	

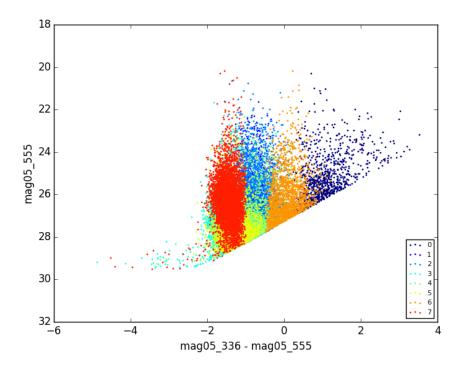
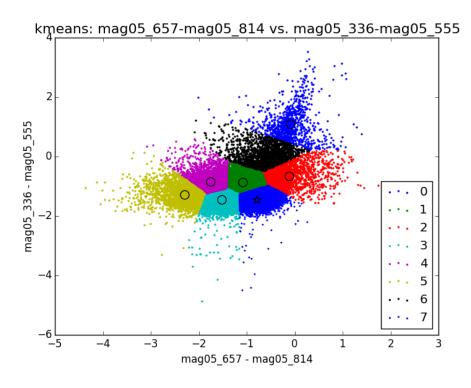


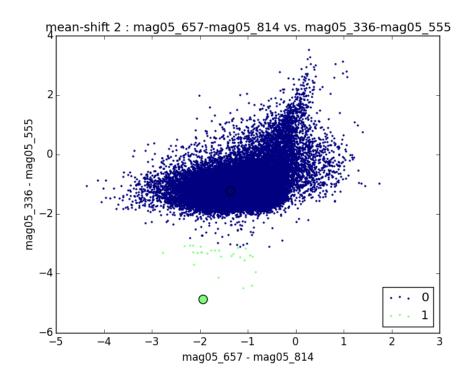
Figure 11: kmeans\_CMD\_8cl\_mag05\_336-mag05\_555vsmag05\_555.png



 $Figure~12:~kmeans\_col\_8cl\_mag05\_657-mag05\_814vsmag05\_336-mag05\_555.png$ 

# Meanshift results

Bandw	Nclust	score	TotObj	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10
0.7509	2	0.588825162383	29060	29032	28	0	0	0	0	0	0	0	0
0.4500	14	0.203100926708	29060	26322	1204	467	440	380	108	48	44	32	8
0.5000	9	0.290548814519	29060	27780	766	355	58	53	41	4	2	1	0
0.5500	6	0.393173224336	29060	28315	648	89	5	2	1	0	0	0	0
0.6000	5	0.425265706989	29060	28971	83	3	2	1	0	0	0	0	0



 $Figure~13:~meanshift\_color\_2cl\_mag05\_657-mag05\_814vsmag05\_336-mag05\_555.png$ 

Cluster	Nobj	tScore	cScore	${ m rms}$	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	29032	0.588825162383	0.588738688942	1.3037	1.0742	6.9083	0.0000	0.6511	-1.35974652098	-1
2	28	0.588825162383	0.678485766937	2.7643	0.8524	2.1545	0.0214	1.0523	-1.924	

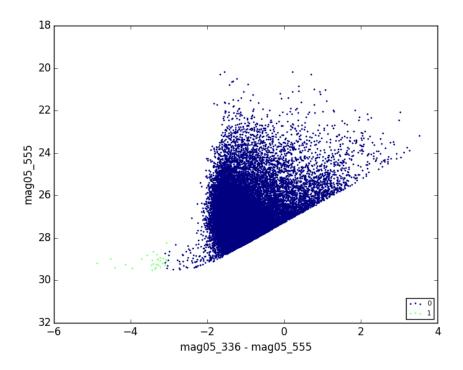


Figure 14: meanshift\_CMD\_2cl\_mag05\_336-mag05\_555vsmag05\_555.png

Cluster	Nobj	tScore	cScore	${ m rms}$	AvgDist	MaxDist	$\operatorname{MinDist}$	Stdev	Cen1	
1	28971	0.425265706989	0.425820129042	1.3013	1.0714	6.9083	0.0000	0.6498	-1.37947480124	-1
2	83	0.425265706989	0.23569862455	2.2768	0.9508	2.9206	0.0163	0.7484	-1.59028571429	-3
3	3	0.425265706989	0.575203487003	3.1134	0.4251	0.6107	0.2047	1.6822	-0.948	-4
4	1	0.425265706989	0.0	N/A	N/A	N/A	N/A	1.471	-1.924	
5	2	0.425265706989	0.248945172746	3.0788	0.6698	0.6698	0.6698	1.0581	-1.602	

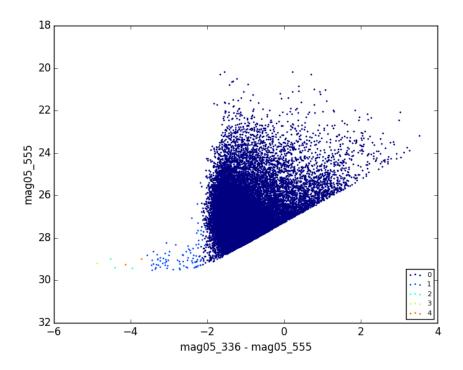
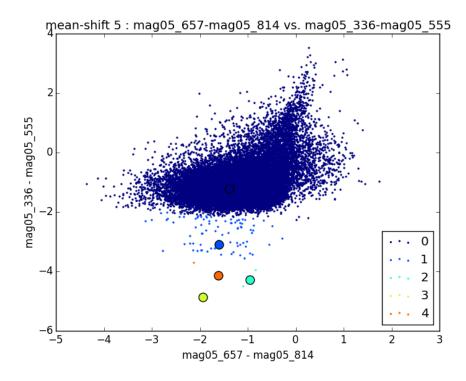
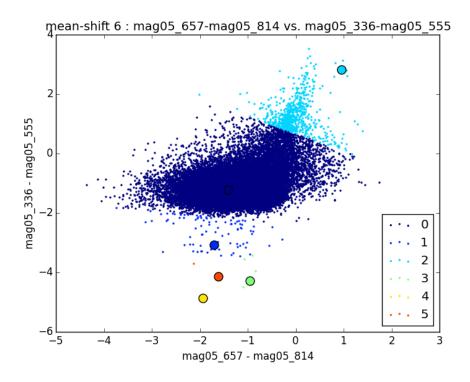


Figure 15: meanshift\_CMD\_5cl\_mag05\_336-mag05\_555vsmag05\_555.png



 $Figure~16:~meanshift\_color\_5cl\_mag05\_657-mag05\_814vsmag05\_336-mag05\_555.png$ 



 $Figure~17:~meanshift\_color\_6cl\_mag05\_657-mag05\_814vsmag05\_336-mag05\_555.png$ 

Cluster	Nobj	tScore	cScore	${ m rms}$	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	28315	0.393173224336	0.386212036927	1.3065	0.9933	6.1026	0.0000	0.5861	-1.40069365785	-1
2	89	0.393173224336	0.200708657918	2.2836	0.9829	3.6206	0.0081	0.6975	-1.6978	
3	648	0.393173224336	0.724924234357	1.0255	0.7679	3.7625	0.0010	0.7987	0.96	2.
4	5	0.393173224336	0.365654730595	2.9081	0.6358	1.0936	0.2047	1.5376	-0.948	-4
5	1	0.393173224336	0.0	N/A	N/A	N/A	N/A	1.471	-1.924	
6	2	0.393173224336	0.28891277461	3.0788	0.6698	0.6698	0.6698	1.0581	-1.602	

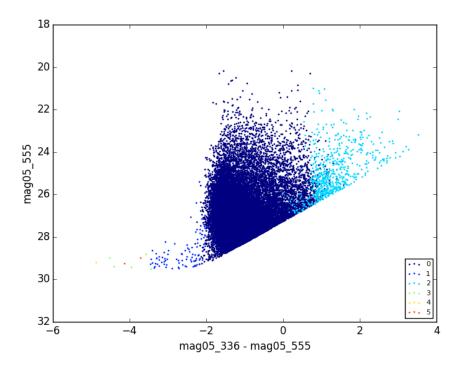
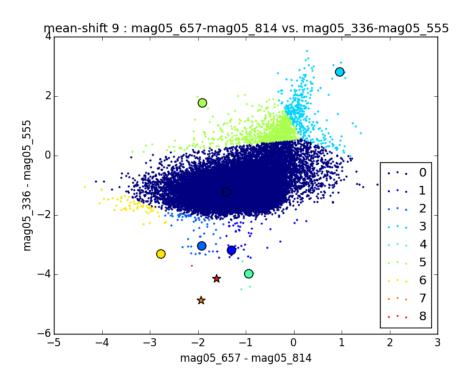
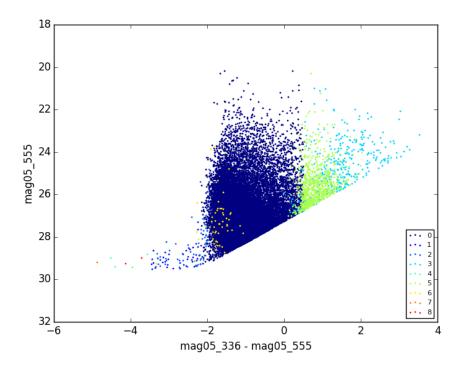


Figure 18: meanshift\_CMD\_6cl\_mag05\_336-mag05\_555vsmag05\_555.png

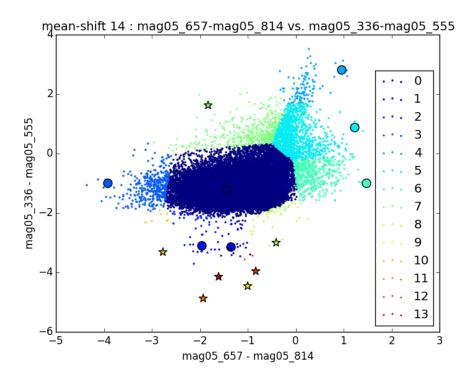
Cluster	Nobj	tScore	cScore	${ m rms}$	AvgDist	MaxDist	MinDist	Stdev	Cen1	
1	27780	0.290548814519	0.287568383686	1.3092	0.9538	5.8761	0.0000	0.5587	-1.4055864192	-
2	41	0.290548814519	0.306583146305	2.0881	0.7322	2.2008	0.0163	0.9517	-1.29665	
3	58	0.290548814519	0.301144379281	2.2889	0.6598	1.6071	0.0081	0.4134	-1.91689473684	
4	355	0.290548814519	0.285659299994	1.1623	0.8506	3.6626	0.0022	0.8068	0.96	2
5	4	0.290548814519	0.389857649223	2.9994	0.5919	0.9513	0.2047	1.5897	-0.940333333333	-:
6	766	0.290548814519	0.378596671163	0.8327	0.7121	3.5249	0.0010	0.8239	-1.898	
7	53	0.290548814519	0.588120629752	2.6727	0.5661	2.7468	0.0133	0.8678	-2.774	
8	1	0.290548814519	0.0	N/A	N/A	N/A	N/A	1.471	-1.924	
9	2	0.290548814519	0.25932127314	3.0788	0.6698	0.6698	0.6698	1.0581	-1.602	



 $Figure~19:~meanshift\_color\_9cl\_mag05\_657-mag05\_814vsmag05\_336-mag05\_555.png$ 

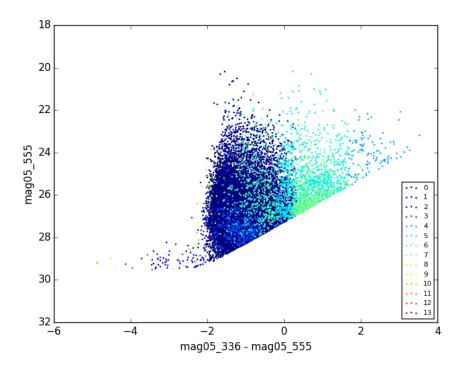


 $Figure~20:~meanshift\_CMD\_9cl\_mag05\_336-mag05\_555vsmag05\_555.png$ 



 $Figure~21:~meanshift\_color\_14cl\_mag05\_657-mag05\_814vsmag05\_336-mag05\_555.png$ 

Cluster	Nobj	tScore	cScore	rms	AvgDist	MaxDist	MinDist	Stdev	Cen1
1	26322	0.203100926708	0.188653954612	1.3170	0.8557	3.0597	0.0000	0.4926	-1.42890812684
2	32	0.203100926708	0.200224802288	2.1709	0.5700	1.2754	0.0163	0.8154	-1.35376470588
3	48	0.203100926708	0.0990311718054	2.3326	0.6808	1.8441	0.0081	0.4371	-1.9590625
4	380	0.203100926708	0.474925302902	2.2895	0.6030	2.2695	0.0032	1.0071	-3.92142857143
5	108	0.203100926708	0.656668368111	1.6234	0.5808	1.8901	0.0067	1.0785	0.96
6	1204	0.203100926708	0.241075089453	0.5679	0.6912	2.1410	0.0010	0.4956	1.2325
7	467	0.203100926708	0.526390355326	0.6498	0.5702	1.9396	0.0014	0.625	1.47525
8	440	0.203100926708	0.254004234011	0.9571	0.7648	3.0321	0.0010	0.9519	-1.82633333333
9	44	0.203100926708	0.449214587128	1.5185	0.5448	1.5802	0.0130	0.8861	-0.4075
10	2	0.203100926708	0.699570135903	3.2331	0.2047	0.2047	0.2047	1.7293	-1.004
11	8	0.203100926708	0.450859327783	2.5909	0.5242	1.4123	0.0525	0.4059	-2.774
12	1	0.203100926708	0.0	N/A	N/A	N/A	N/A	1.471	-1.924
13	3	0.203100926708	0.399674906198	2.6696	0.3991	0.5273	0.2092	1.3674	-0.836
14	1	0.203100926708	0.0	N/A	N/A	N/A	N/A	1.267	-1.602



 $Figure~22:~meanshift\_CMD\_14cl\_mag05\_336-mag05\_555vsmag05\_555.png$