

Star-forming galaxies in nearby northern clusters.

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A two-fold effect acting on gas rich disk galaxies :

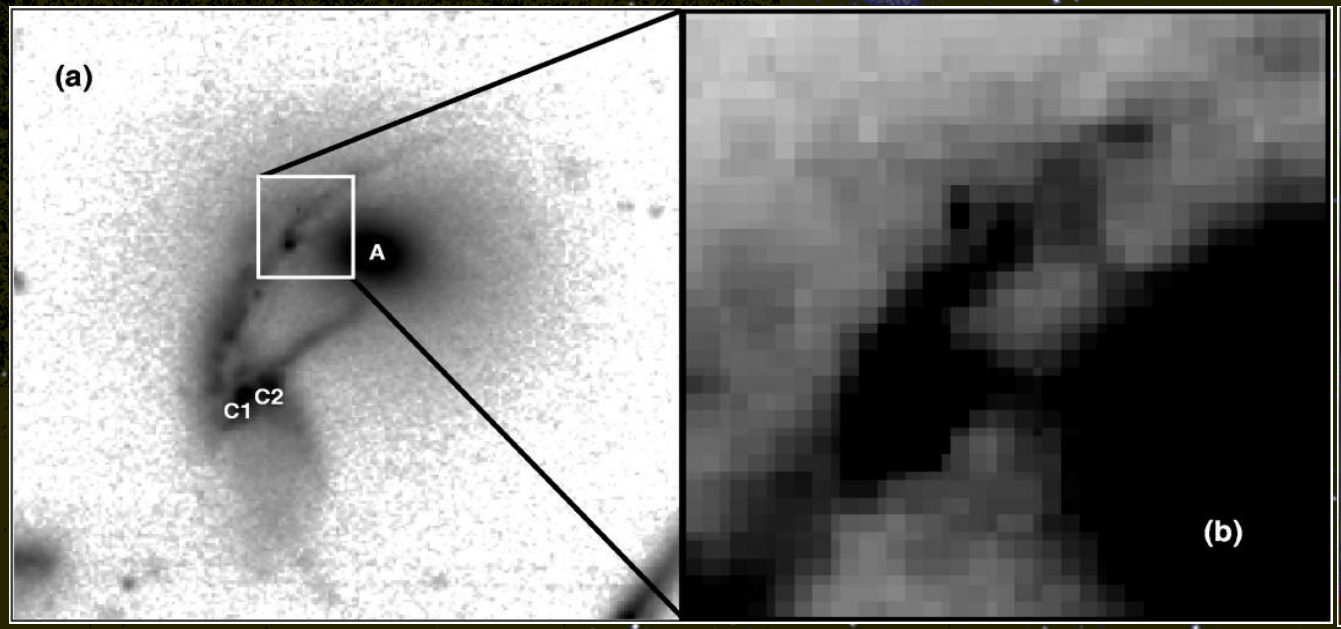
1.- Inhibition of "standard" SF activity in disks

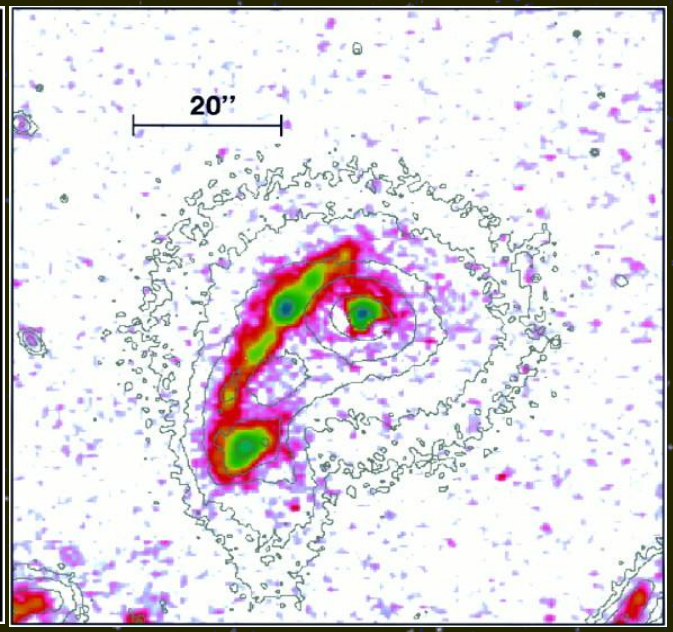
in very high density environments:

-Ram pressure stripping, gas removal, Harassment, [especially in clusters].

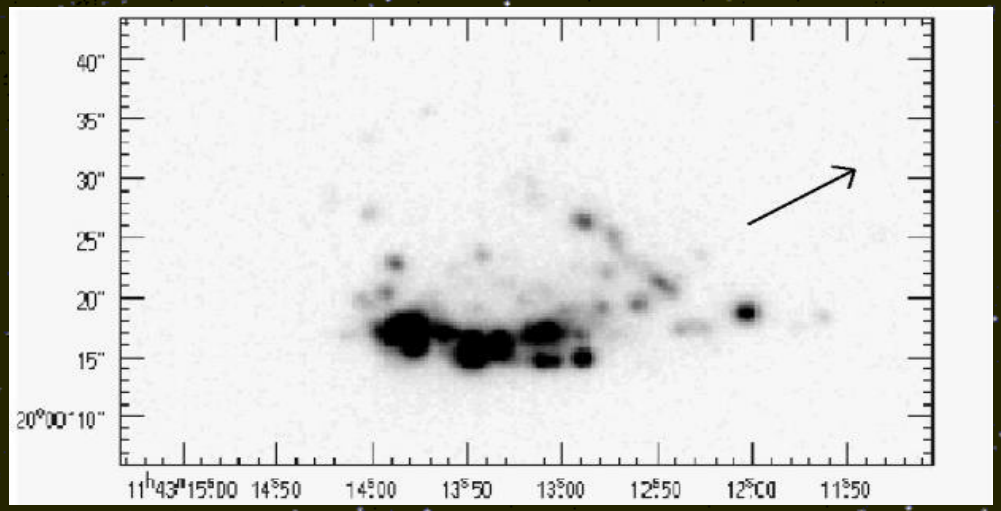
2.- Enhancement in central parts or in tidal tips Starburst.

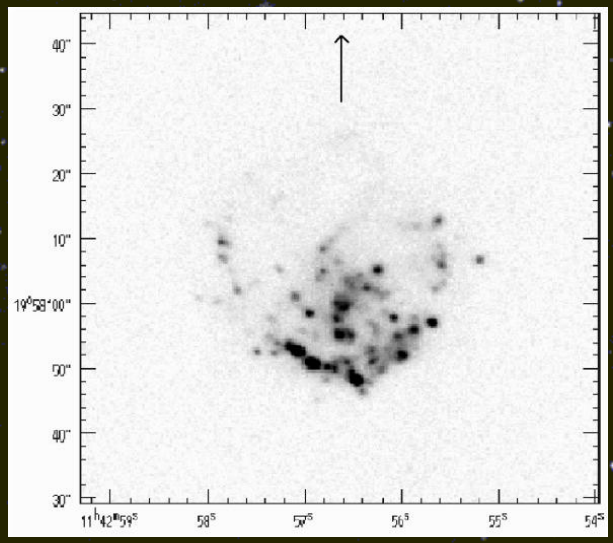
-Galaxy Mergers, Close Encounters, Harassment.





Hickson Compact Group 95. V Band and Hα.





Abell 1367. Two irregular galaxies with clear star formation activity.

Motivations

- Environmental effects on Star Formation in Galaxies:

✓ The study of the population of emission line galaxies in nearby clusters is a necessary step towards our understanding of the evolution of galaxies in dense environments and earlier epochs.

- We report here on the study of star-forming galaxies detected in our sample of nearby northern clusters.

✓ We aim to build up a firm local basis to compare with observations of galaxies in more distant clusters:

- We have selected a complete sample of northern clusters ($\delta > -25^{\circ}$) in the velocity range from 6000 to 9000 Km/s

The sample

Wide range of properties. Deep image in narrow band

Sample Properties.-

Just two restrictions:

REDSHIFT between 0.02 and 0.03.

DECLINATION greater than -25º.

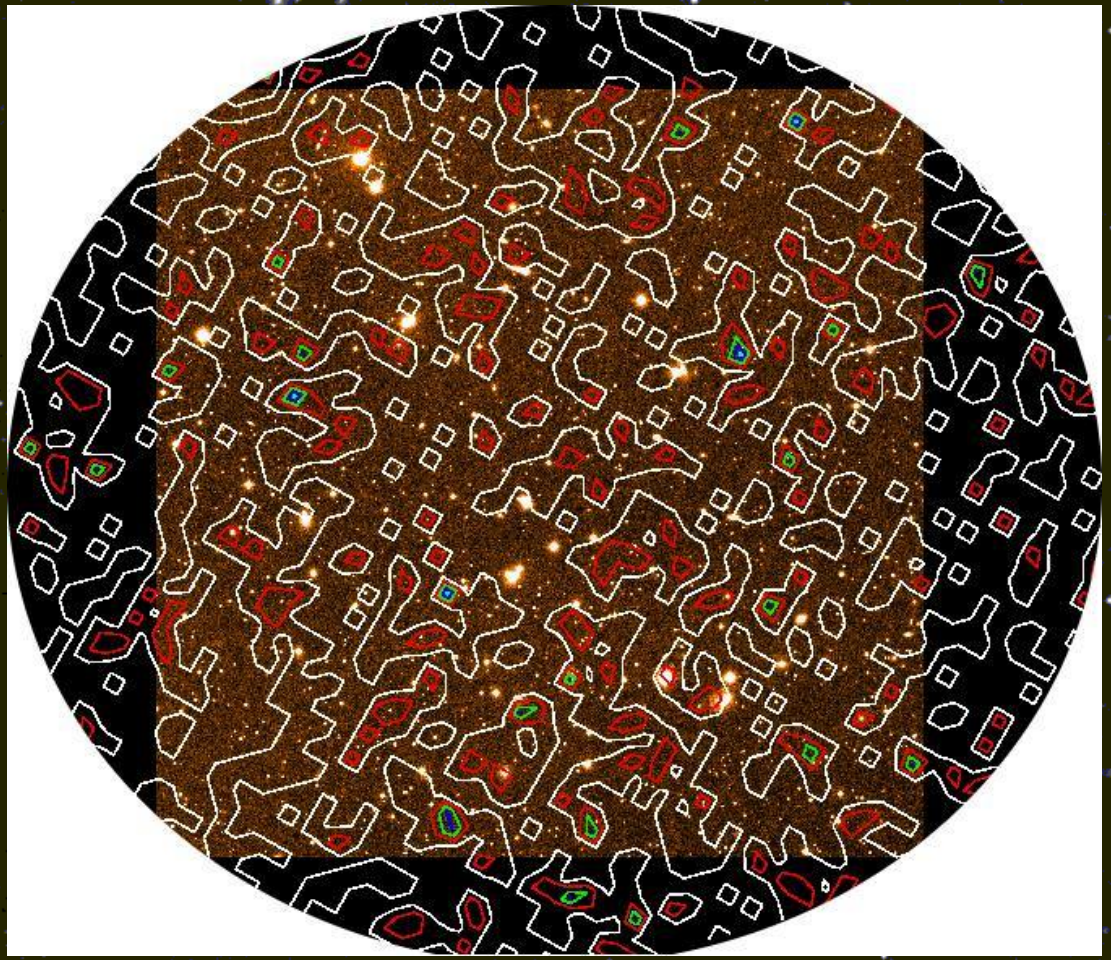
Most important known properties of our sample are in the following chart:

Name	Right Asc.[1]	Declinat.[1]	Vel[1]	Redshift[1]	σ_v [4] (km/s)	L_x(bol)[2]	BM type[1]	Richness Class[1]	Abell[3] Radius
Abell 400	$2^h\ 57^m\ 38.6^s$	+06º 02' 00"	7315	0.0244	610	7.56 ± 0.65	II-III	89	77
Abell 539	$5^h\ 16^m\ 35.1^s$	+06º 27' 14"	8514	0.0284	629	13.00 ± 0.28	III	111	62
Abell 634	$8^h\ 14^m\ 33.7^s$	+58º 02' 52"	7945	0.0265	391	*0.006:*	III		66
Abell 779	$9^h\ 19^m\ 50.8^s$	+33º 46' 17"	6742	0.0225	339	2.00 ± 0.19	I-II	83	75
Abell 1367	$11^h\ 44^m\ 29.5^s$	+19º 50' 21"	6595	0.0220	879	17.60 ± 0.52	II-III	85	80
Abell 1656	$12^h\ 59^m\ 48.7^s$	+27º 58' 50"	6925	0.0231	1008	156.0 ± 8.30	II	484	74
Abell 2666	$23^h\ 50^m\ 56.2^s$	+27º 08' 41"	8042	0.0268	518	*0.095:*	I	49	64

(1) Data taken from NASA Extragalactic Database.
(2) Data taken from White, Jones & Forman (1997).
(3) Data taken from Abell, Corwin & Olowin (1989).
(4) Others.

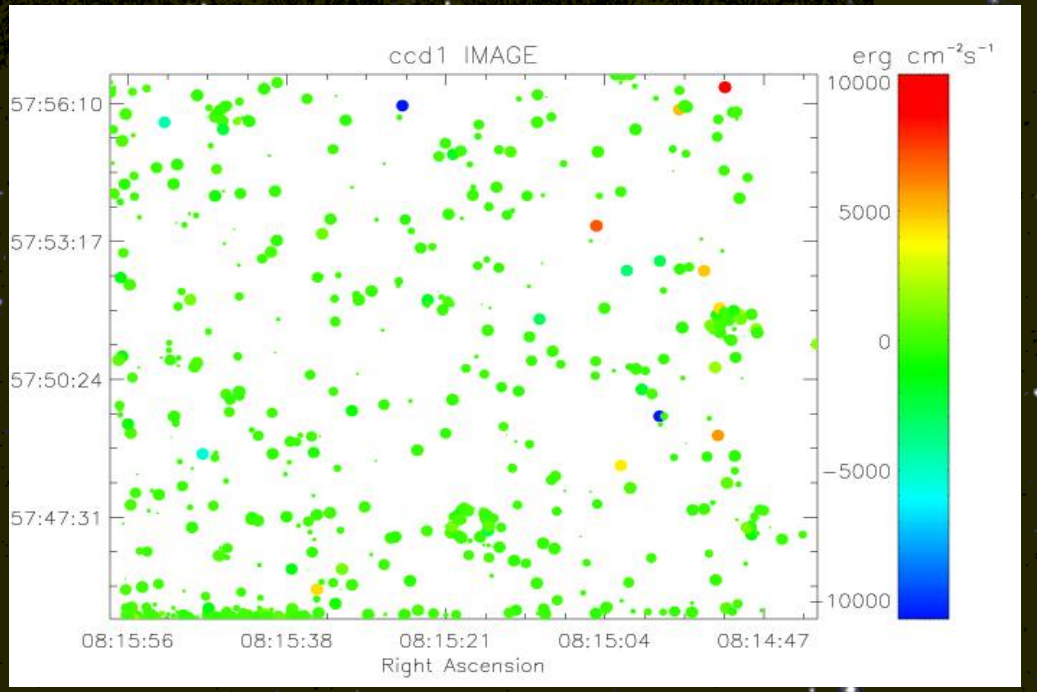
Abell 634

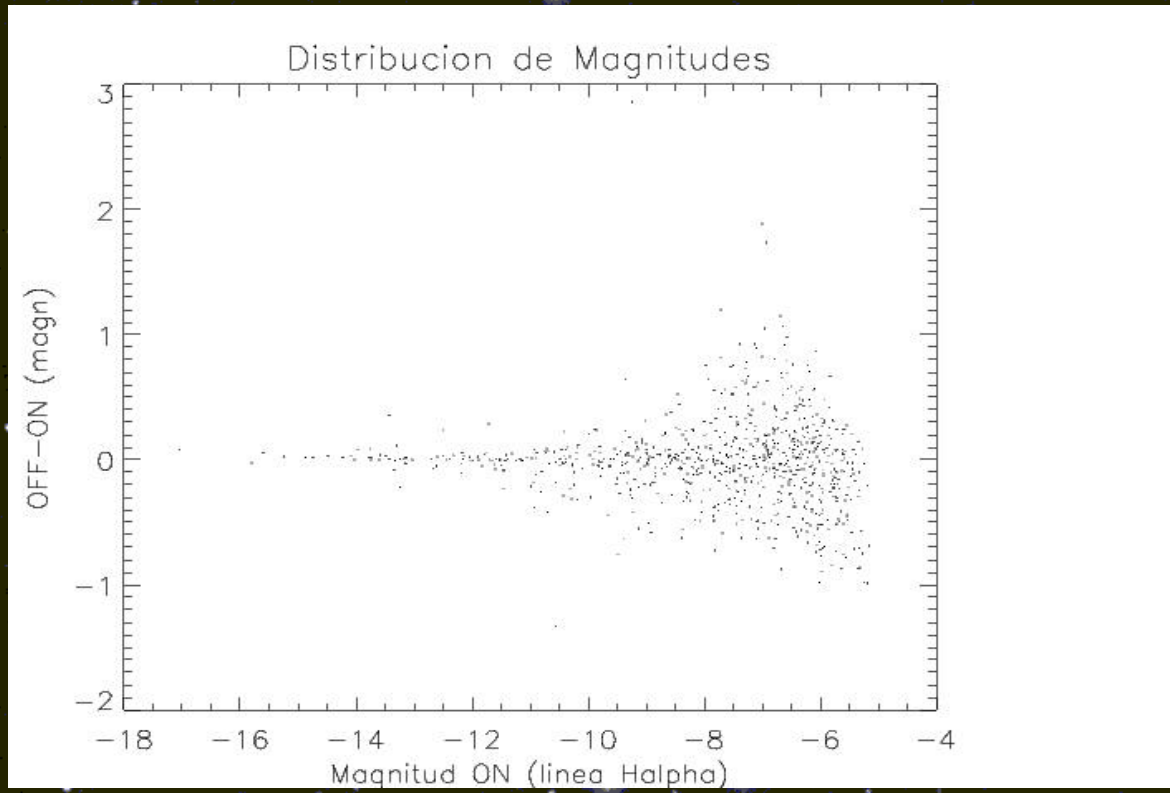
- Abell Radius: 66 arcmin
- BM Clasification: III
- Very low X-Ray Luminosity
- Few known objects

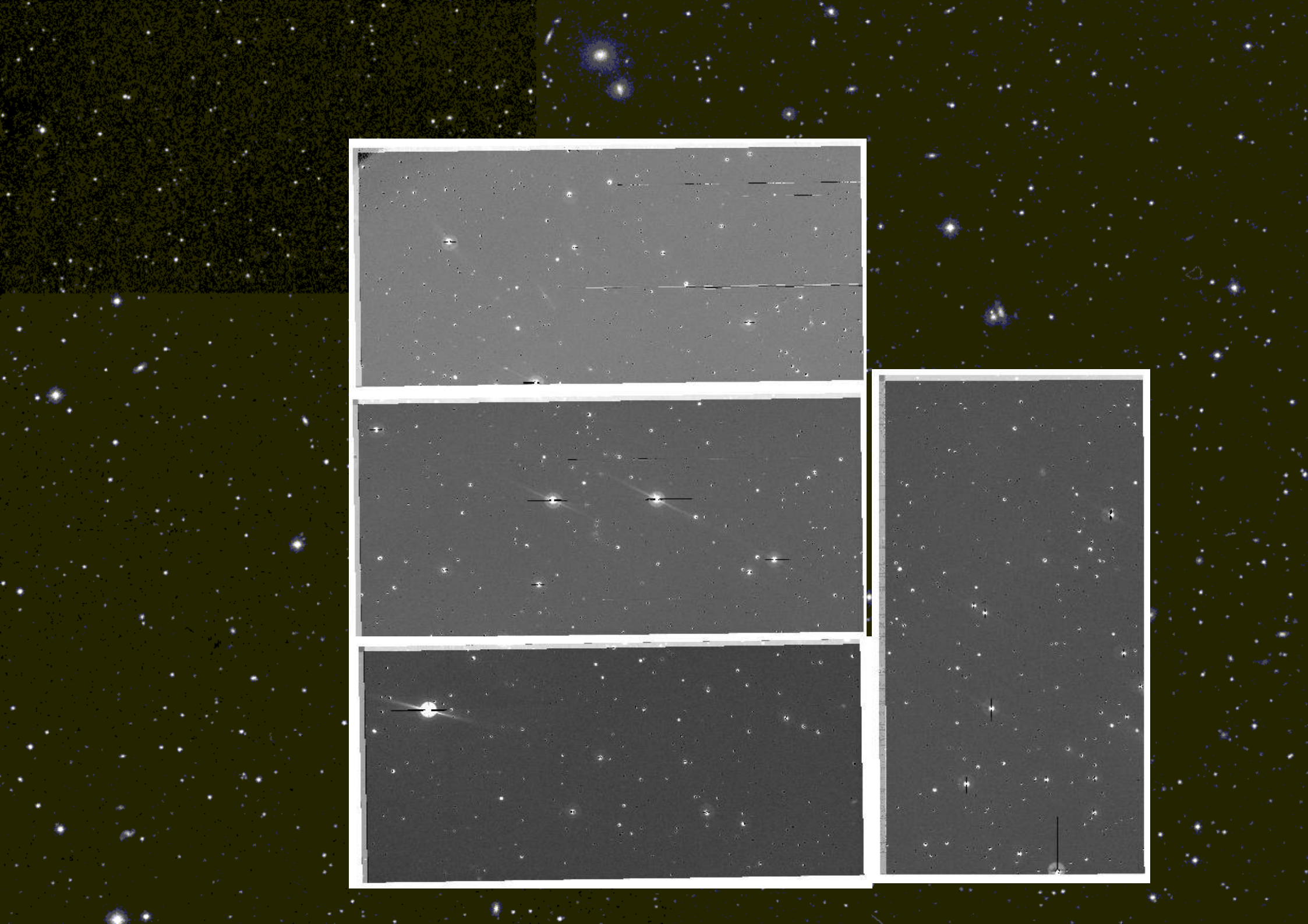


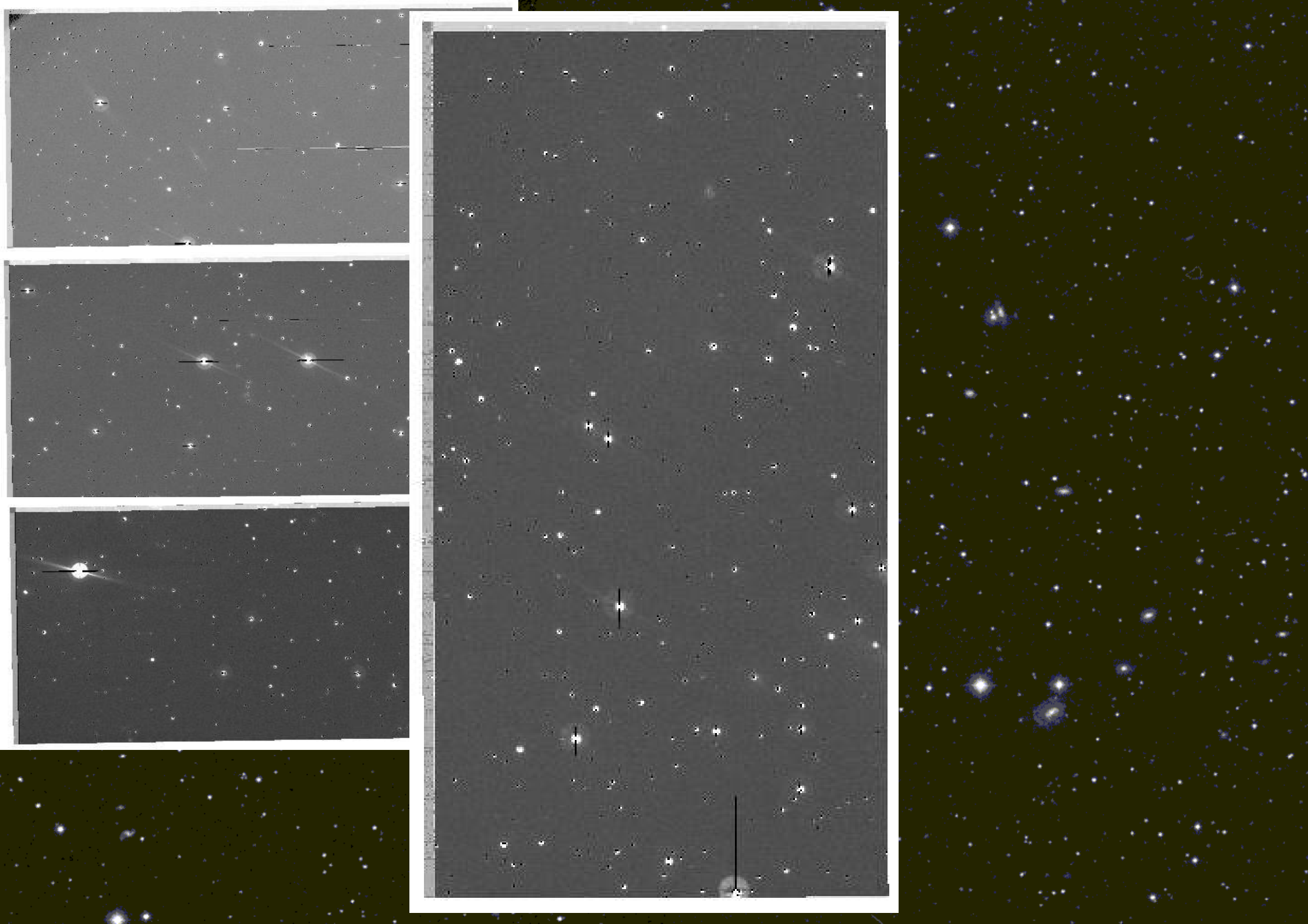
ROSAT X-Ray map overlapped to the DSS-image.

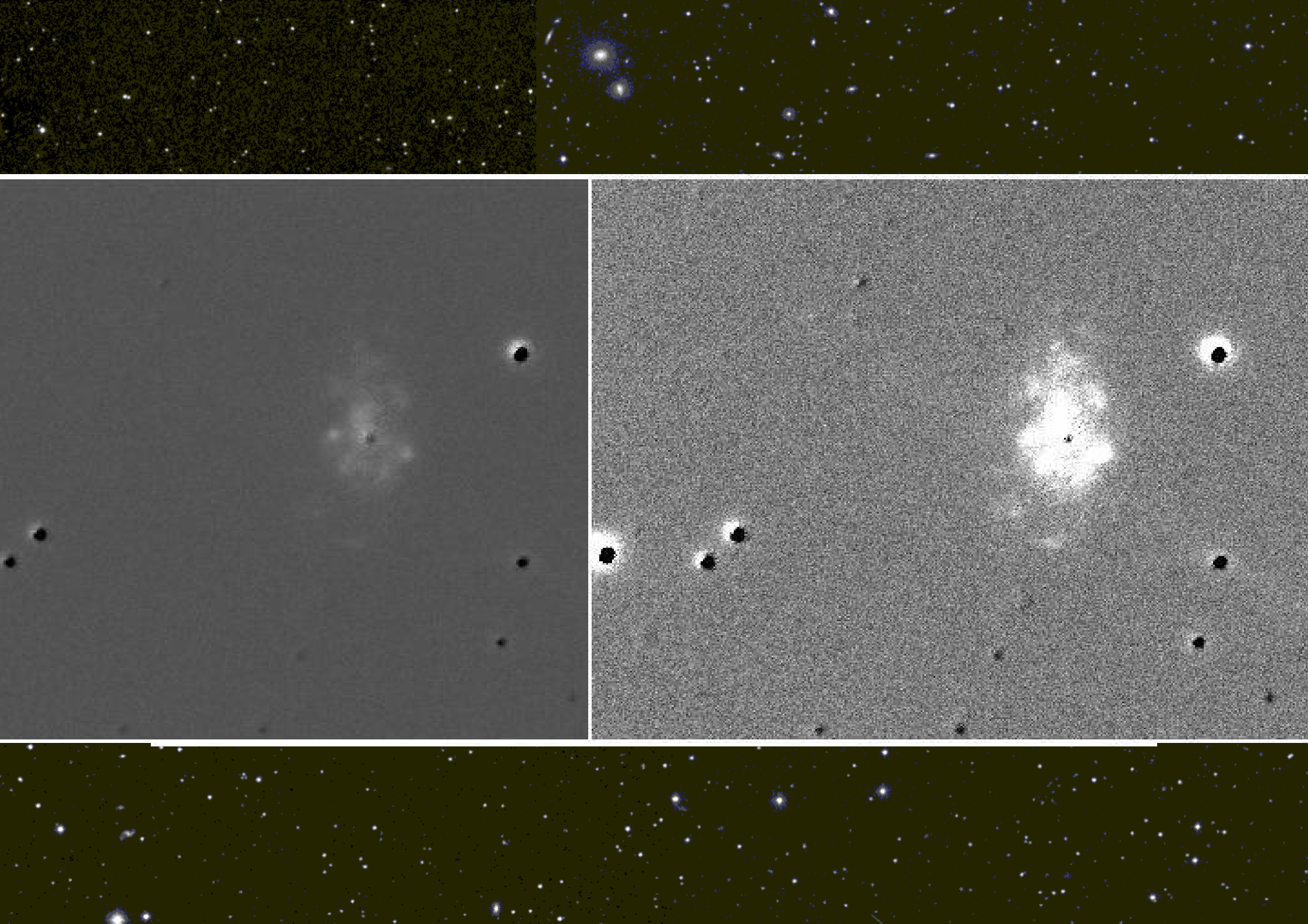
Preliminary Detection









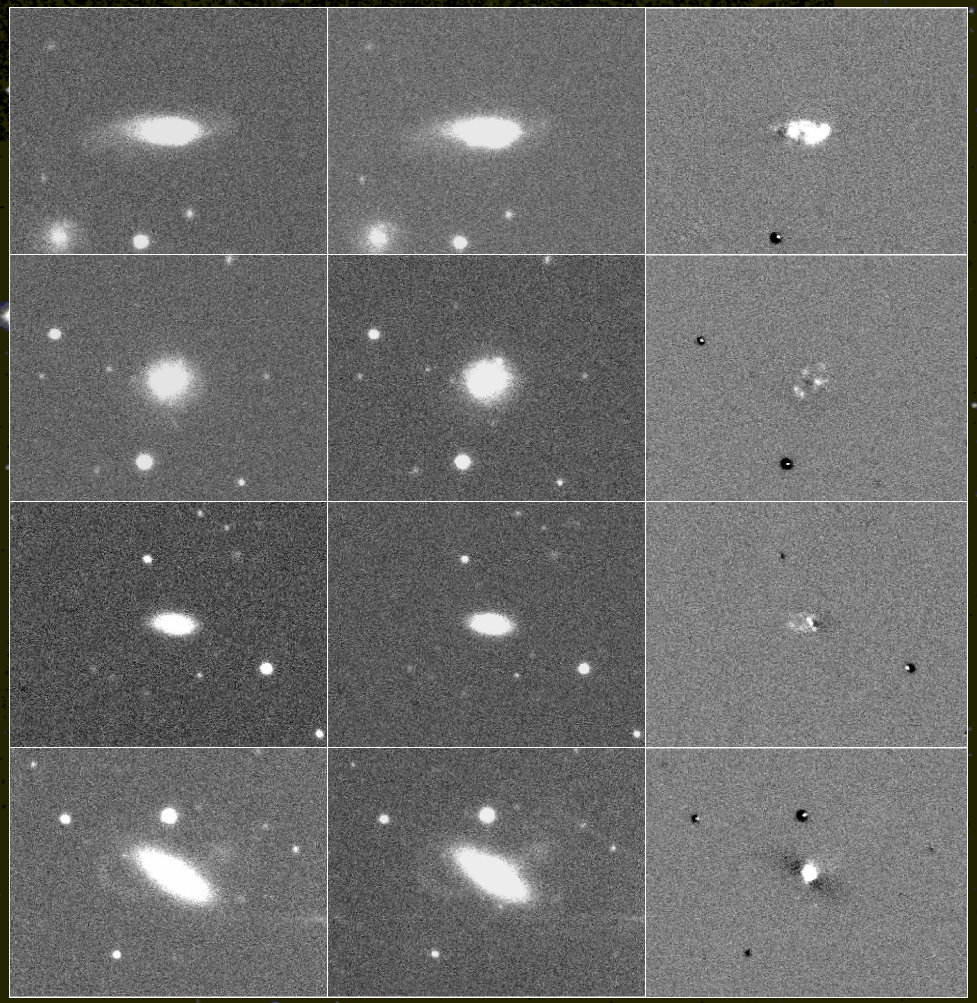


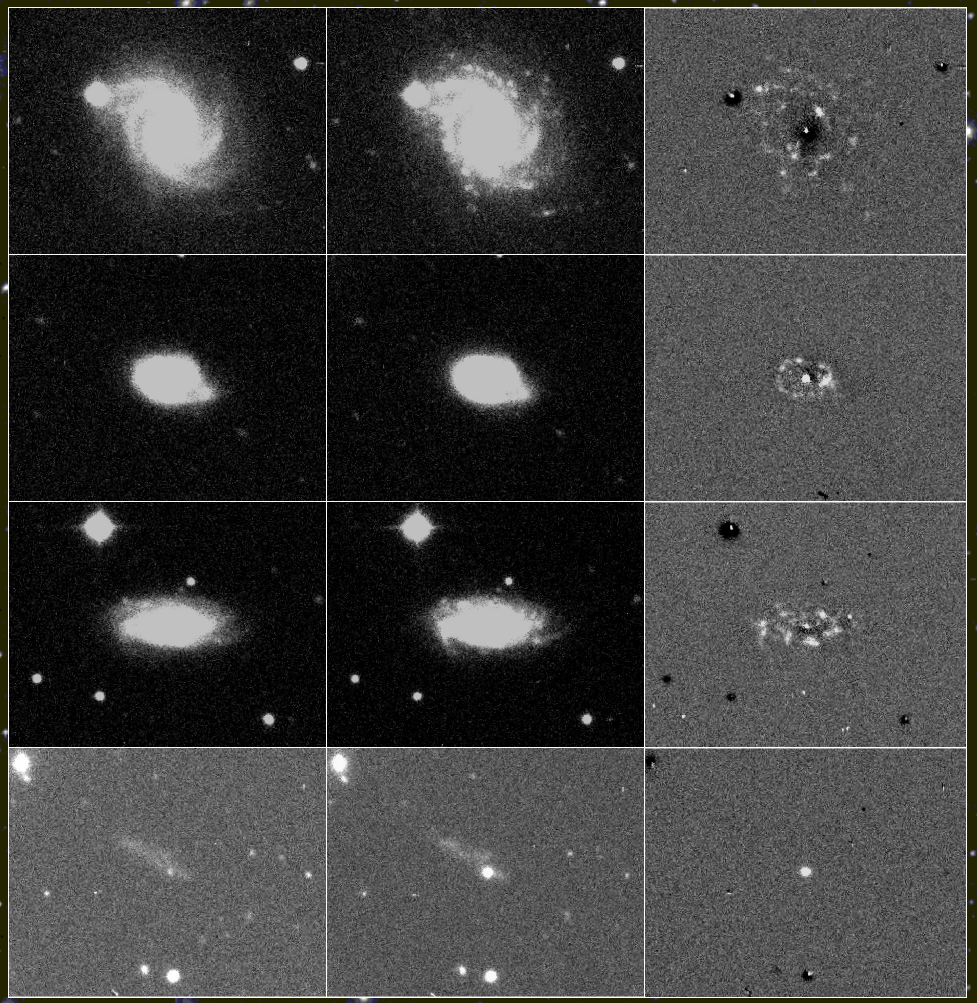


Extended Sources Detected in Abell 634

Nombre		AR			Dec		Vel.	Desplaz
	h	m	s	o	'	"	Km/s	
SBS0807+580B	08	12	08.74	+57	54	28.82	7795	0.02601
SBS0808+581B	08	12	34.75	+57	57	36.79	X	X
SBS0808+581A	08	12	16.80	+57	58	30.65	X	X
SBS0807+581	08	11	53.52	+57	57	07.47	8364	0.02790
SBS0810+581	08	14	38.79	+58	01	23.79	7885	0.02630
SBS0809+582	08	13	47.06	+58	04	49.35	8232	0.02746
CGCG 287-053	08	13	17.89	+58	00	38.57	7821	0.02609
A634-81356+580233	08	13	55.75	+58	02	33.27	x	X

Atlas of Extended Sources





Work in Progress

- Structure of Hα emission. Morphological characteristics.
- Statistics of unresolved emitting objects.
- Photometry and spectroscopy of objects in that z is not known.
- Hα Luminosity Function.
- Spatial Distribution in the cluster of emitting objects.