FIRST WORKSHOP OF THE COORDINATED PROJECT
"ESTALLIDOS DE FORMACIÓN ESTELAR EN GALAXIAS"
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On a deep search for emission line galaxies in nearby clusters: Abell 634

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Motivations

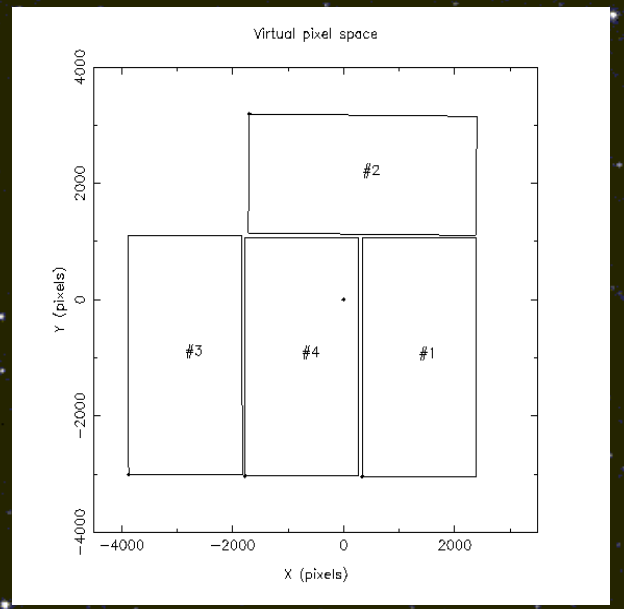
- Environmental effects on SF

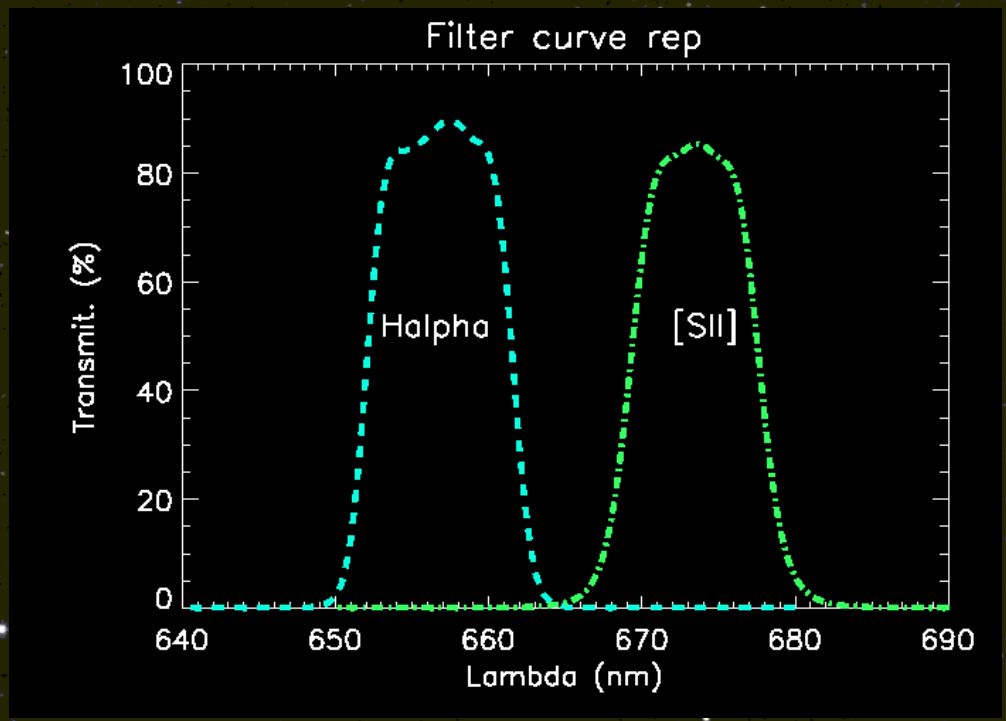
  e.g. Kennicut (83), Moss &Whittle (93),..
- Similar redshift to studied Coma and A1367

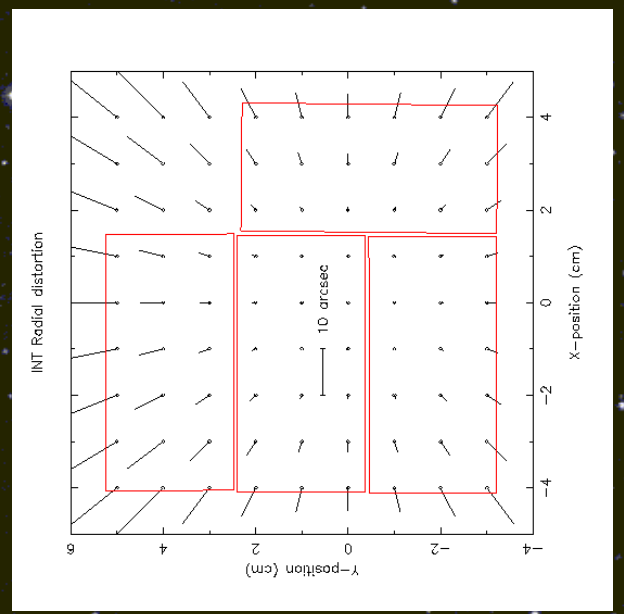
  to be considered nearby ($v_0 \approx 7000$ km/s)
- Comparison between a rich cluster (i.e. Coma, A1367) (Iglesias-Páramo et al. 02) and a poor cluster (A634).

Observations

- WFC attached to the 2.5 m INT.
- Mosaic 4 chips (34'x34' aprox.FOV).
- Radial distorsion. (A trouble for the astrometry).
- Filter Hα (detecting redshifted continuum).
- Filter [SII] (d. redsh. Hα+[NII] lines).

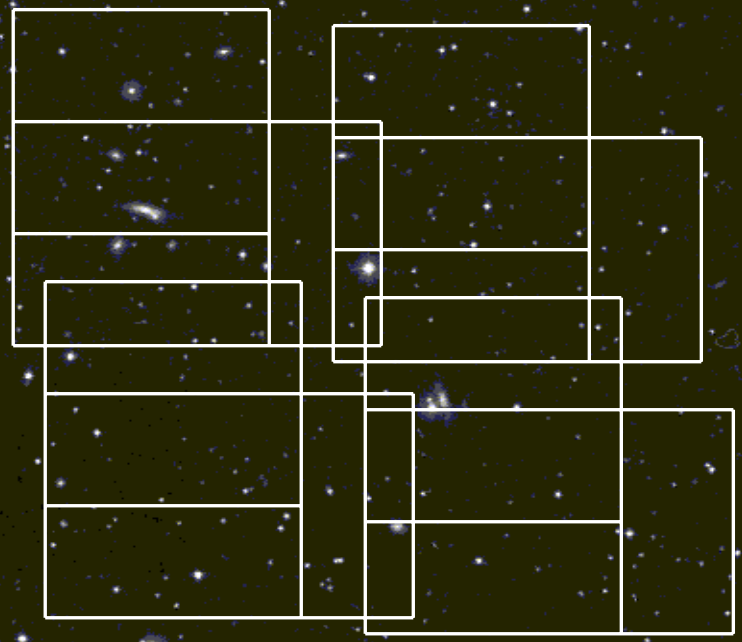






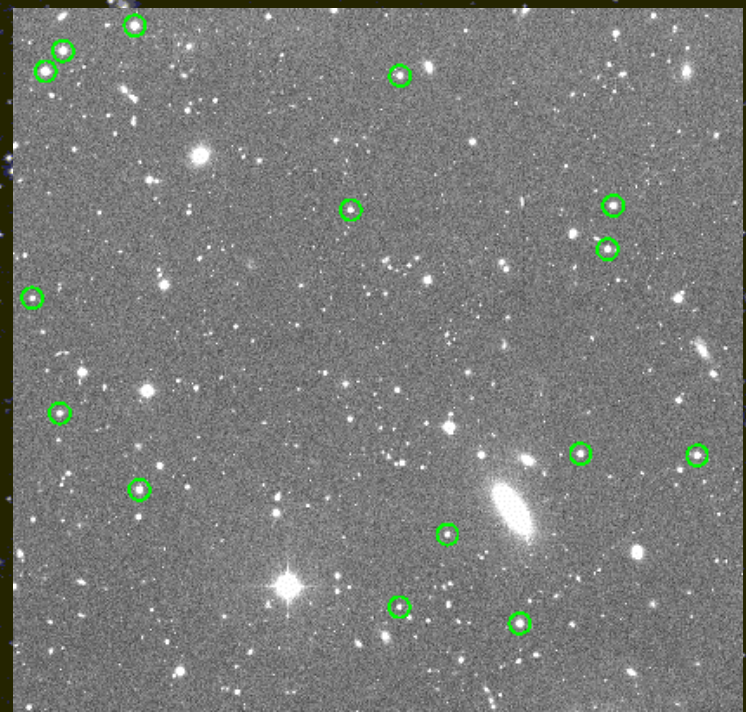
Images

- Four fields mapping a $(1^{o})^{2}$ $+(0.5^{o})^{2}$ outer region/field
- Overlaping.
- 1200 s integration time per field.
- A634 has been selected from our sample of 7 clusters.



Preliminary data analysis

- Scaling images ON (registering Hα) and OFF (regis. Contin.)-, and derive the Astrometry with a minimum of 30 fields stars per chip.



The Target: Abell 634

- $(\alpha,\delta)=8^h14^m33.7^s \quad +58^o02'52''$
  Equinox J2000
- Redshift **z**=0.0265

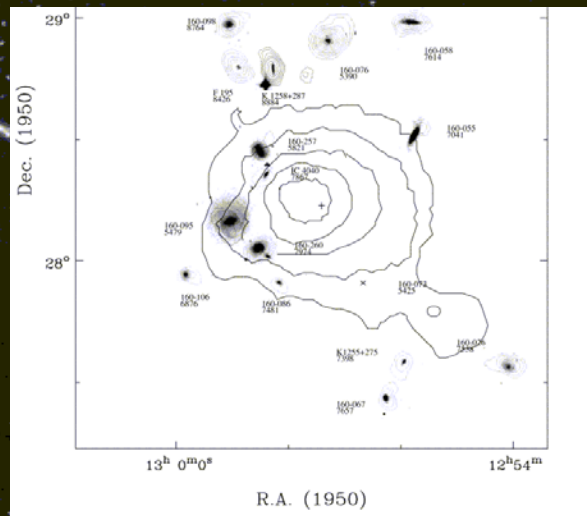
(1)

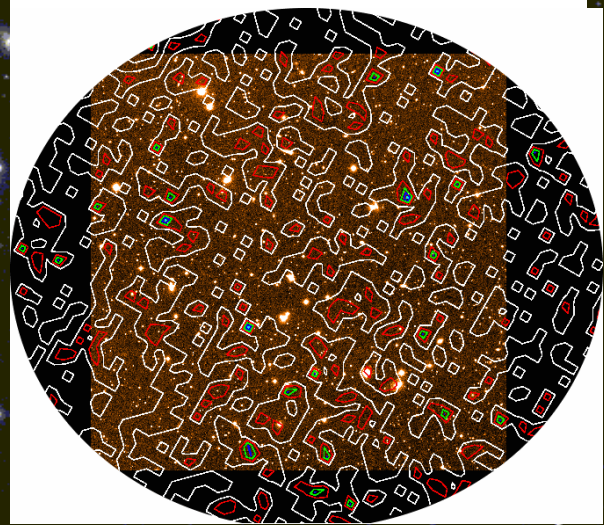
- Few tens galaxies with known z
- Moderately Compact (Zwicky et al. 68)
- Type III
- Poor (Richness=0)

(Bautz & Morgan 70)

- No clear single X-Ray source (ROSAT)

ROSAT contouring over DSS COMA





ROSAT contouring over DSS A634

(1) Data Source: NED.

Work in progress

- Close inspection of the fields observed and source extraction: cross-identification with all existing catalogs.
- Structure of the Hα flux in each emitting galaxy.
- Photometry.
- Morphological classification.
- Hα Luminosity Function (Parameters of Schechter fit).
- Spatial distribution of Hα emission galaxies across the cluster.