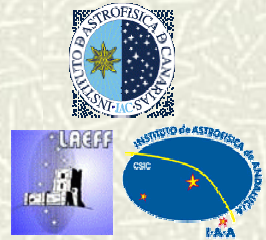
Estallidos III

Tenerife, December 2-3, 2004



Are non X-ray emitting clusters real clusters of galaxies?

IAC: **Rubén Sánchez-Janssen**
J. Alfonso L. Aguerri,
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IAA: Jorge Iglesias-Páramo
Jose M. Vílchez

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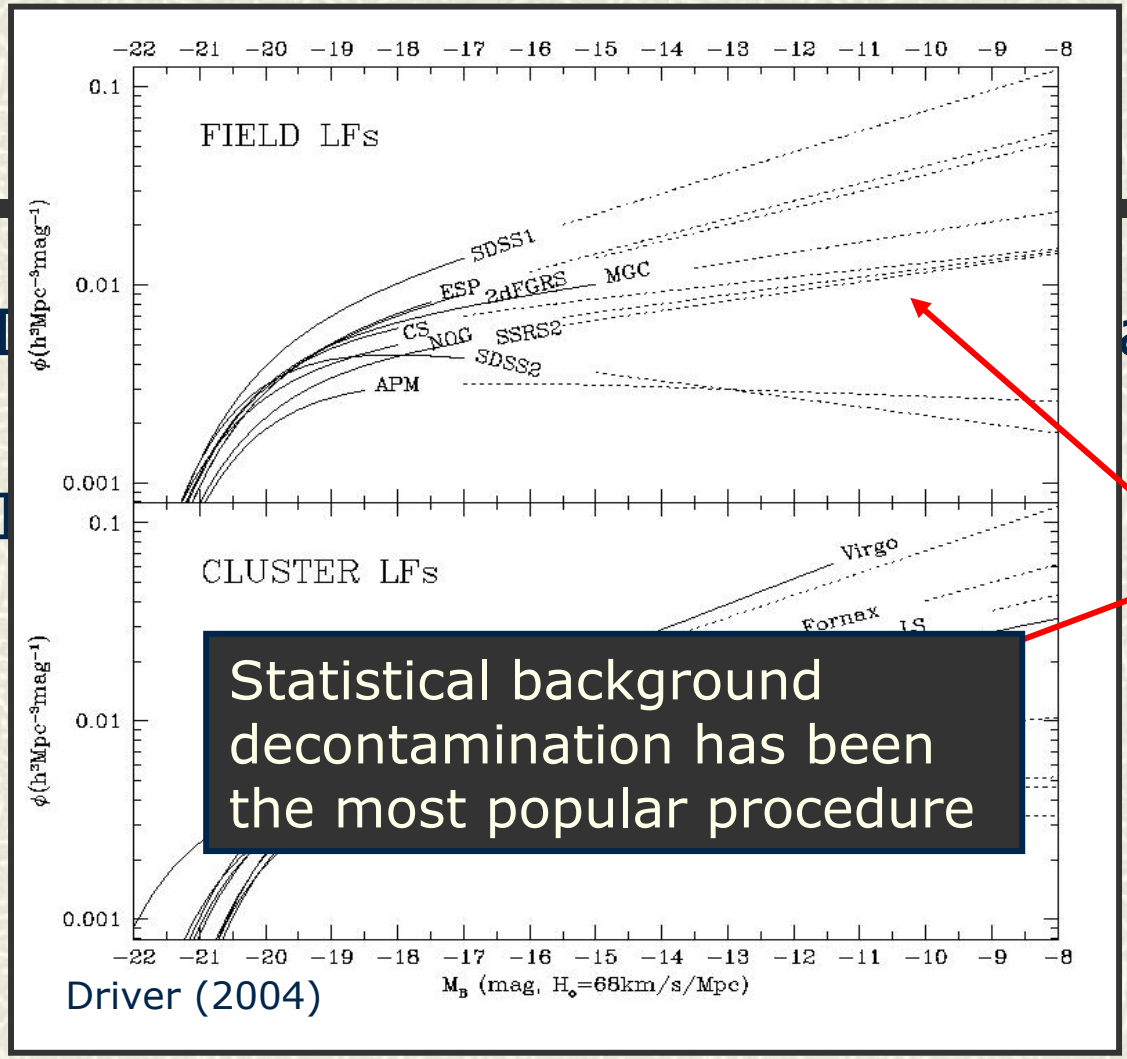


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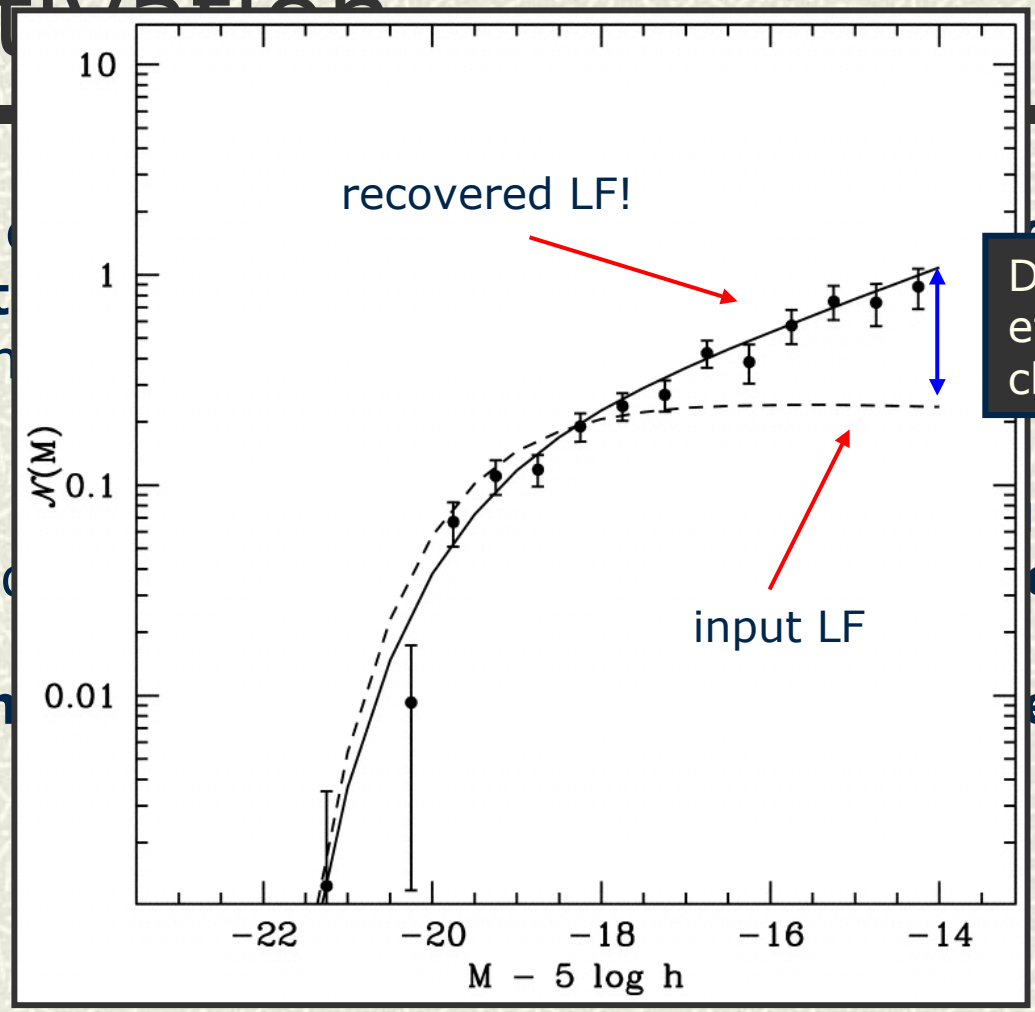
Statistical background decontamination has been the most popular procedure

Broadly consistent!!

But: different techniques, different magnitude ranges...

Mot

- Valotto
  project
  LFs by n
- Using a
  they find
  Abell's)
  contam



Due to projection effects & non-real clusters!

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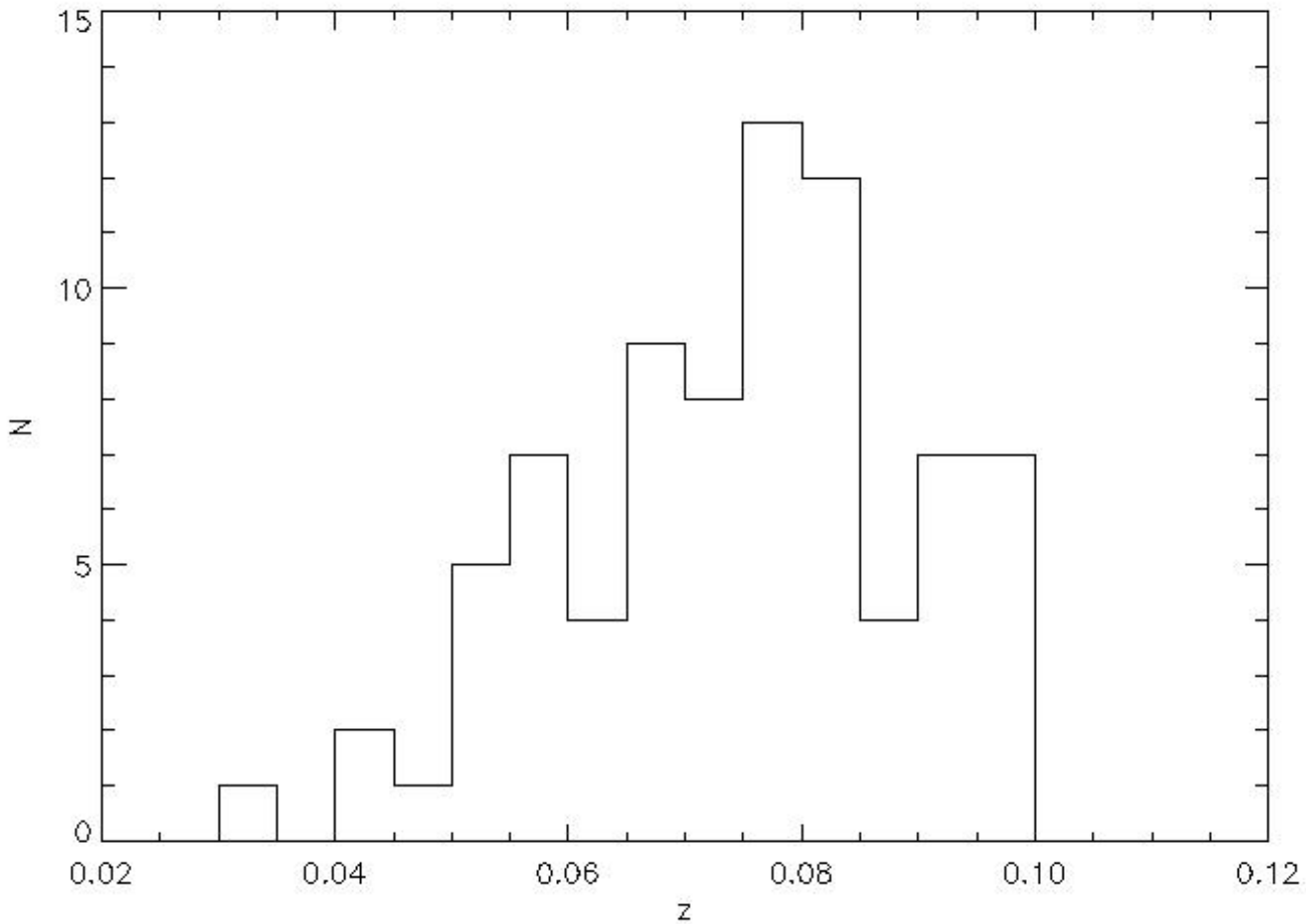
Motivation

- Recently, Valotto et al. (2004) analyzed the **LFs** of samples of nearby clusters of galaxies taken from the **Abell catalog** and the **X-ray Sample of Bright Cl**

Our aim: to investigate this hypothesis making use of the avalaible **SDSS DR3** data

- Th **X-ray** flu bell clusters with **no X-ray** counterpart exhibit **steep faint ends** (α **~ -1.6**).

Clusters **without X-ray** emission are strongly affected by **projection effects**!!



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Final sample: **80 clusters** with at least 40 galaxies with redshifts

Not a complete sample!

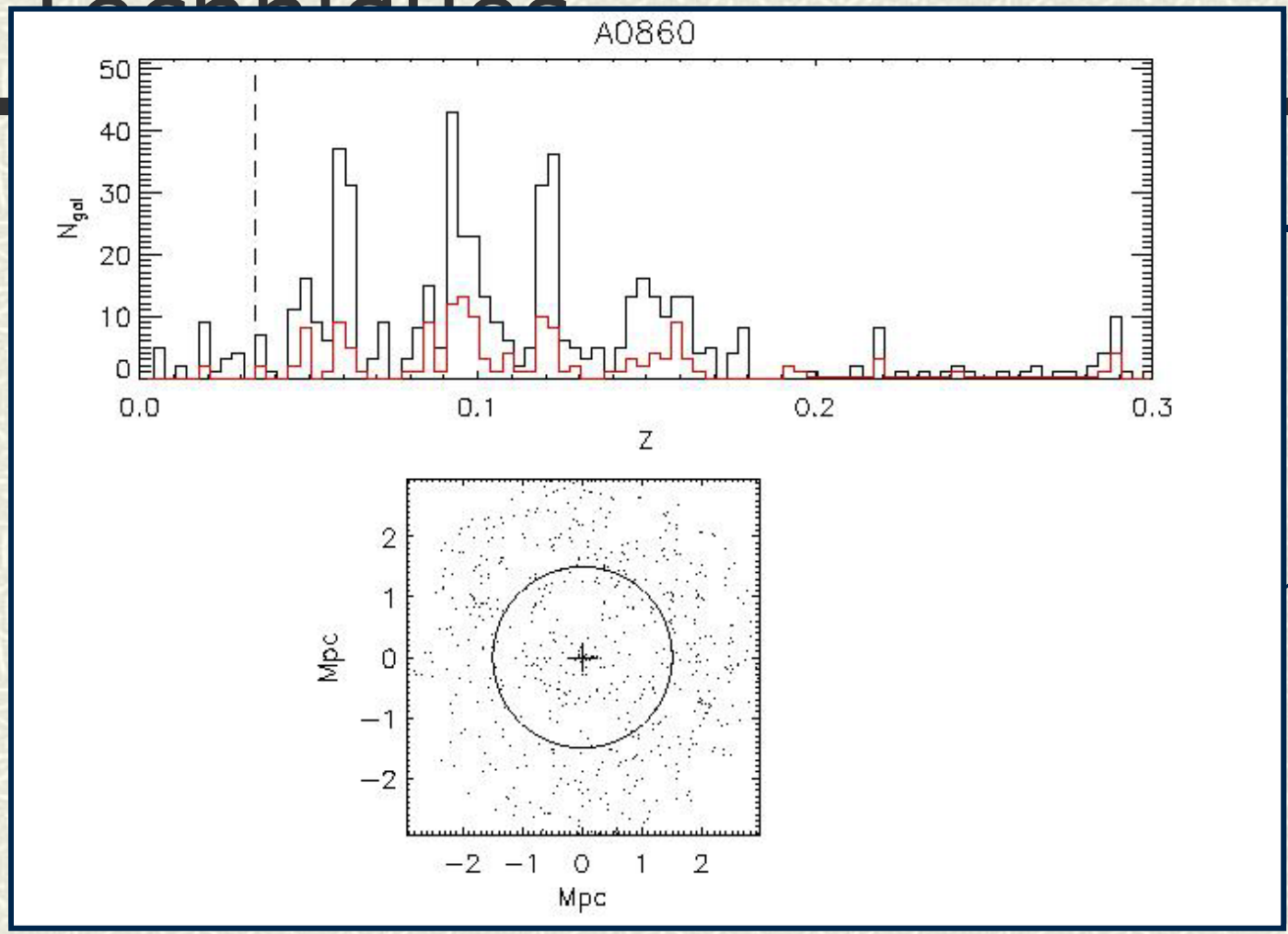
Data Analysis

- We plan to follow **two different approaches** in order to study background contamination and projection effects:

1. Computation of the **richness class** (N_{gals} with $m < m_3+2$ within $1.5h^{-1}$ Mpc, or $1R_A$) of each cluster.
2. Comparison between the **background distribution** for the non-X sample, for X-ray clusters and the field LF.

(3. Analysis of **substructure** and **velocity dispersion** distribution (*ROSTAT*, Beers et al. 1990).)

Techniques



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...let’s see what happens!!