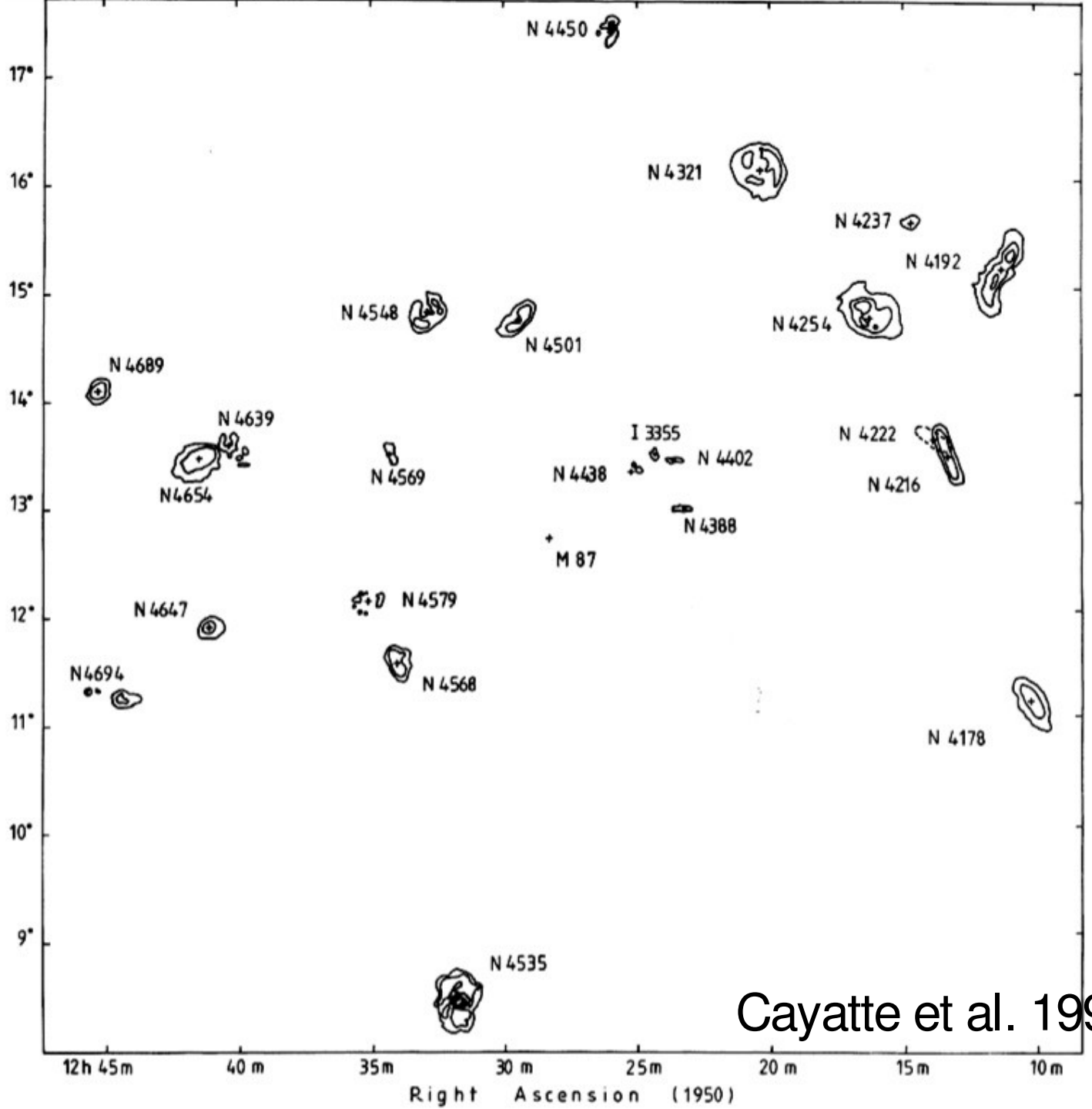
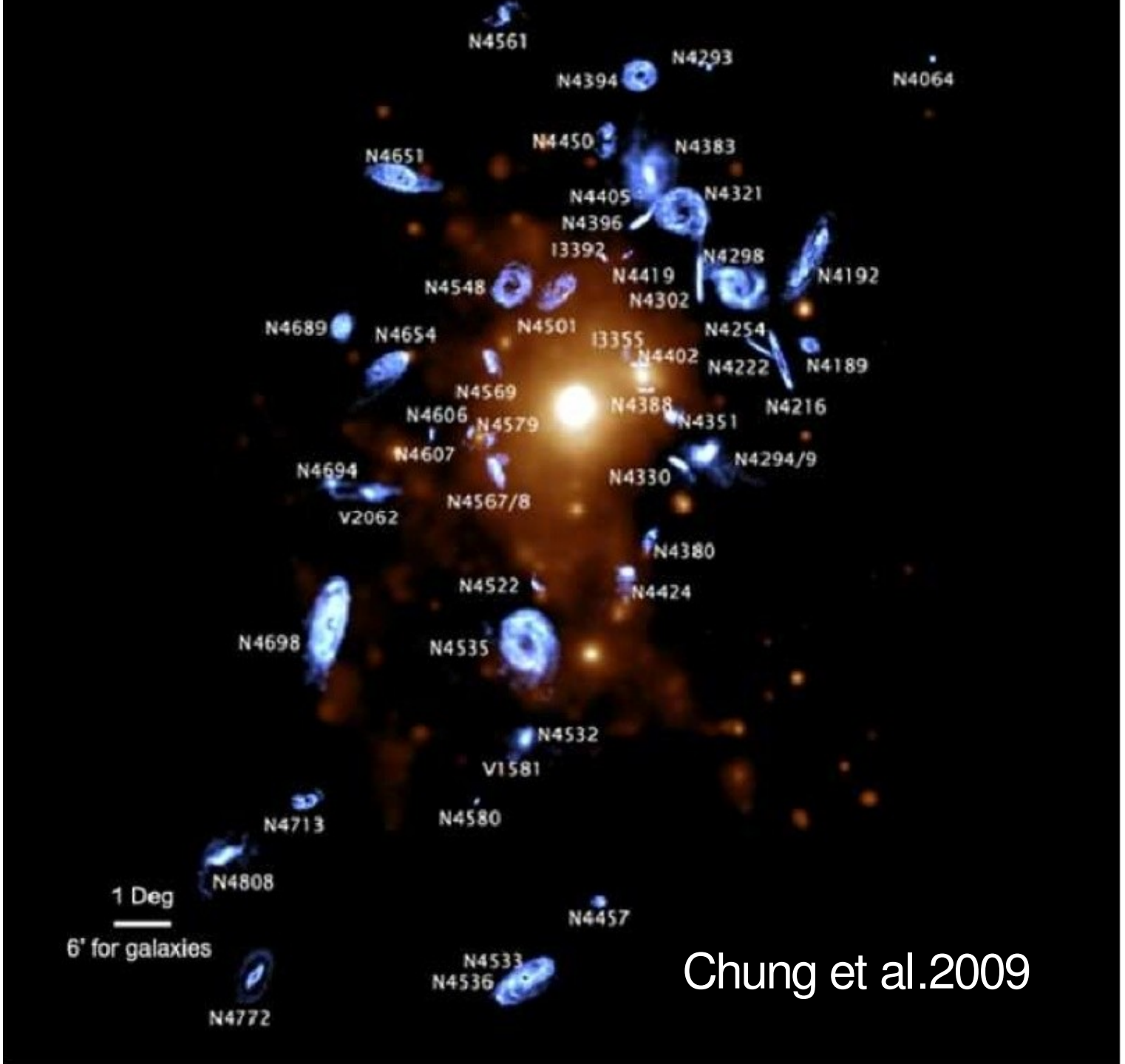
Deep HI Survey of the Virgo Cluster

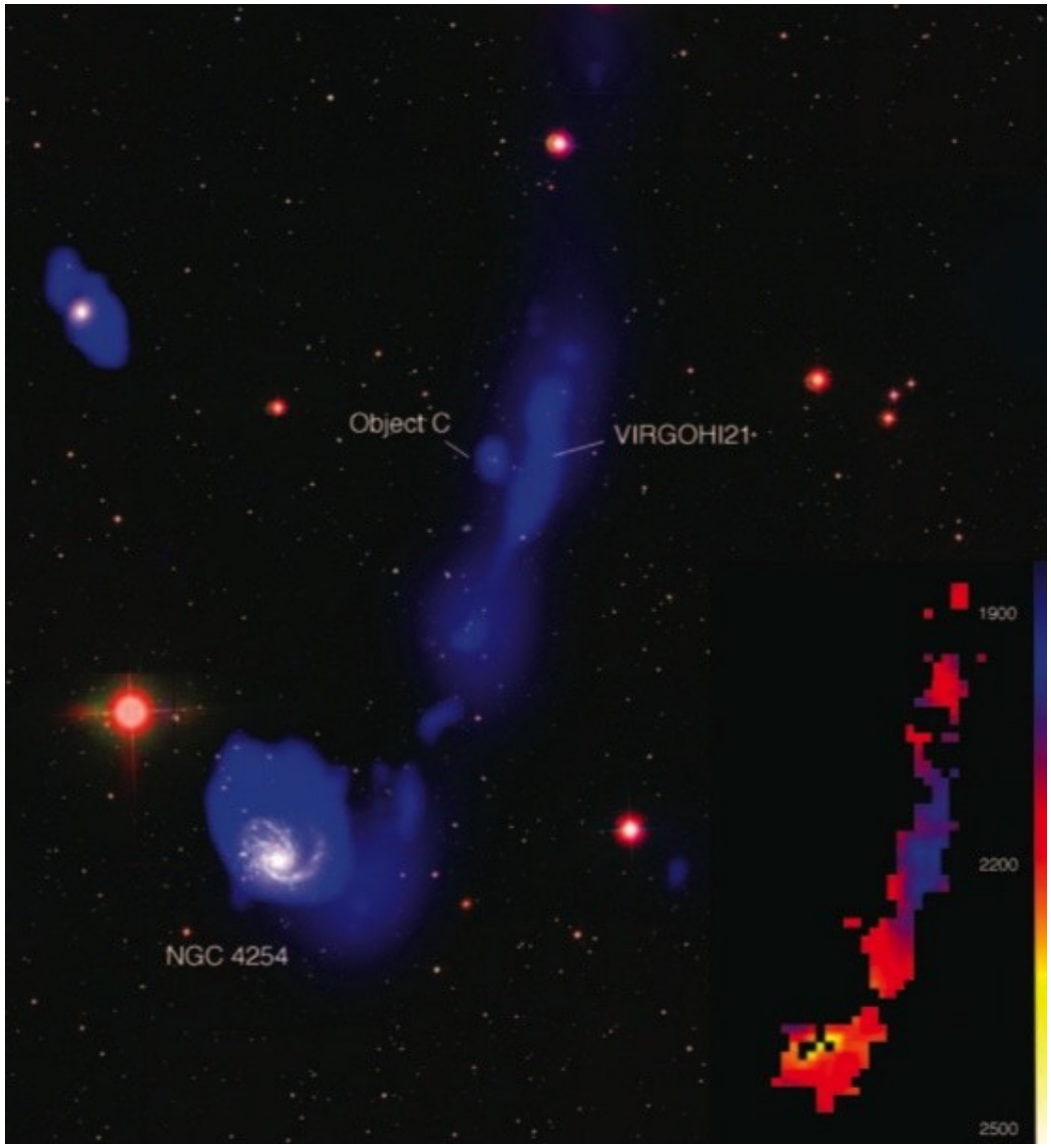
C. Balkowski et al.



Cayatte et al. 1990



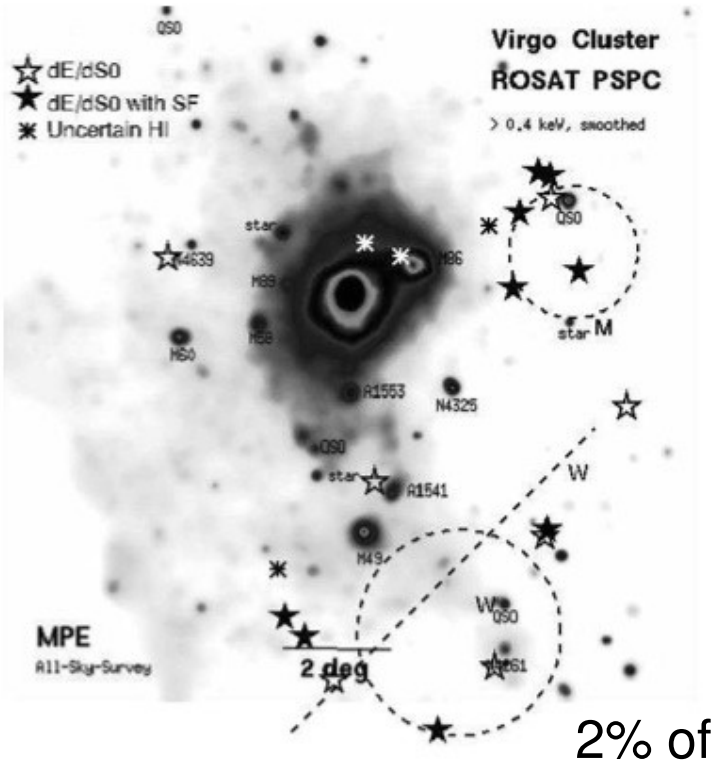
Chung et al.2009

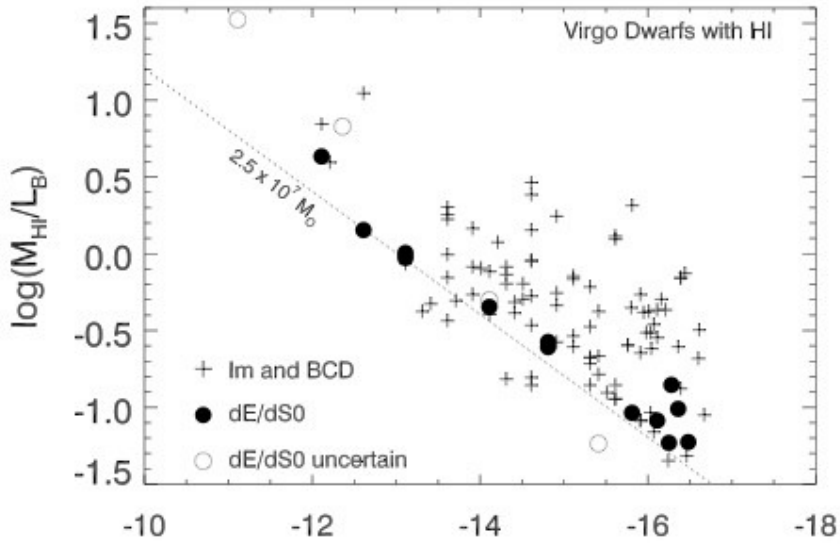


Duc et Bournaud 2008

Duc et al. 2007

ALFALFA
Early type dwarf





2% of the early dwarf population is detected

Figure 1. (a) Locations of dE/dS0 galaxies detected by ALFALFA in the declination range 4-16 degrees, superposed on a ROSAT map of the Virgo Cluster (Boehringer *et al.* 1994). The approximate locations of the M, W', and W clouds (Binggeli, Popescu, & Tammann 1993) are indicated. Solid symbols denote dE/dS0 with Hα emission. (b) Log M_{HI}/L_B vs M_B for detected dwarfs. The dotted line shows the completeness limit for a galaxy with an HI mass of $2.5 \times 10^7\ M_\odot$ at the Virgo distance. In both figures, four dE/dS0 with uncertain HI detections are separately indicated.

Koopmann et al. 2009

Projets de surveys HI

- **Amas de la Vierge**

100 sq. deg, lim M_{HI} 5.10^6

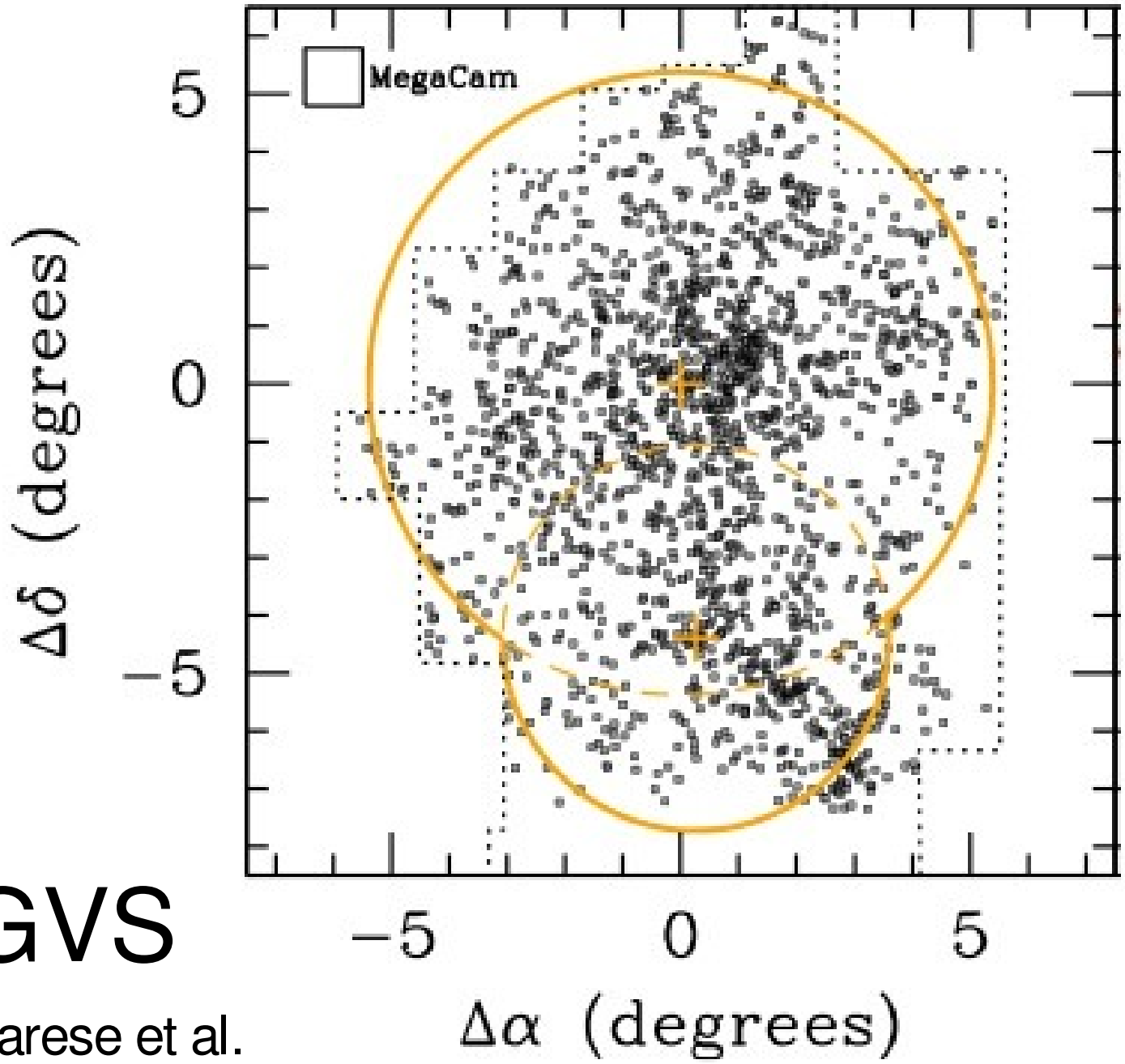
en 100 jours (MeerKAT)

- **Amas à différents z**

Z limite actuel en HI de l'ordre de 0.03, quelques amas à 0.3

Projets d'accompagnement

- Photométrie: NGVS
- Cinématique: 3DNTT

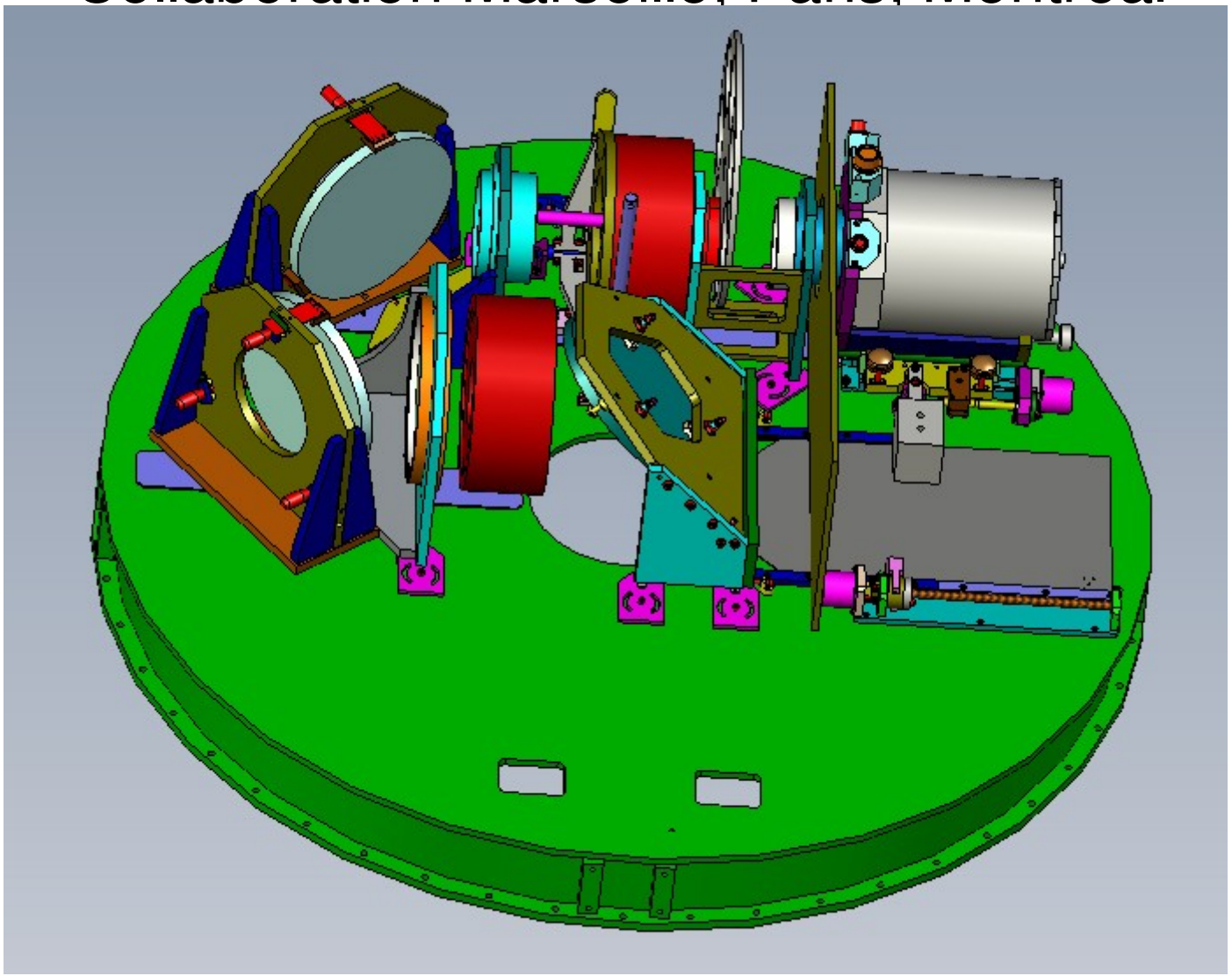


NGVS

Ferarese et al.

Design du 3D-NTT

Collaboration Marseille, Paris, Montréal



Instrument visiteur au NTT, fin 2010, PI Marcelin

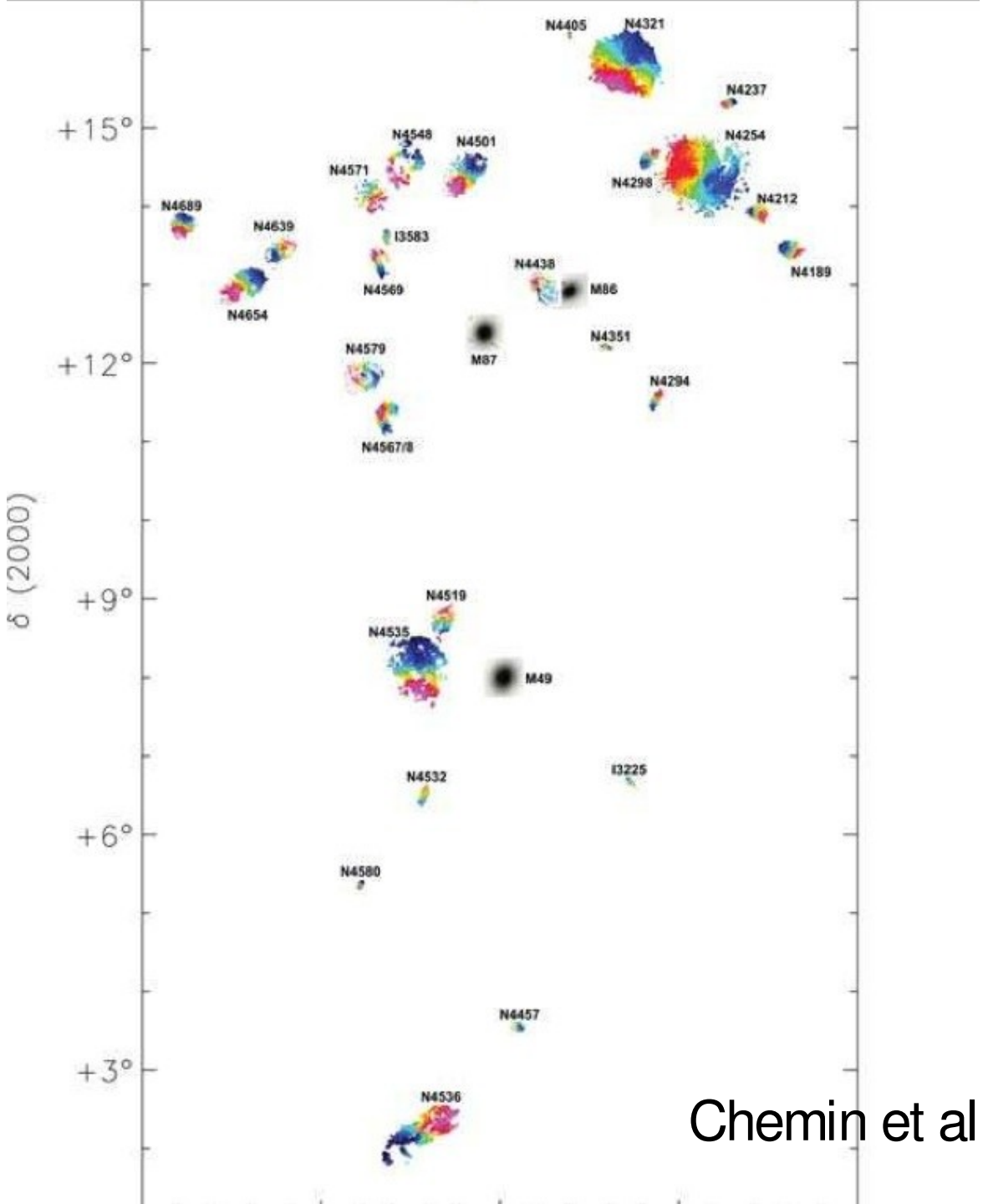
The two modes of the 3D-NTT

TUNABLE FILTER MODE (R ~ 500 à 1000) monochromatic images

- **Field of view** **~ 17' x 17'**
- **Wavelength range** 350nm to 850nm
- **Spectral resolution :** **tunable from 500 to 10 000 (@Hα)**
- **Detector** CCD (4096 x 4096 with 12 µm pixels) **scale: ~ 0.25"/pixel**

HIGH RESOLUTION MODE (R ~ 10 000 à 20 000) Velocity fields

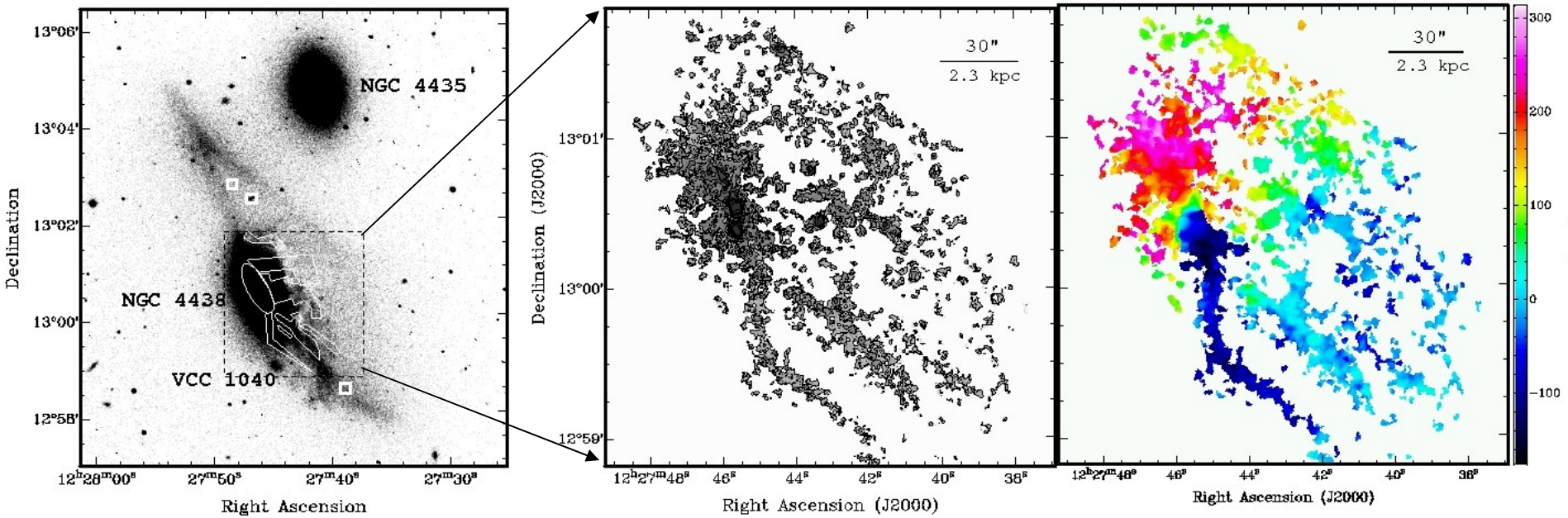
- **Field of view** **~ 8.5' x 8.5'**
- **Wavelength range** 350nm to 850nm
- **Spectral resolution** : **from 10 000 to 40 000 (@ Hα)**
- **Detector :** L3CCD (1600 x 1600 with 16µm pixels) **scale: ~ 0.33"/pix**



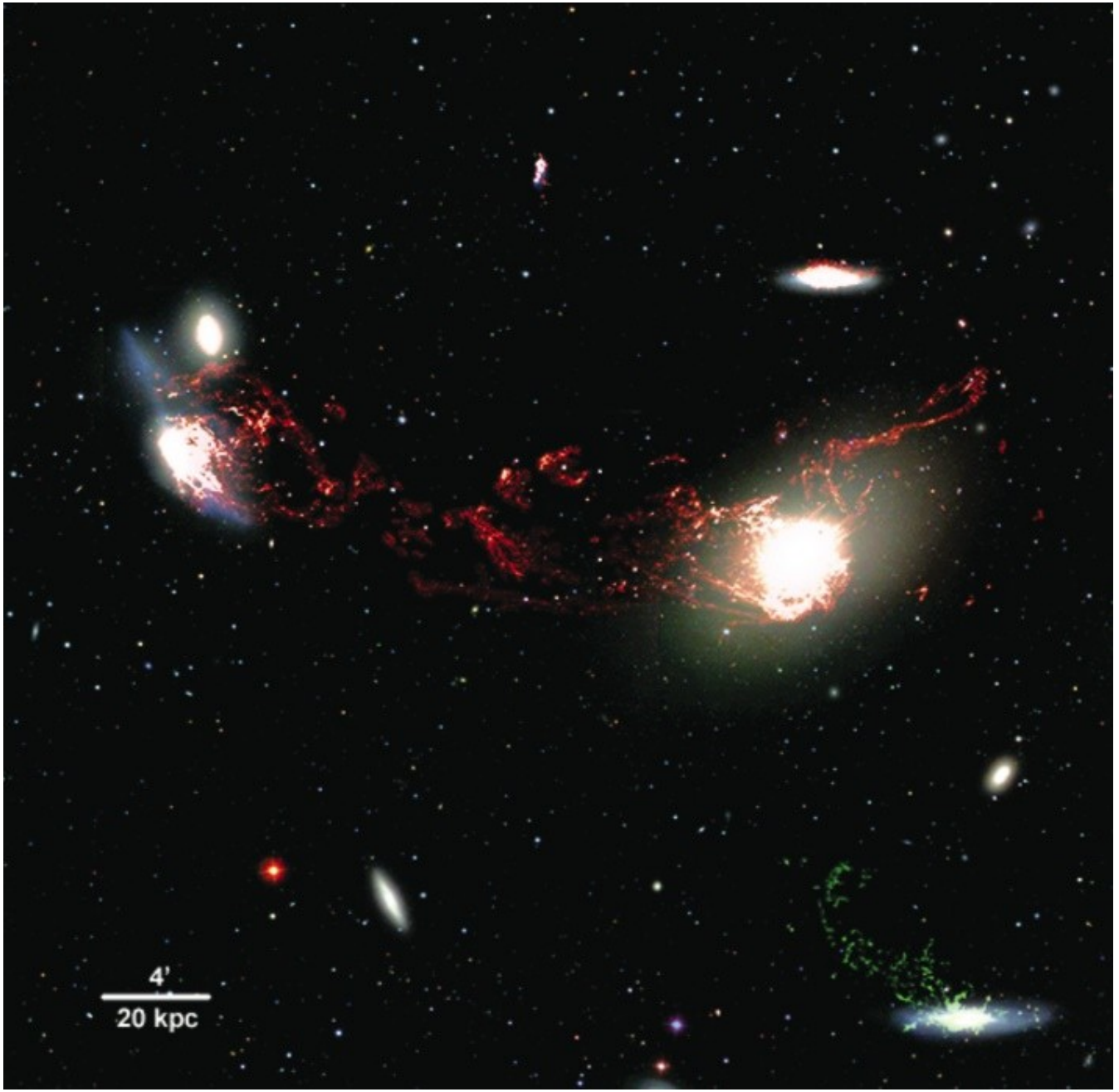
Chemin et al. 2006

High Resolution mode: Virgo Cluster

NGC 4438 = Prototype of a galaxy interacting with ram pressure stripping and companion



Chemin et al. 2005

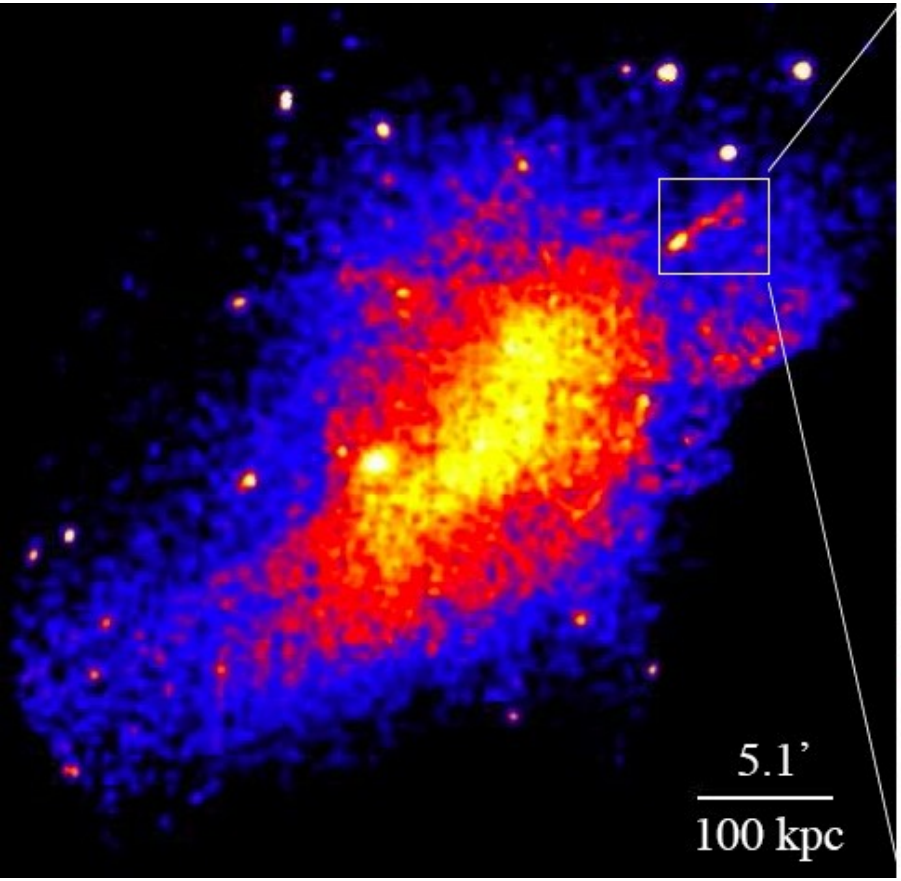


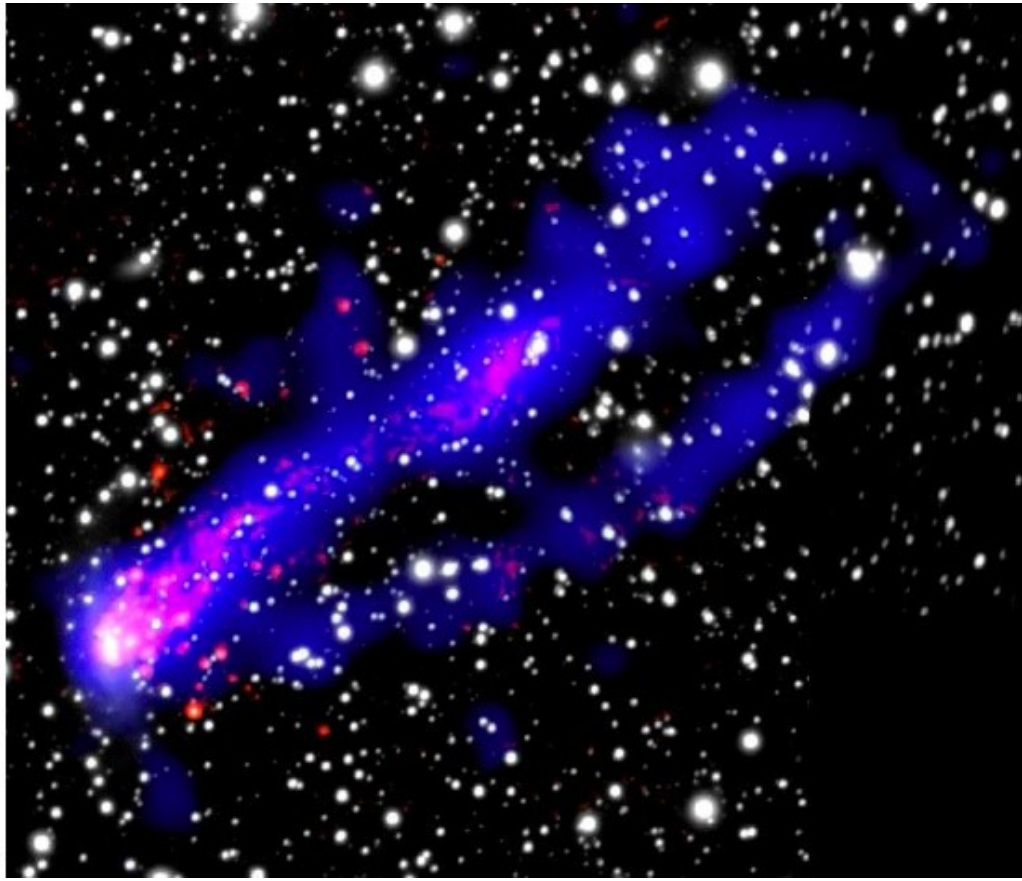
Kenney et al. 2008

Amas A3627

Emission X

Formation stellaire dans le milieu intra amas





Sun et al. 2009