Netherlands Institute for Radio Astronomy

Low column-density HI at z~0

Paolo Serra

ASTRON is part of the Netherlands Organisation for Scientific Research (NWO)

Distribution of HI around galaxies

stars

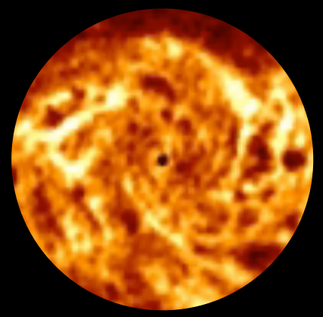
HI

Boomsma+ 08

Distribution of HI around galaxies

stars

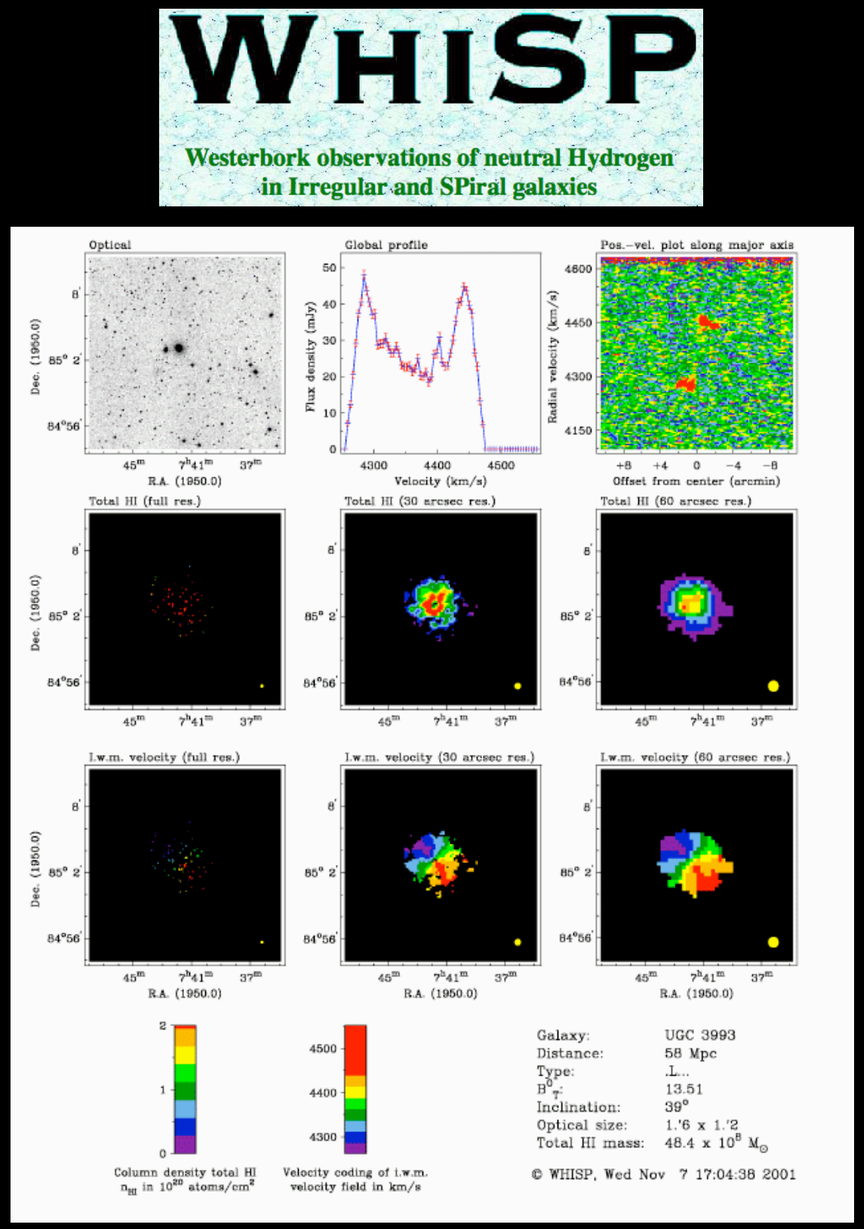
HI



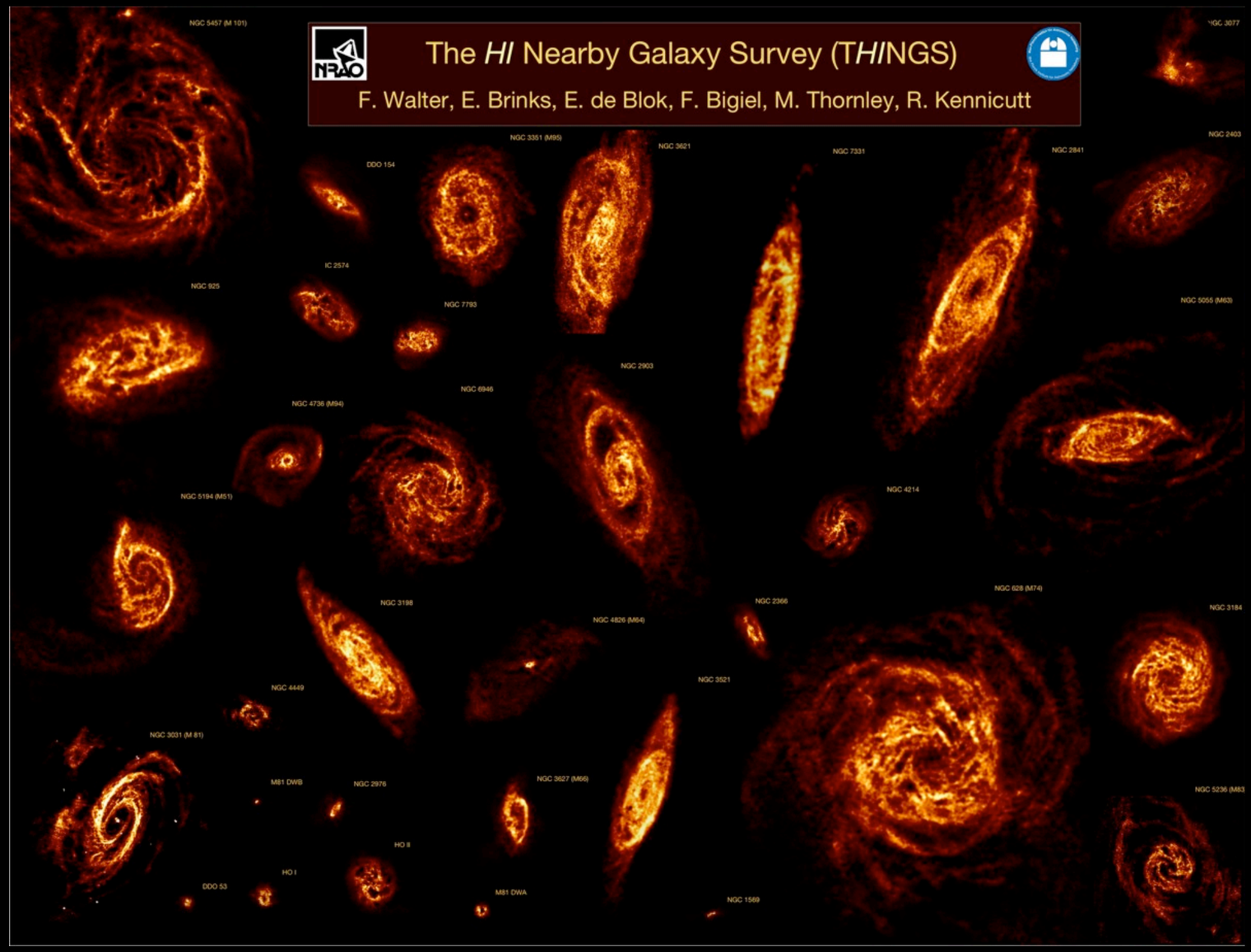
Boomsma+ 08

N(HI)>10^{20} cm^{-2}

HI surveys at z~0: N(HI)>10^{20} cm^{-2}



van der Hulst 02



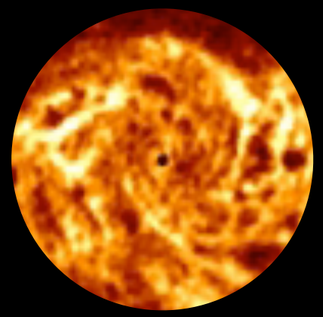
Walter +08

Distribution of HI around galaxies

stars

Boomsma+ 08

HI



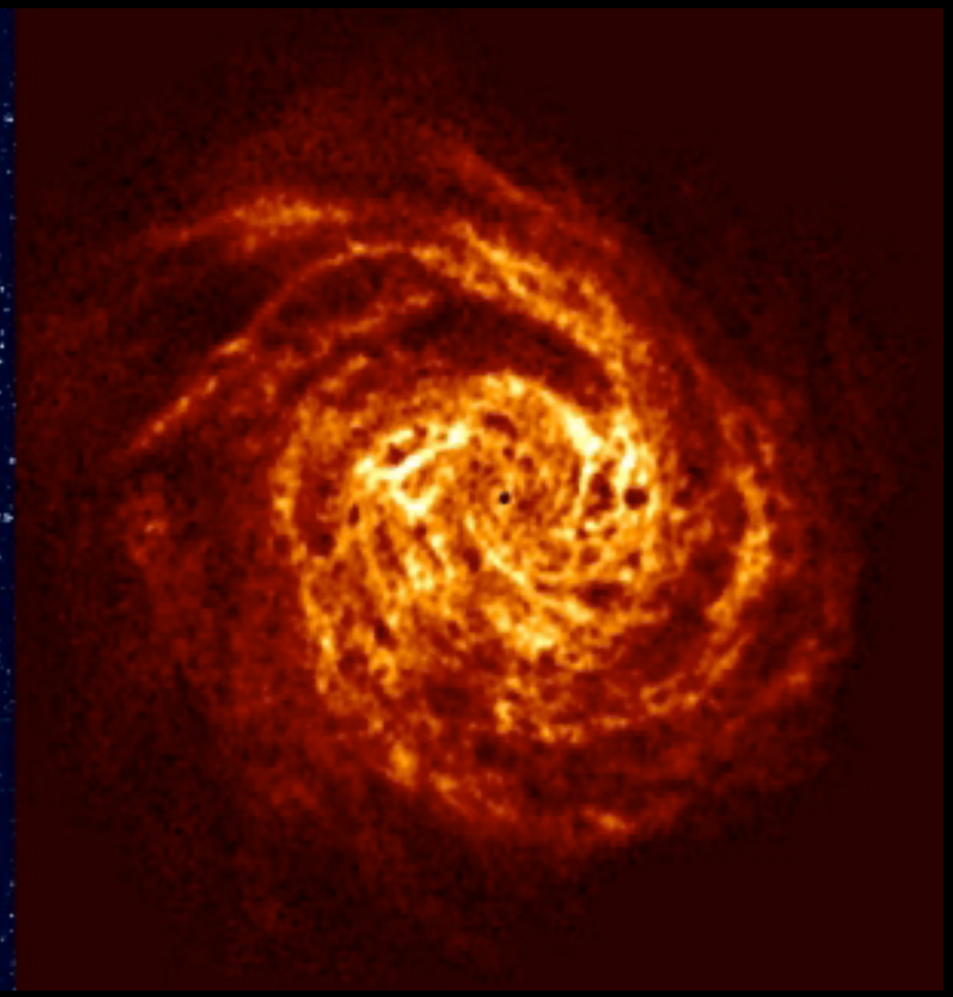
N(HI)>10^{20} cm^{-2}

Distribution of HI around galaxies

stars

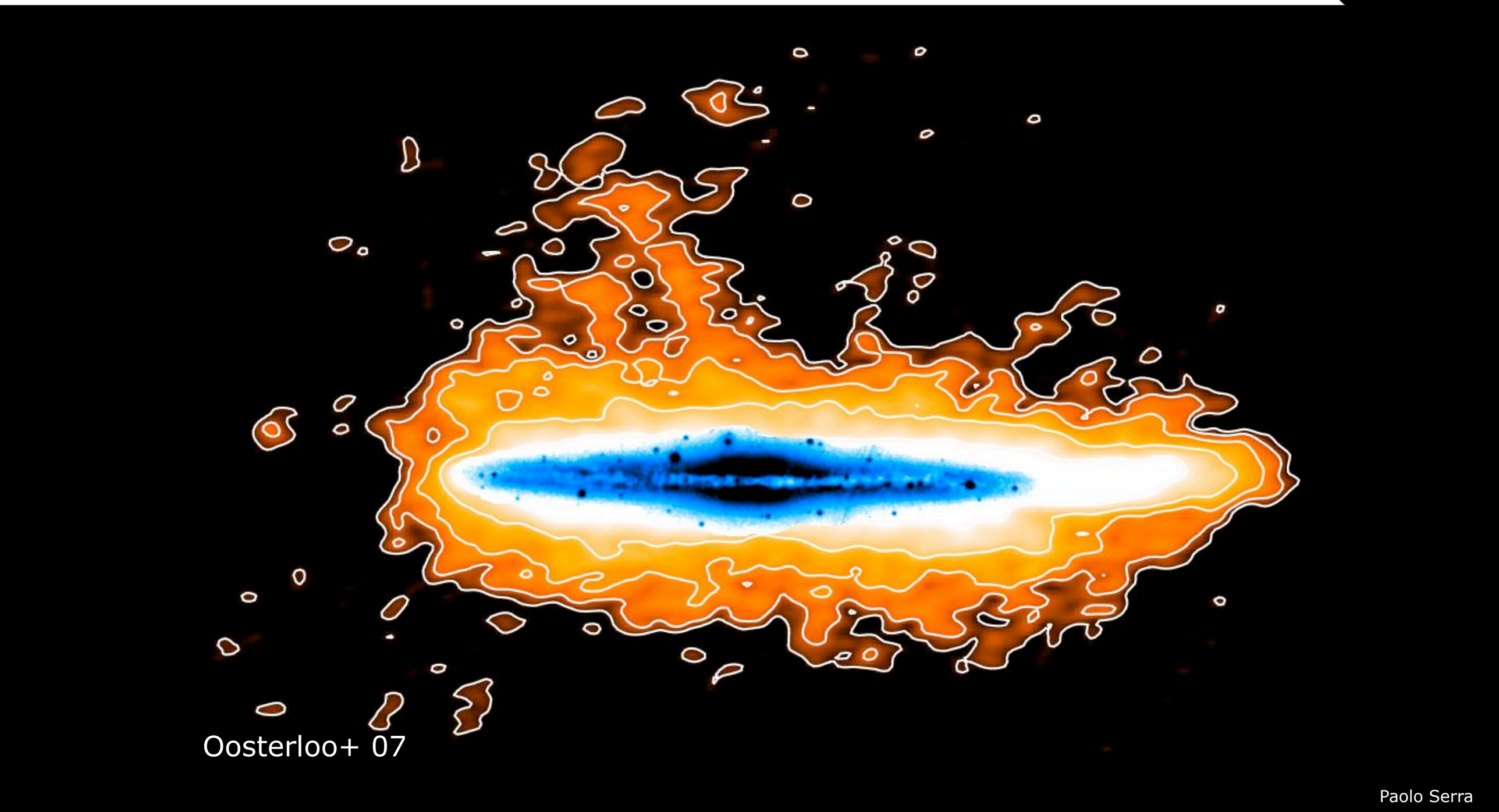
Boomsma+ 08

HI



$N(HI)>10^{19}$ cm^{-2}

A famous case



Galaxy evolution at work

Paolo Serra

Galaxy evolution at work

Martinez-Delgado+ 08

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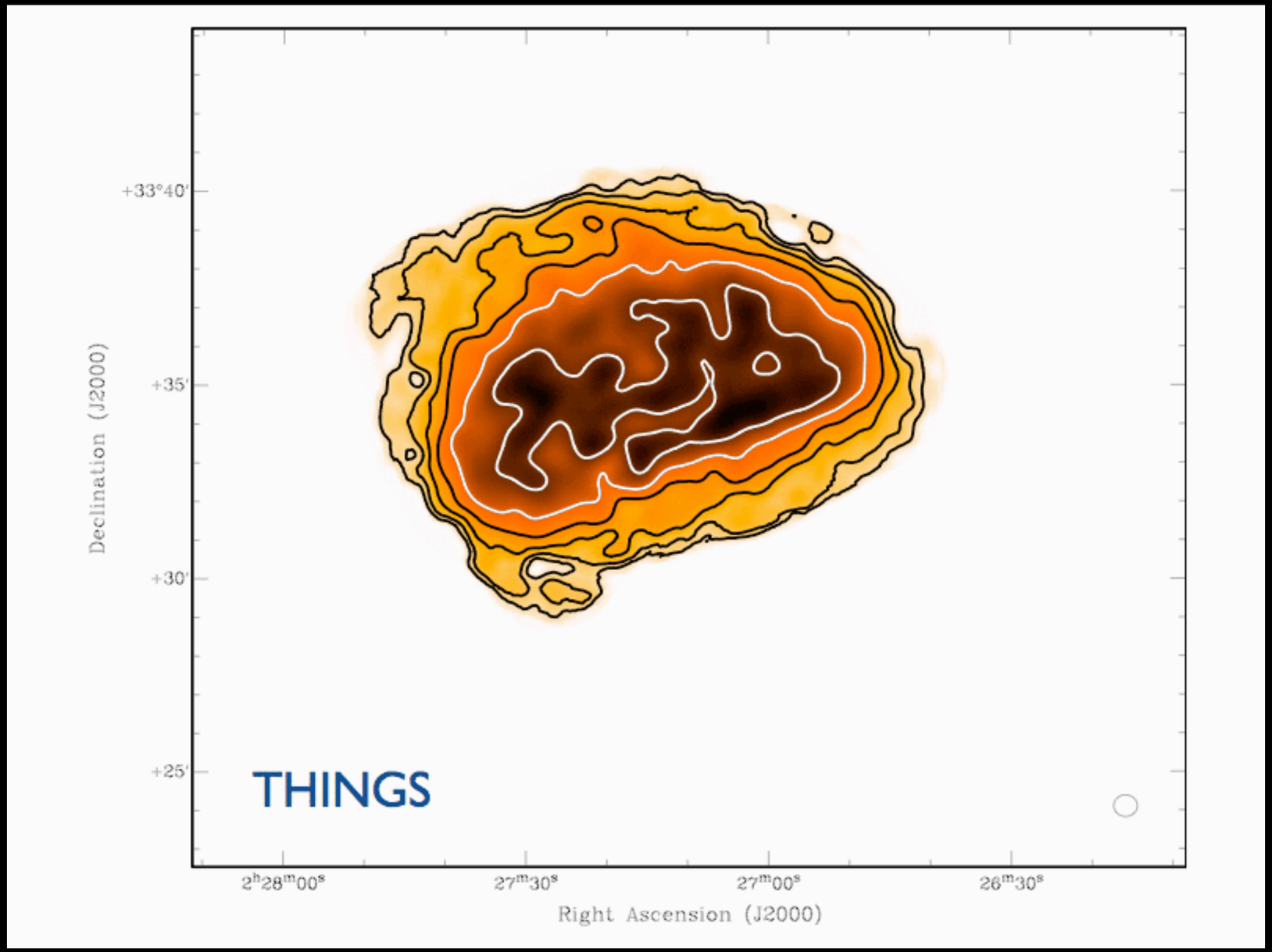
Looking for low column-density HI: HALOGAS



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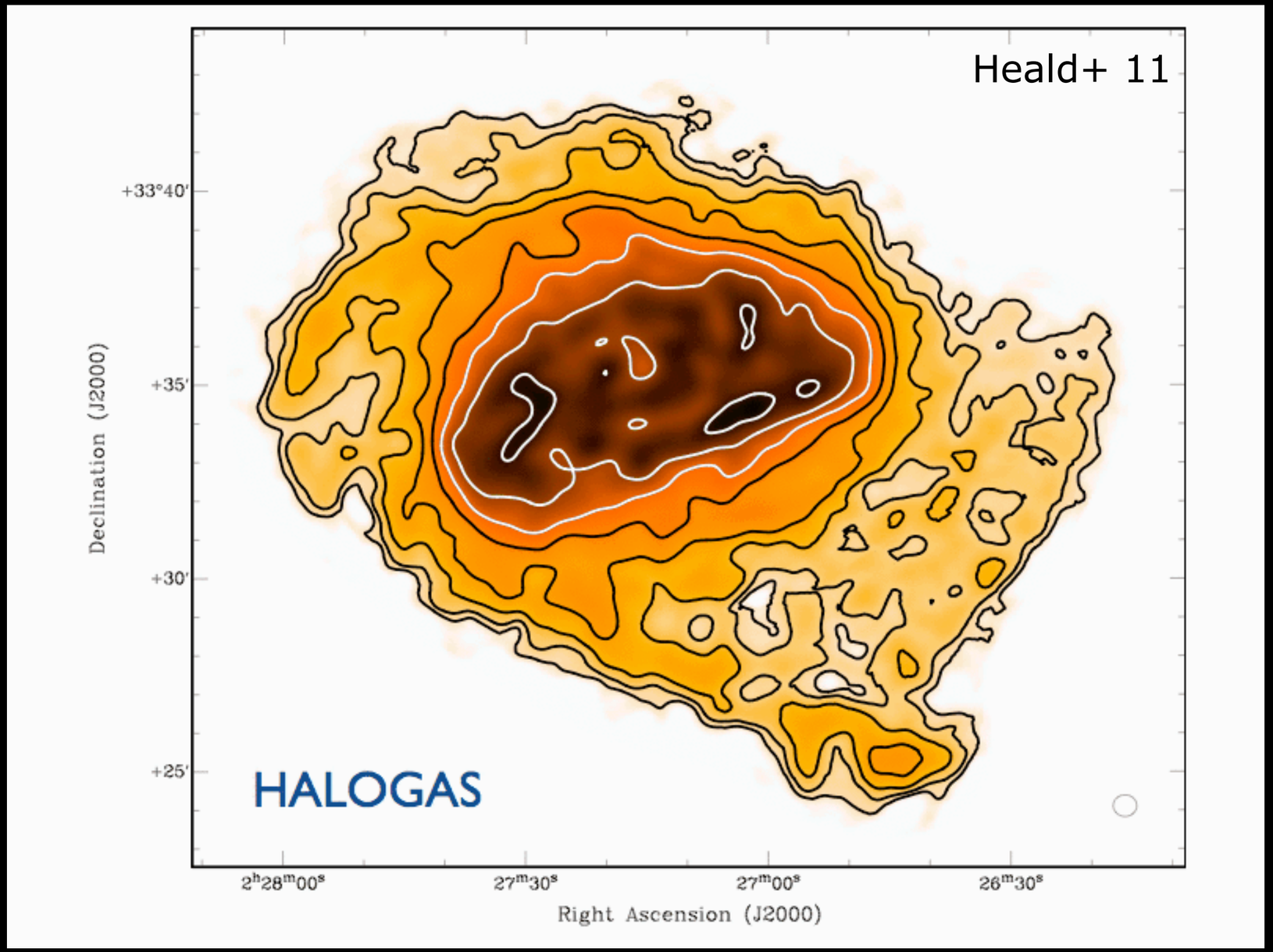
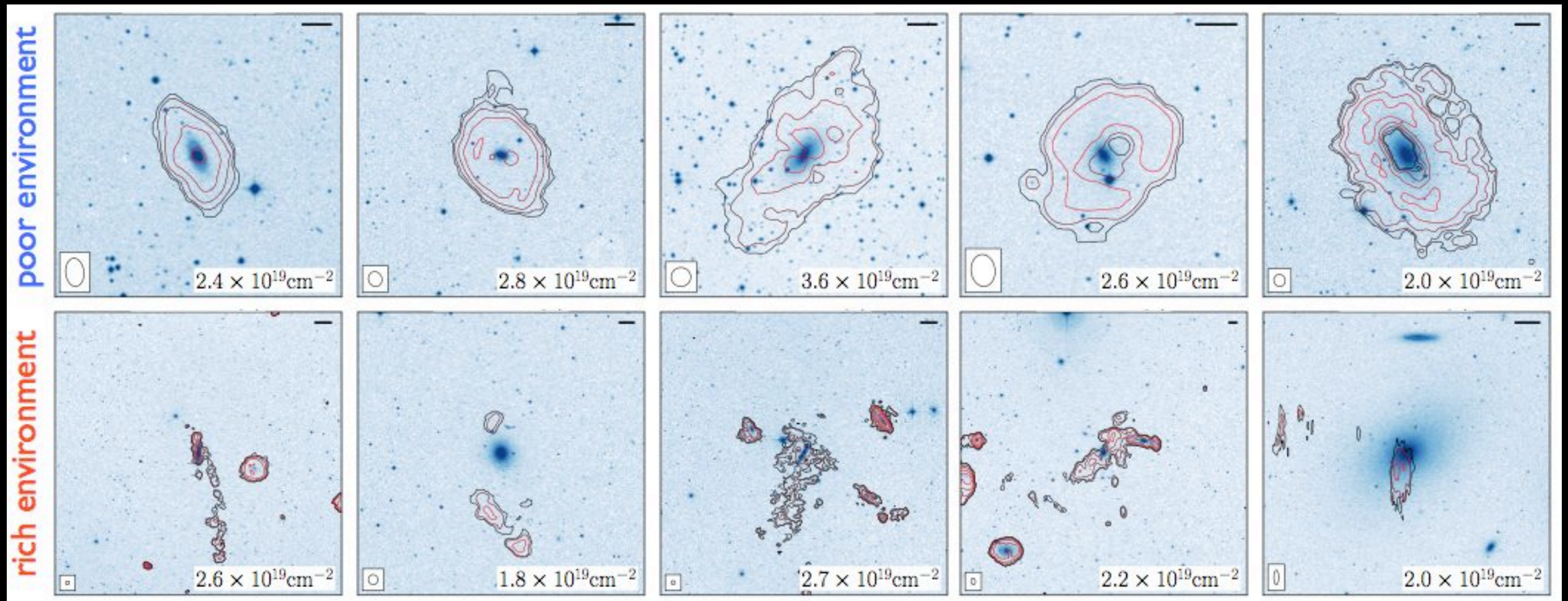
Looking for low column-density HI: HALOGAS



Atlas^{3D}: HI in early-type galaxies

Serra+ 12, arXiv:1111.4241



Aperture arrays: N(HI)=10^{19} cm^{-2} and below

EMMA

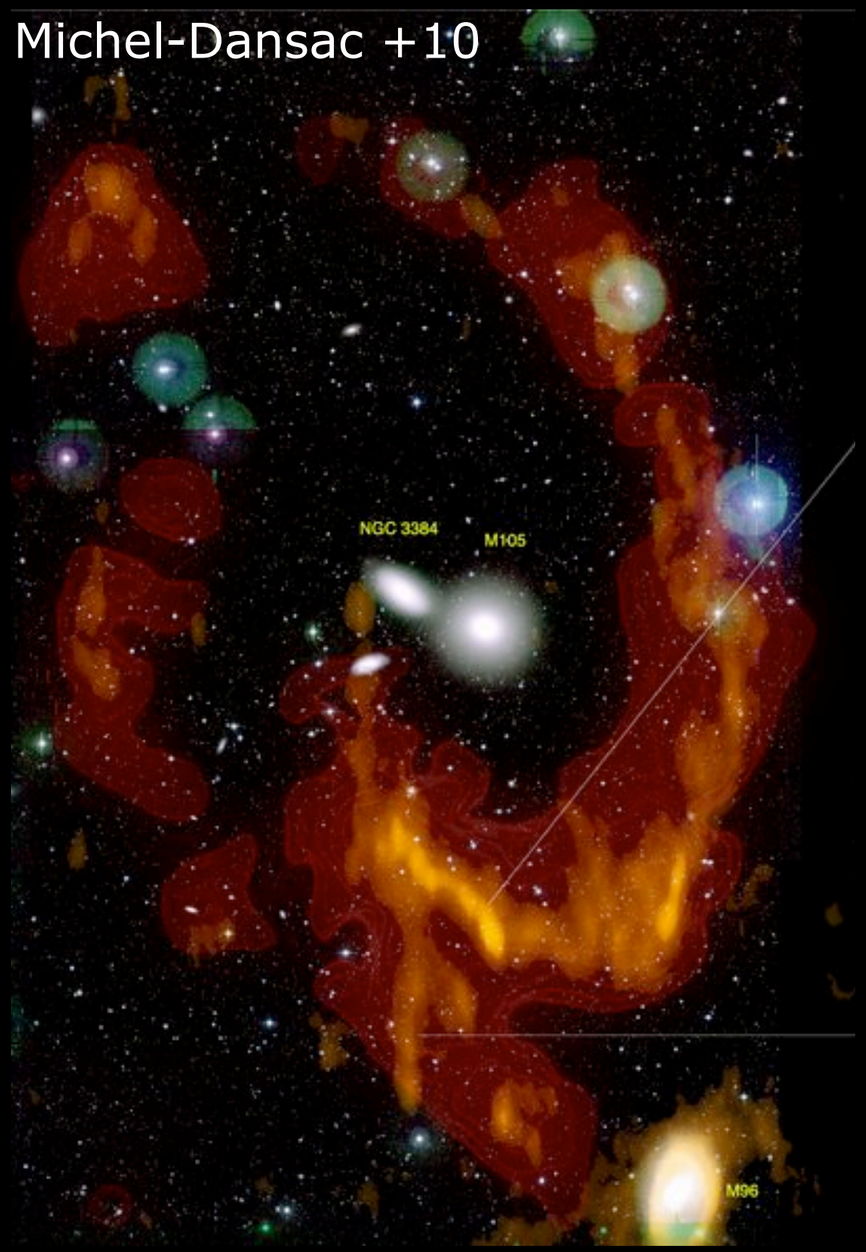
$N(HI)_{5\sigma} \sim 2\times10^{19}$ cm^{-2}

(t~1 h, dv~15 km/s, beam~2 arcmin, FOV~80 deg^2)

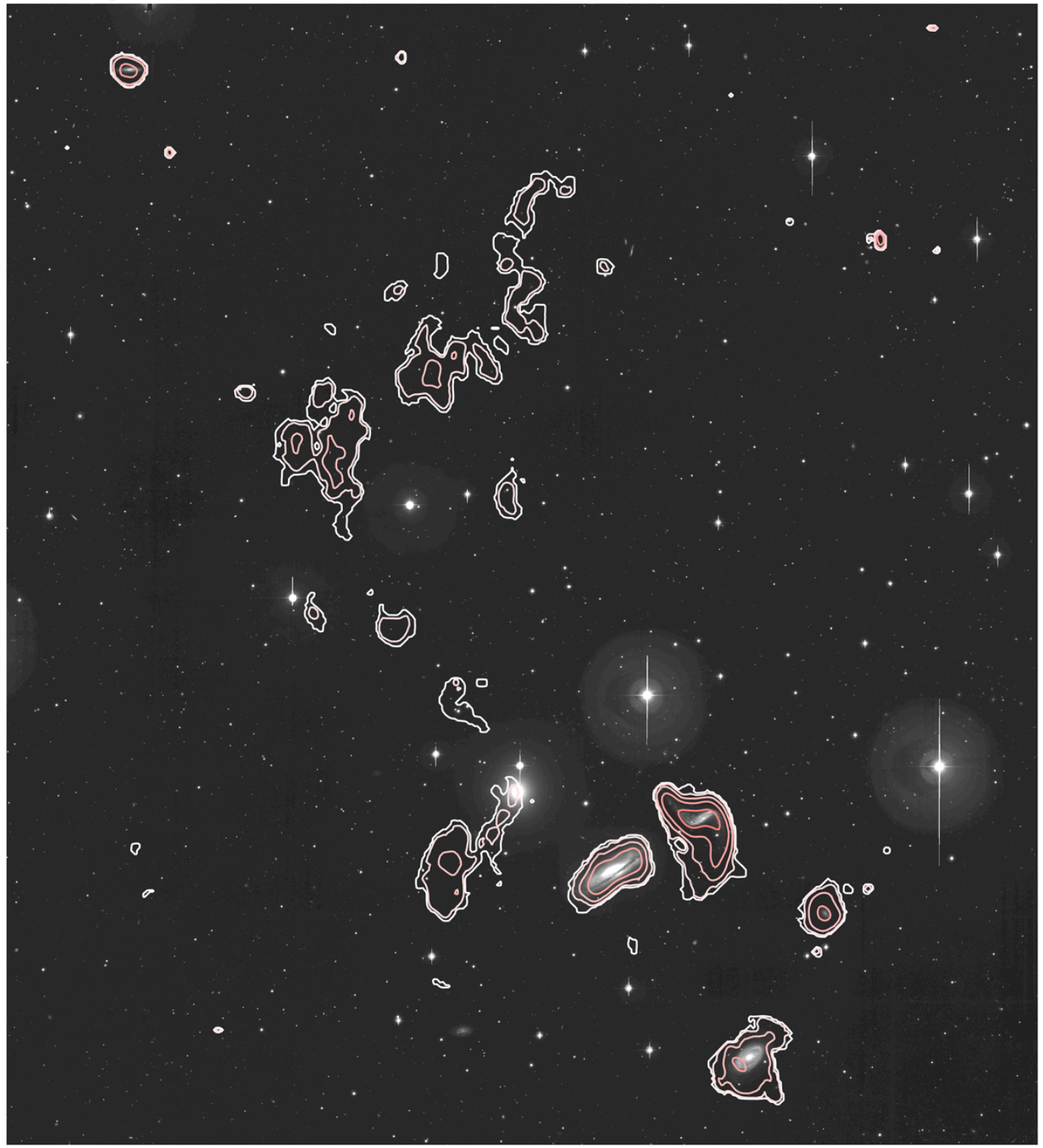
Could image cold gas filaments?

Large field of view

Michel-Dansac +10



Serra+



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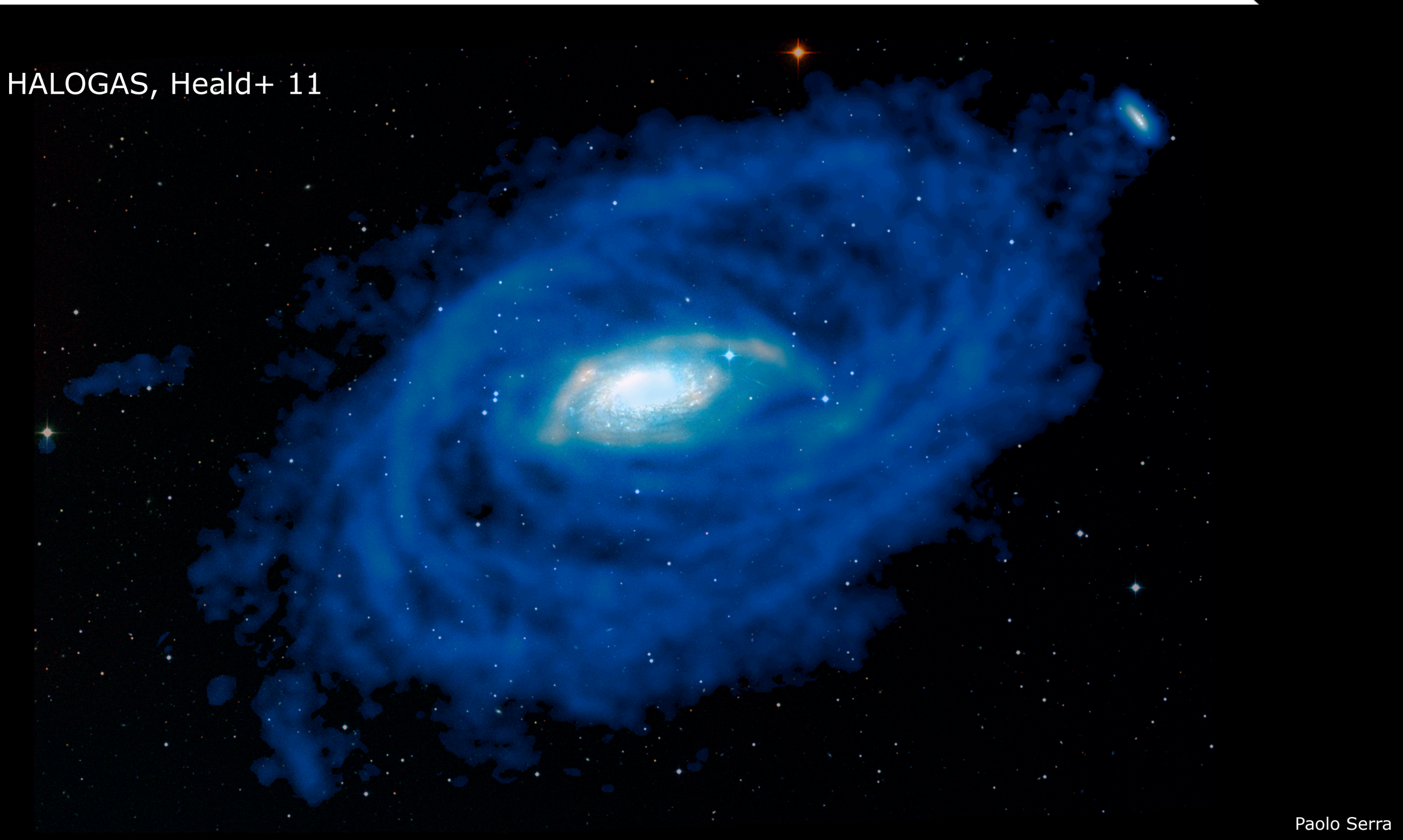
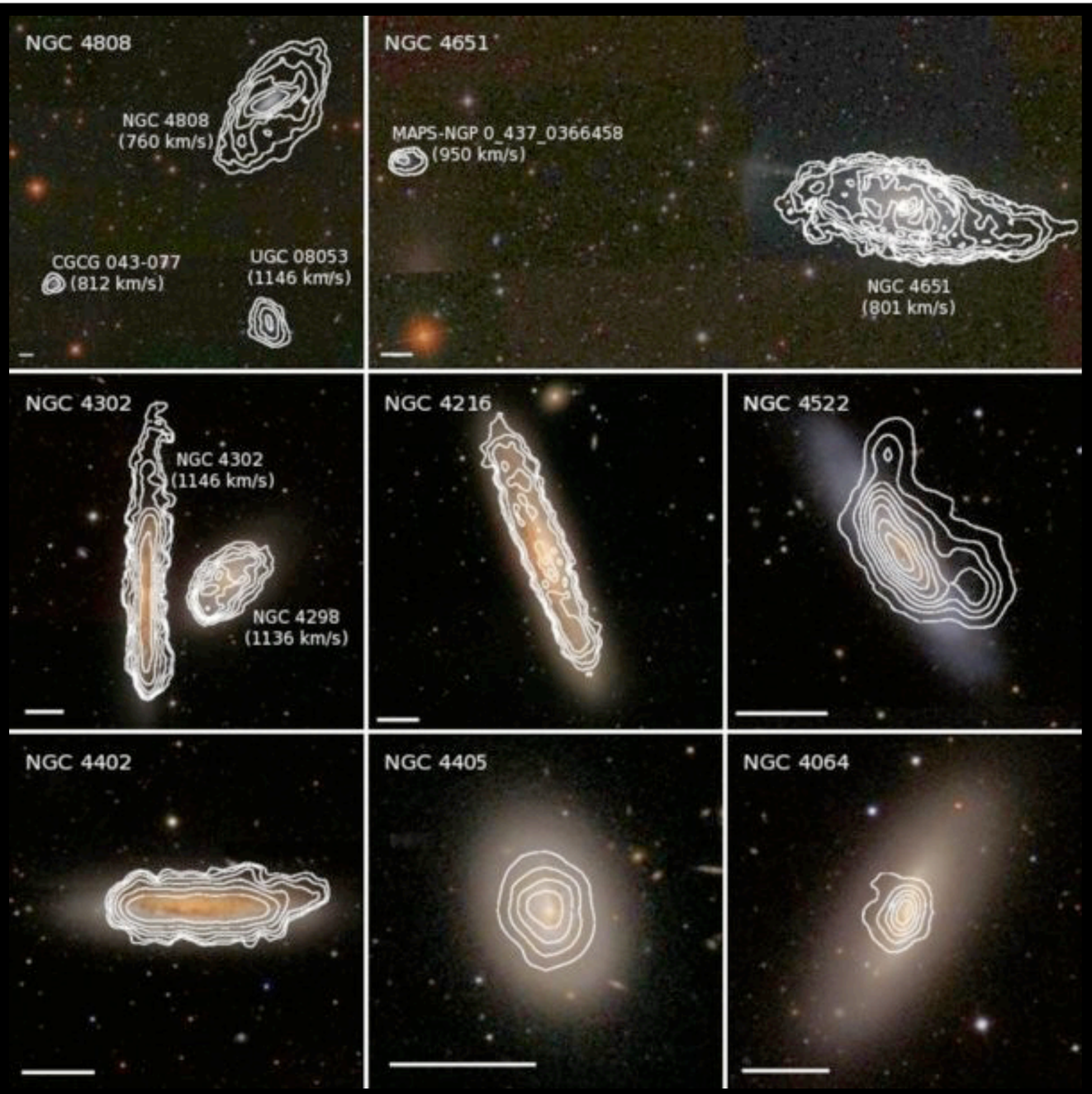
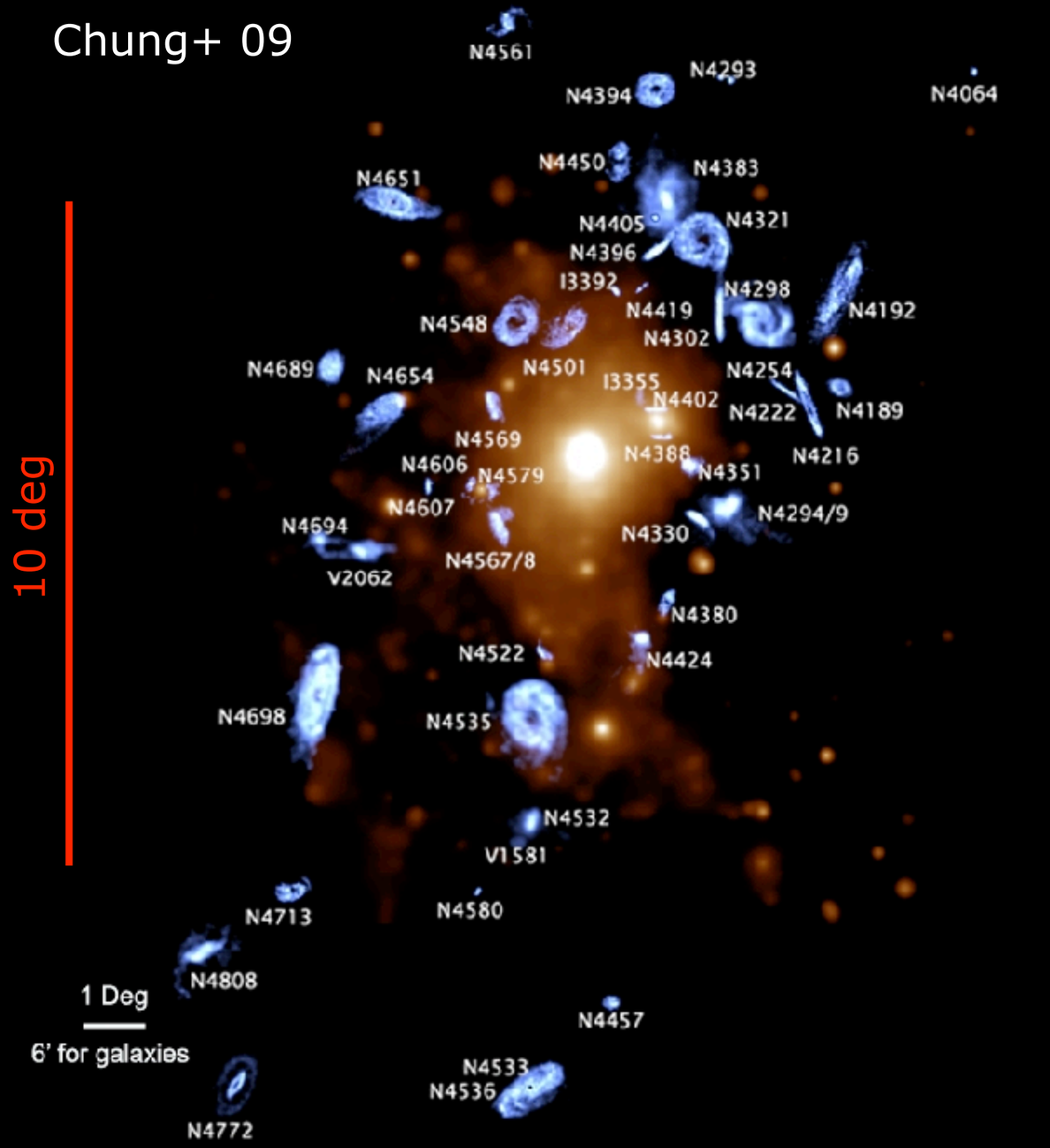
Large field of view



Virgo with EMMA?



Chung+ 09



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