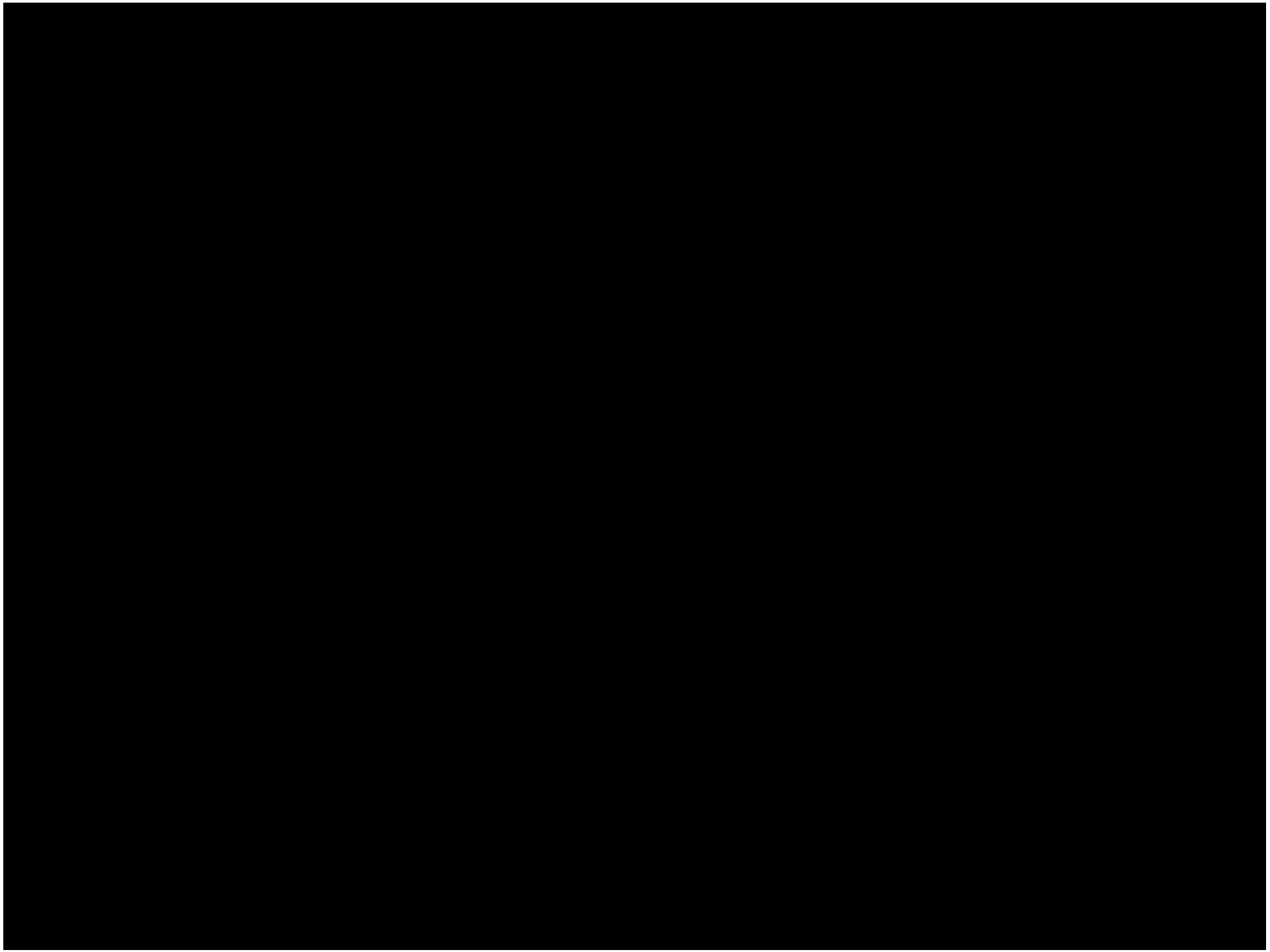
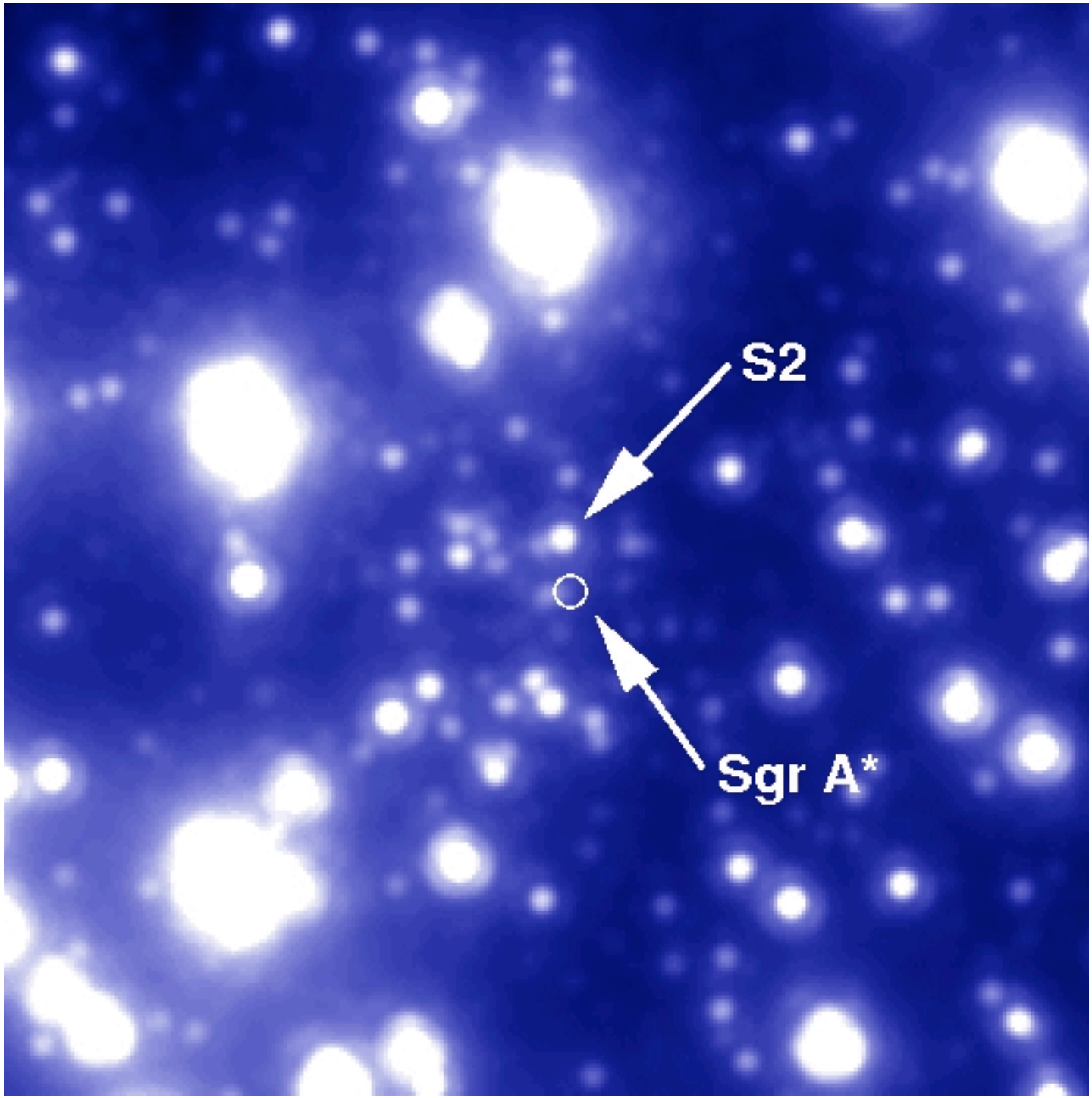
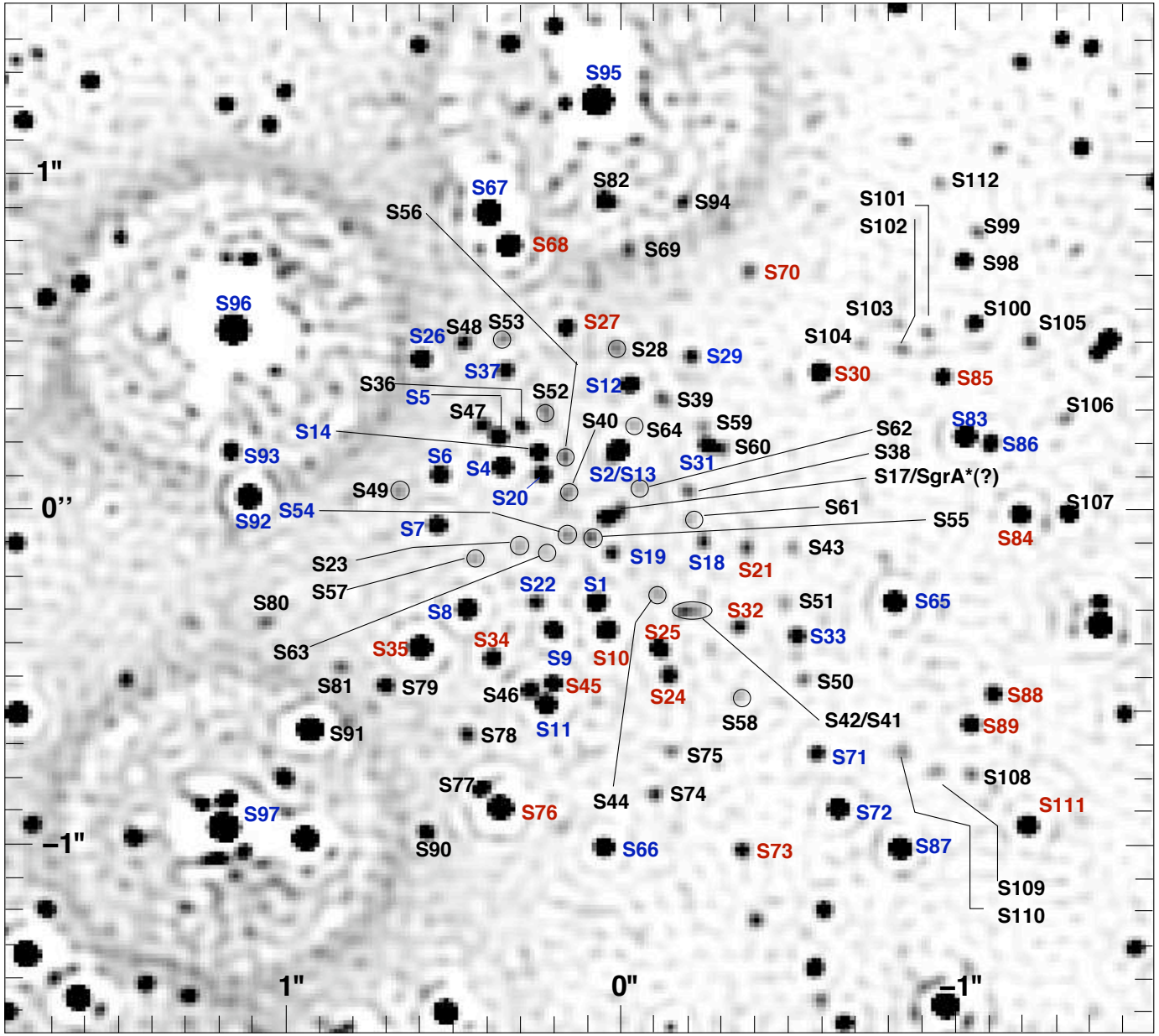




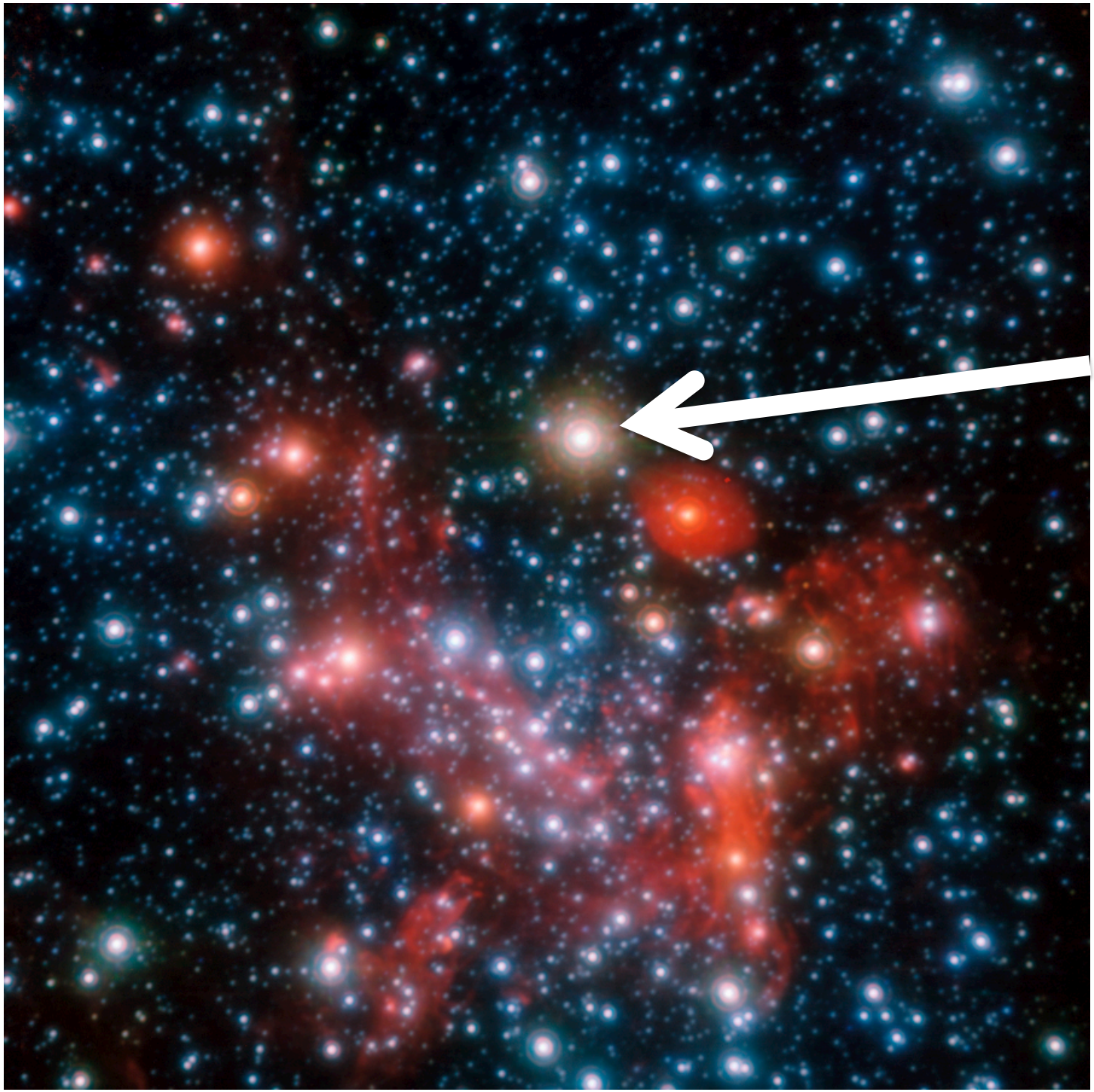
Diffraction-limited Images

NACO, H, April 2007

100 stars in 1’’



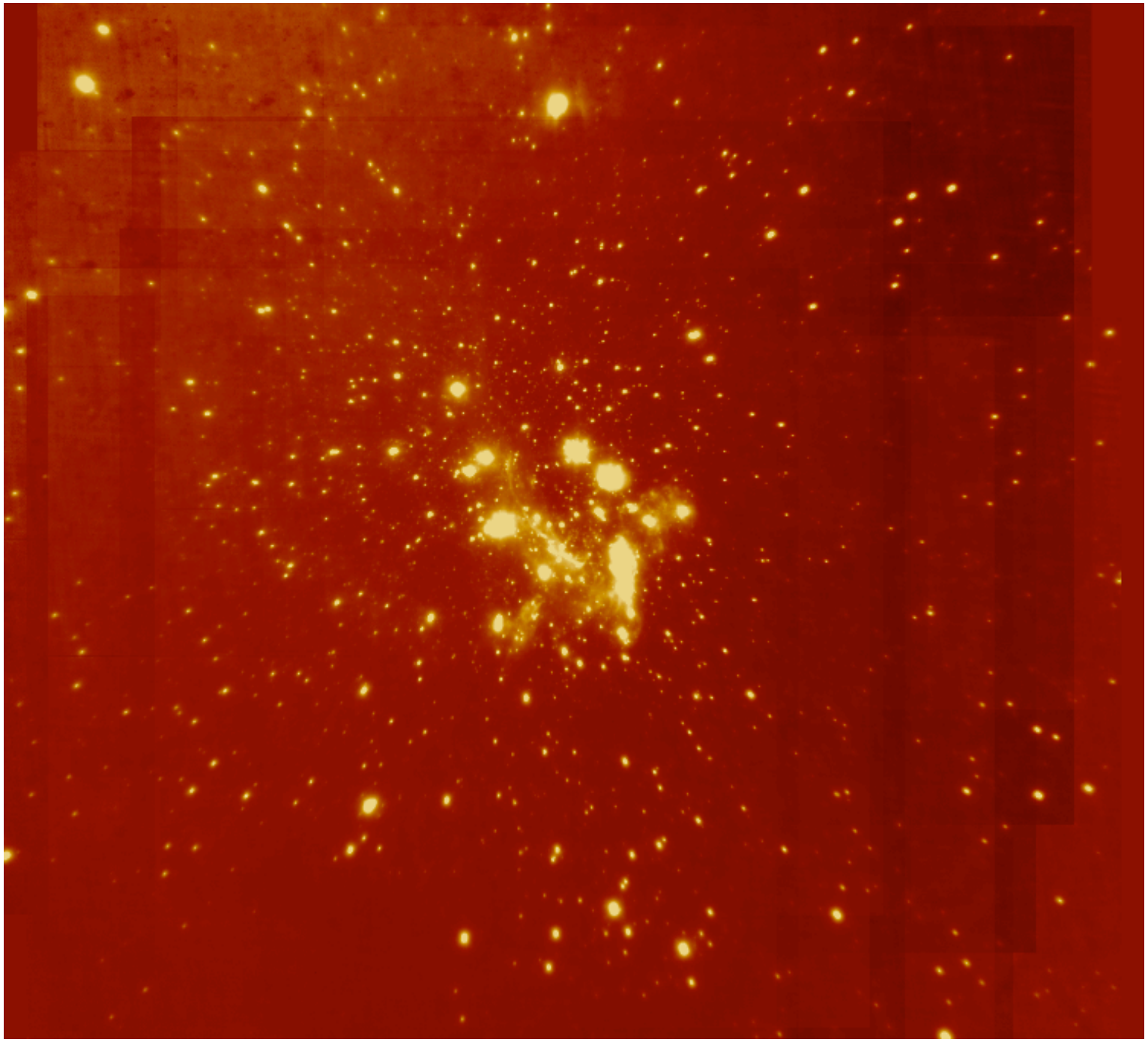
NACO, H deconvolved



The clue: NIR WFS

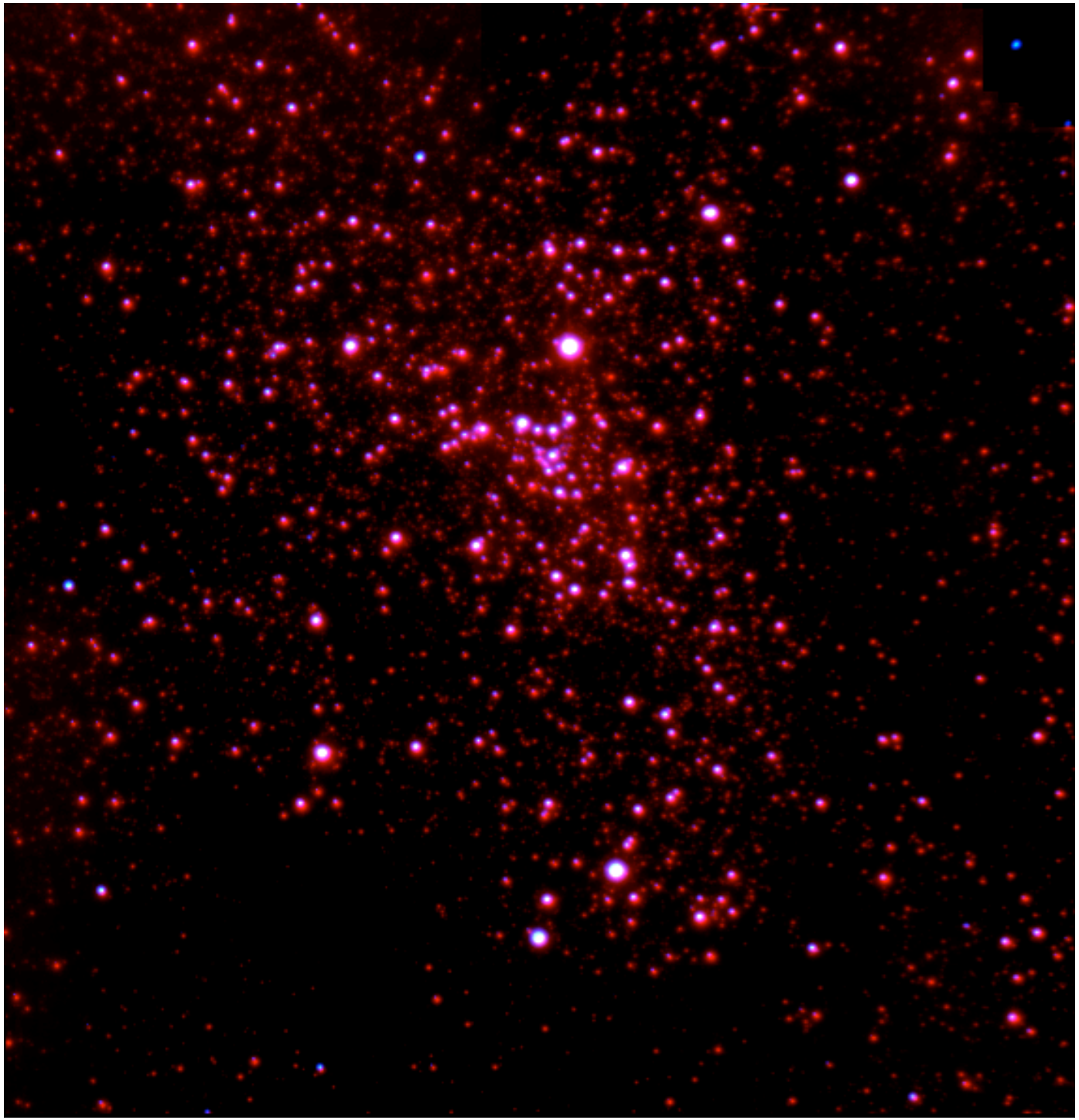
IRS7: mK=6.5

NACO, HKL



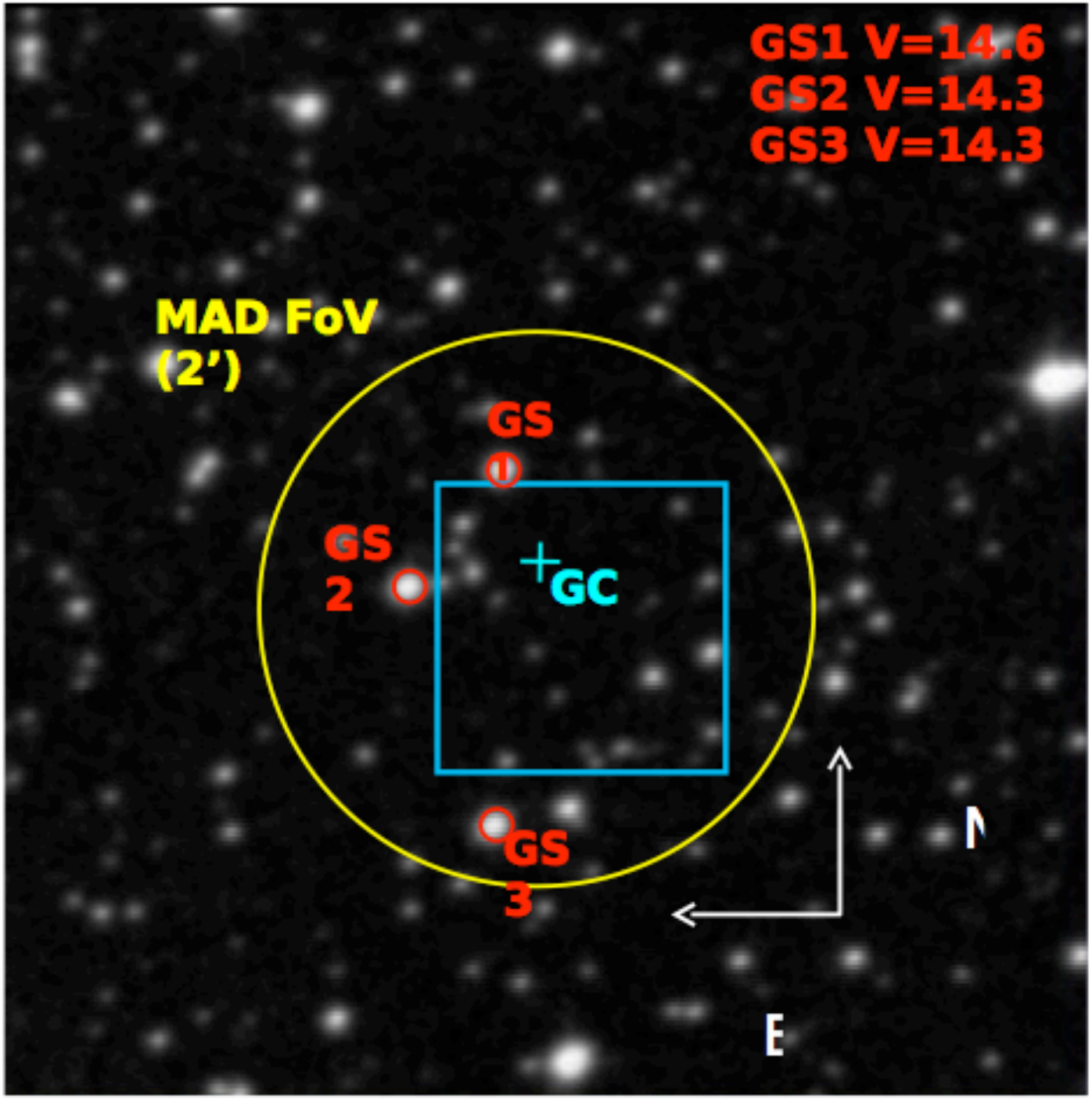
Aniso-plana-tism

NACO, L



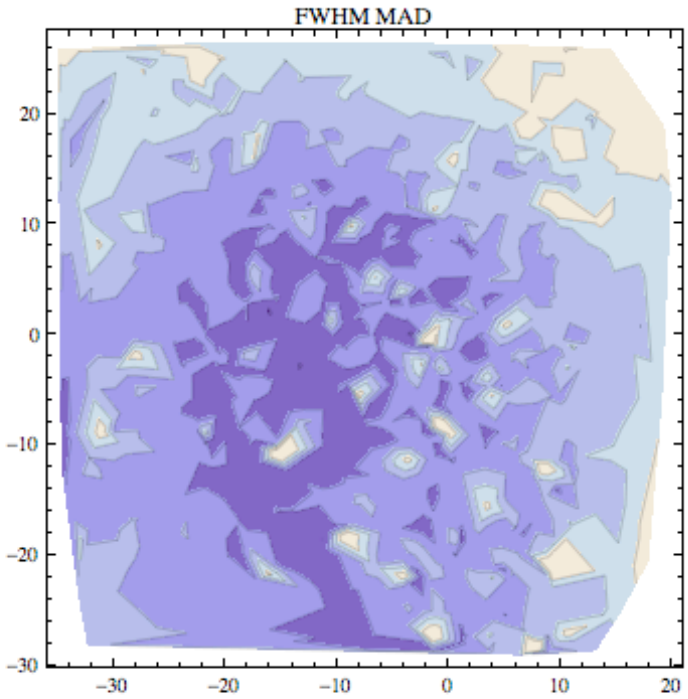
MAD: stable PSF

MAD, HK

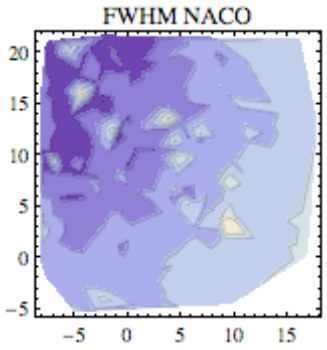


MAD: VIS-WFS

DSS

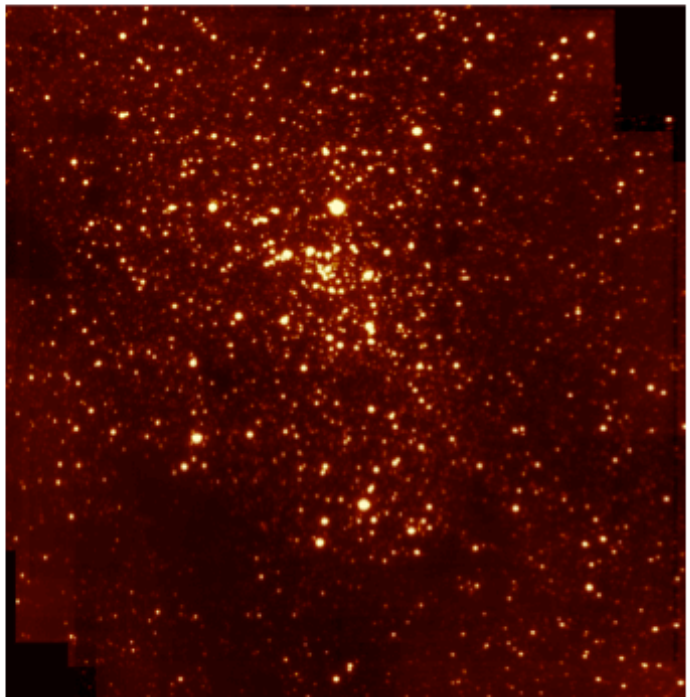


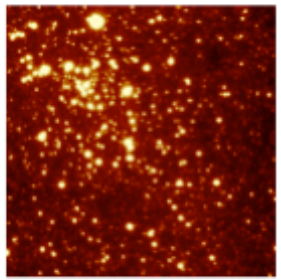
FWHM

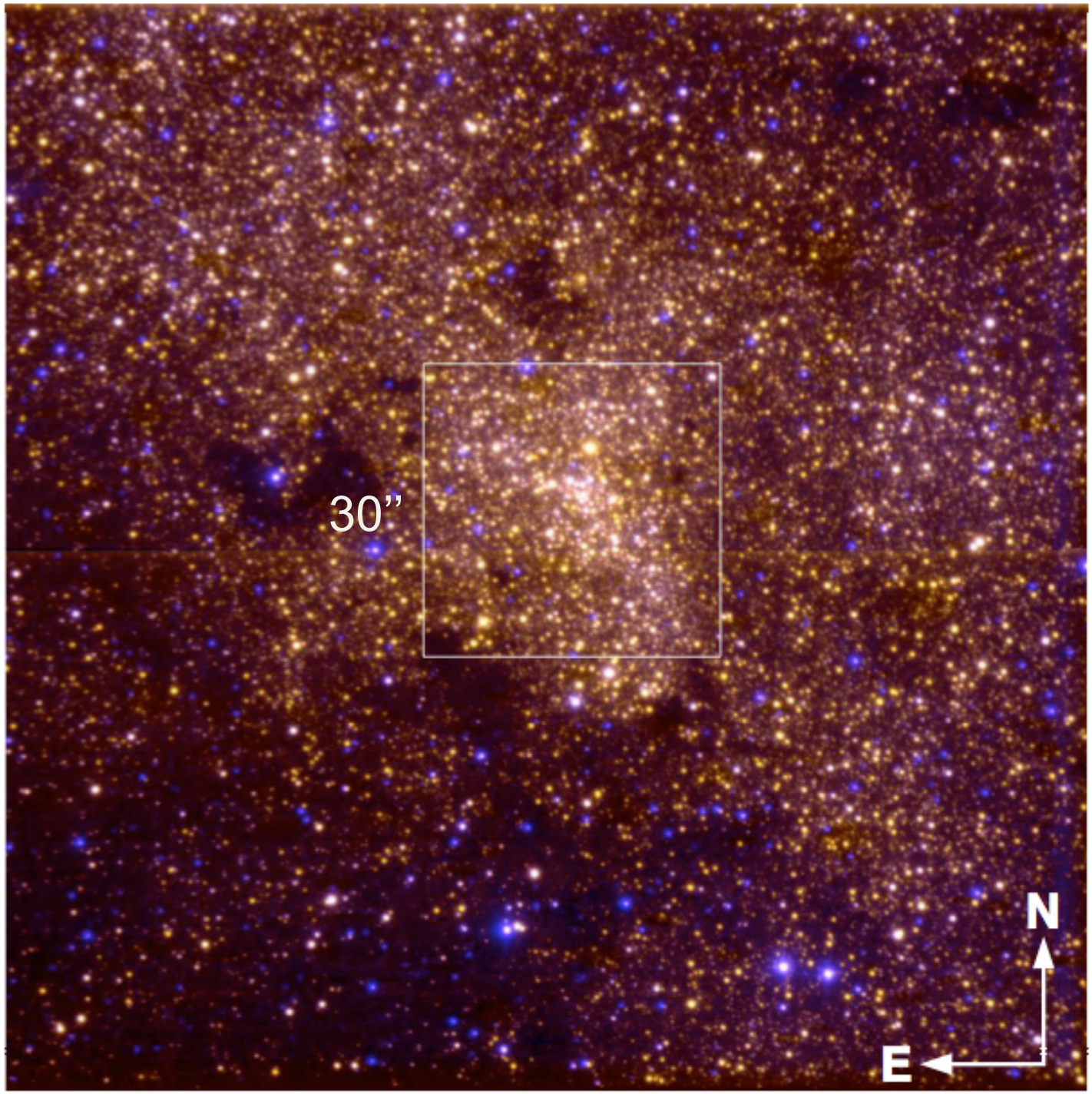


Central 10’’: NACO is doing better

Outside: MAD = NACO





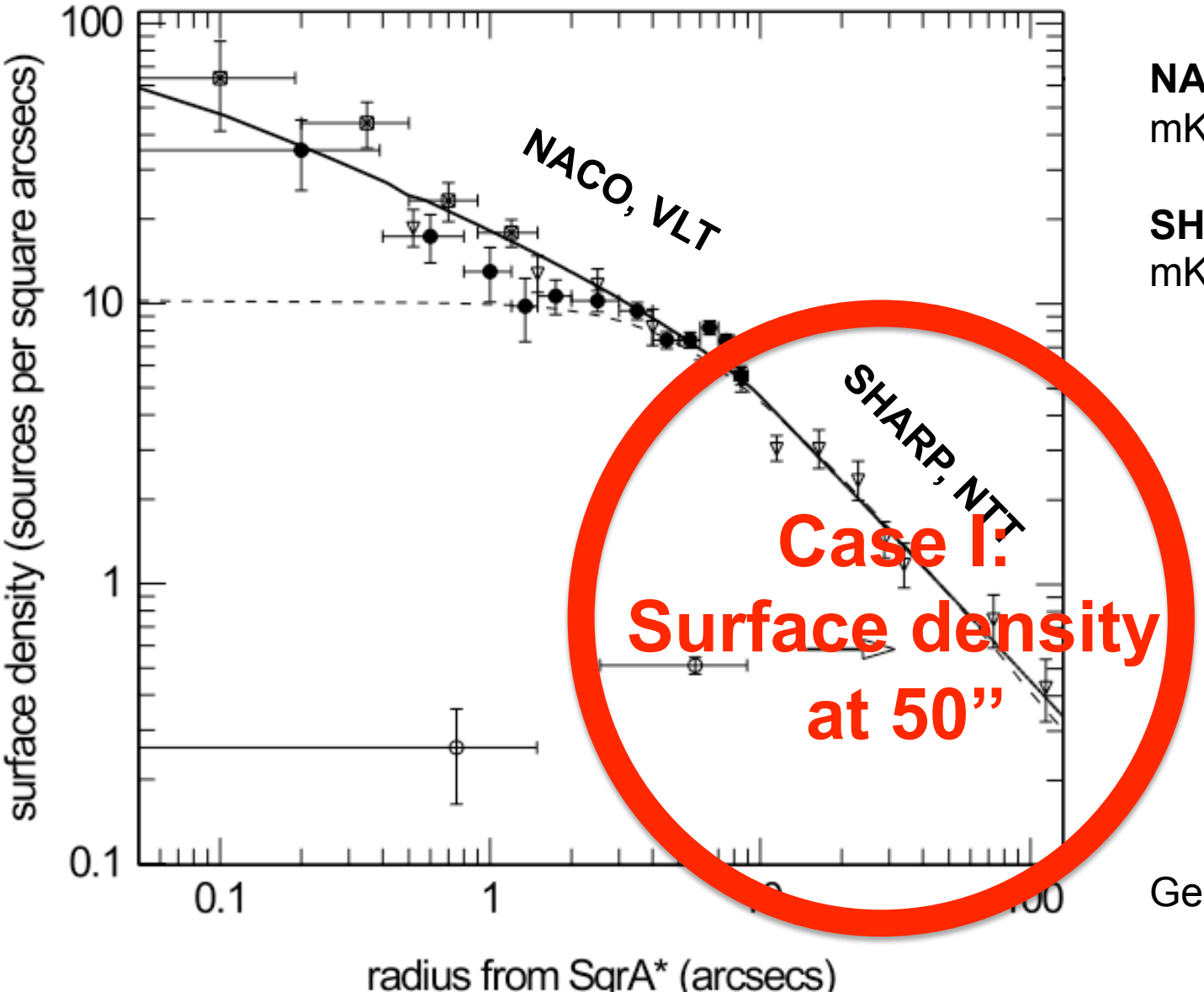


MAD(MAX):

larger scale structure of nuclear cluster

Schödel+ 2007, ISAAC, JHK

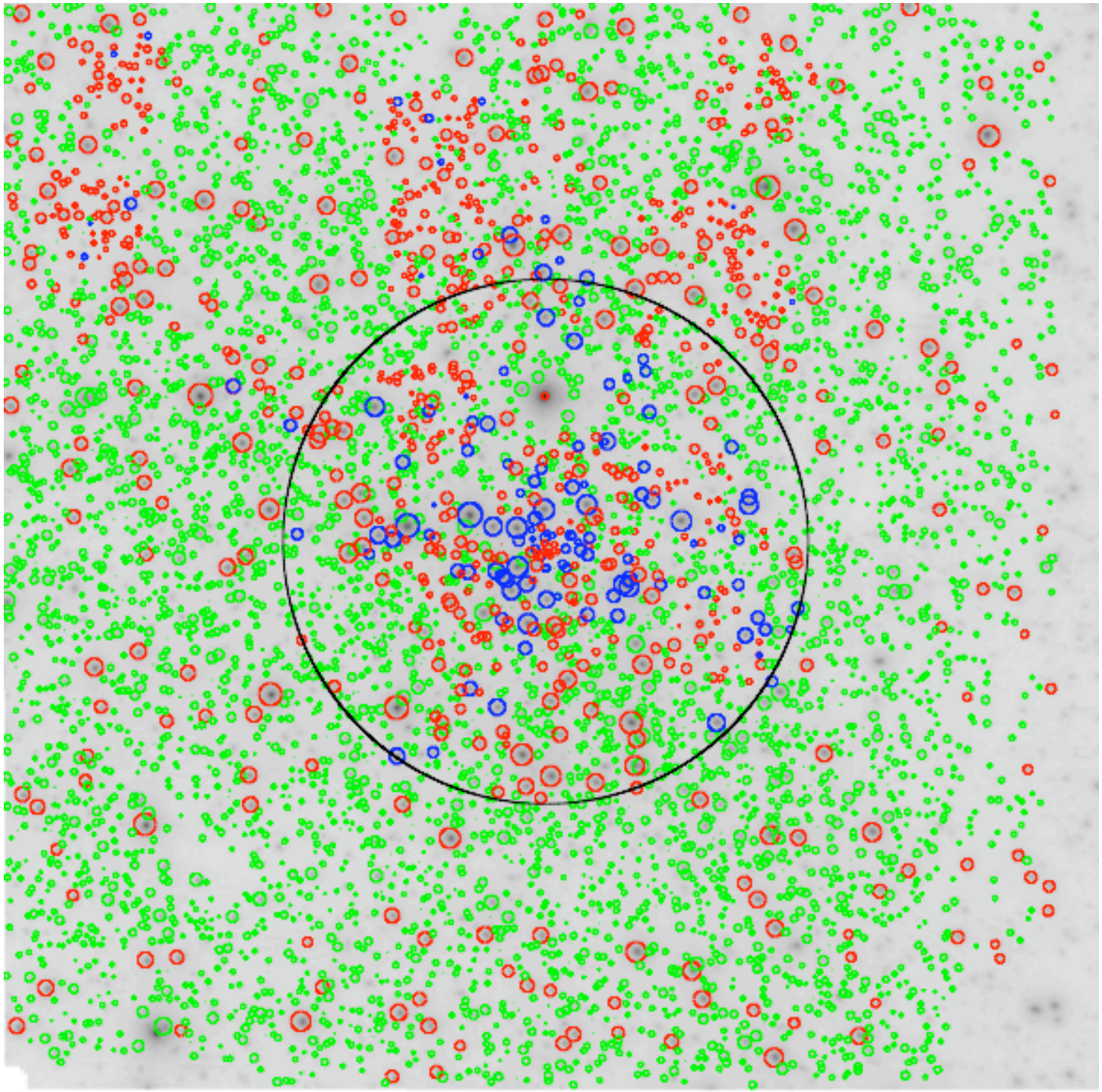
Surface density from stellar counts



NACO:
mK ≤ 17

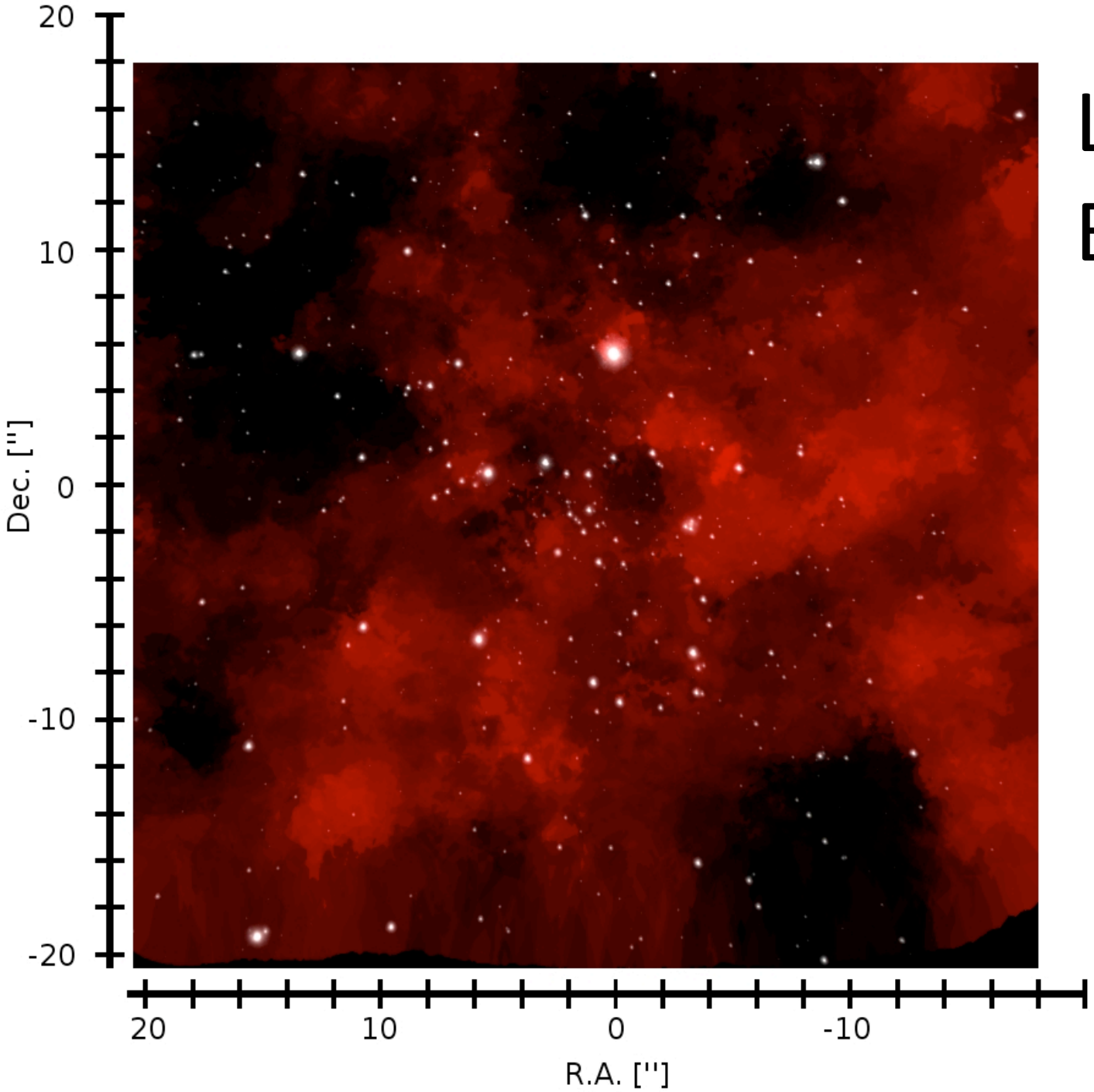
SHARP:
mK ≤ 15
(& scaled up)

Genzel+ 2003



H & K: colors & extinction

photometric classification from H/K, NACO (& SINFONI fields)

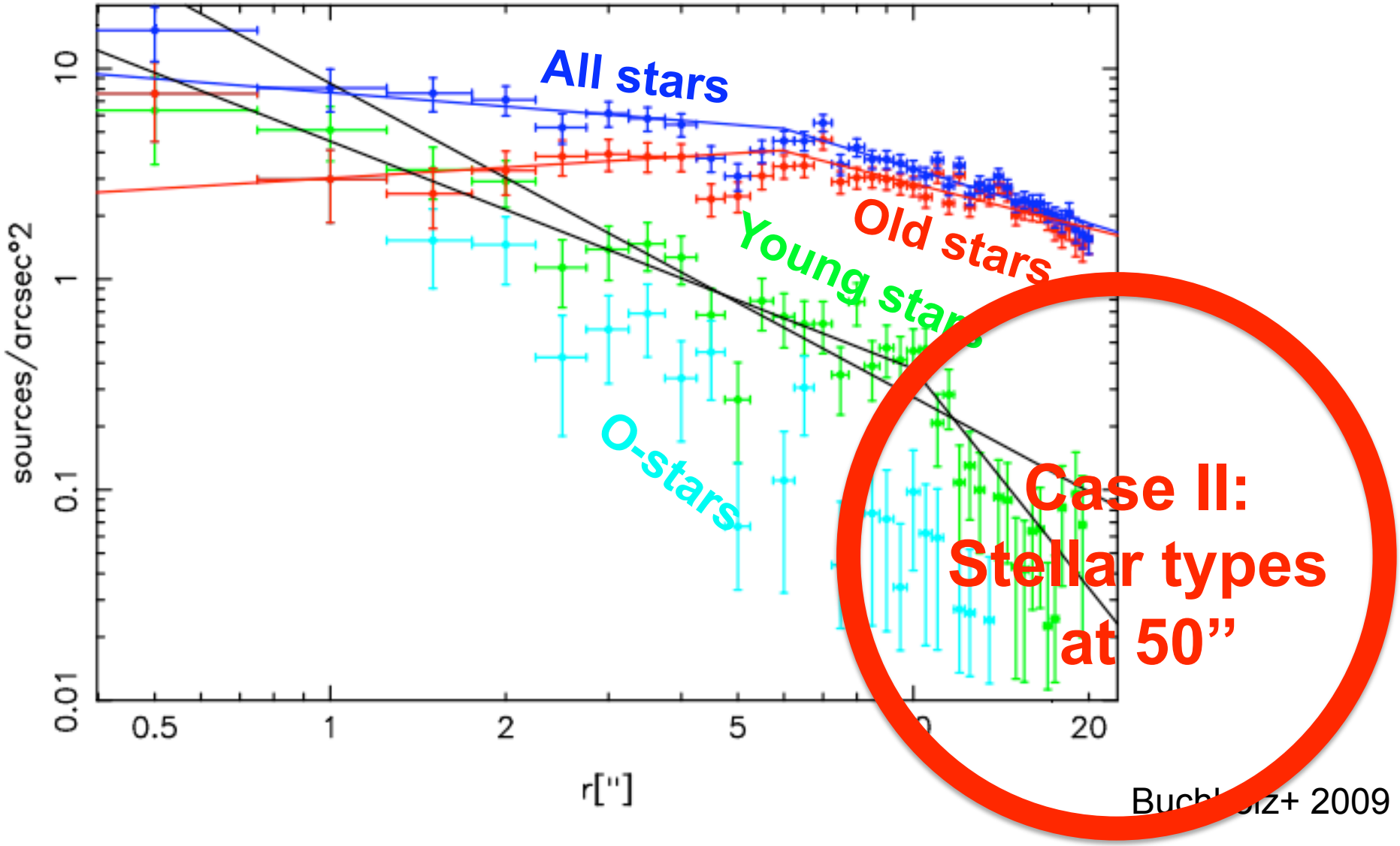


Local Extinction

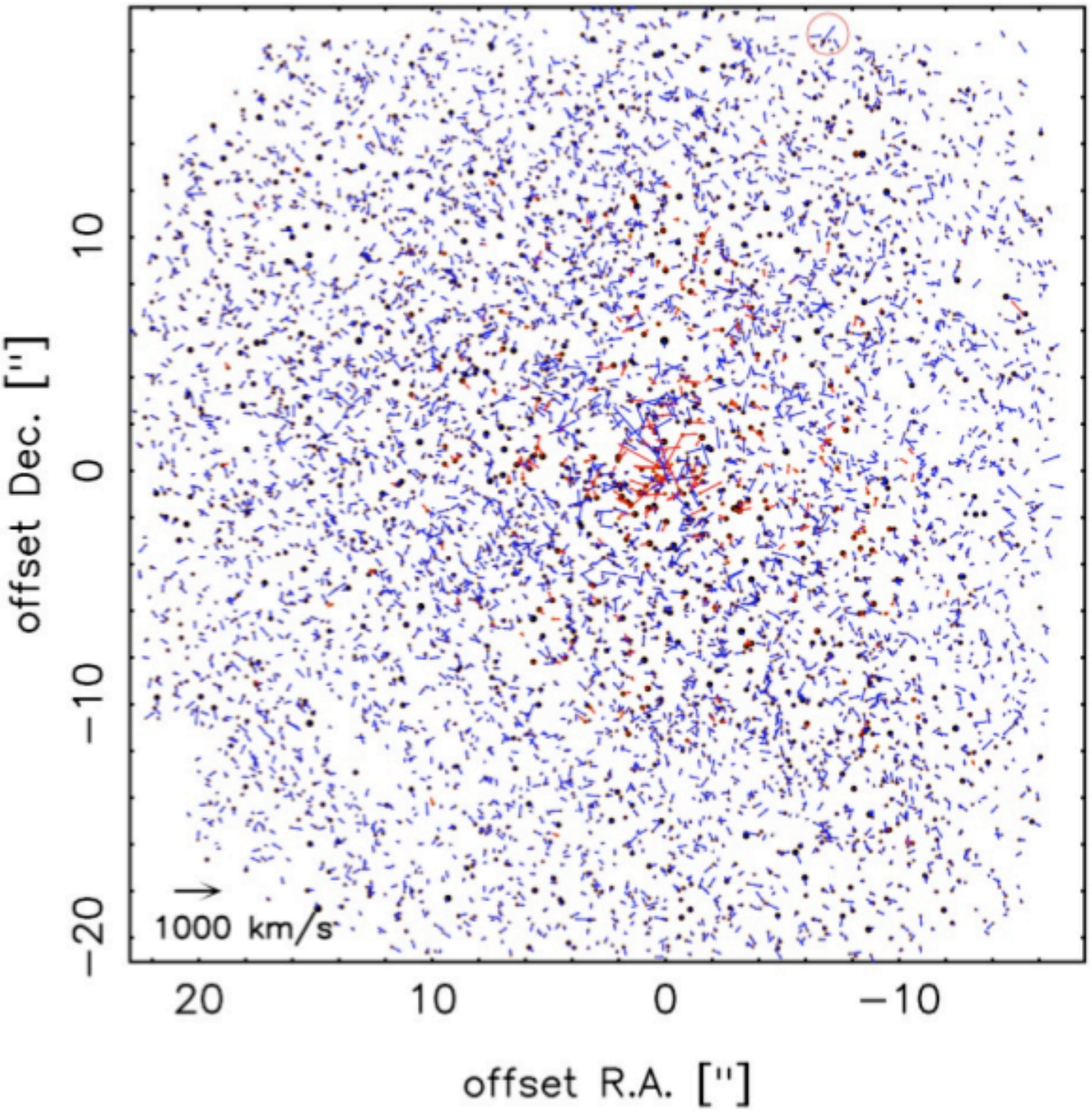
extinction
in each position:

from median
H-K of 20 next
stars

Cluster profile differs for various stellar types



Buchholz+ 2009

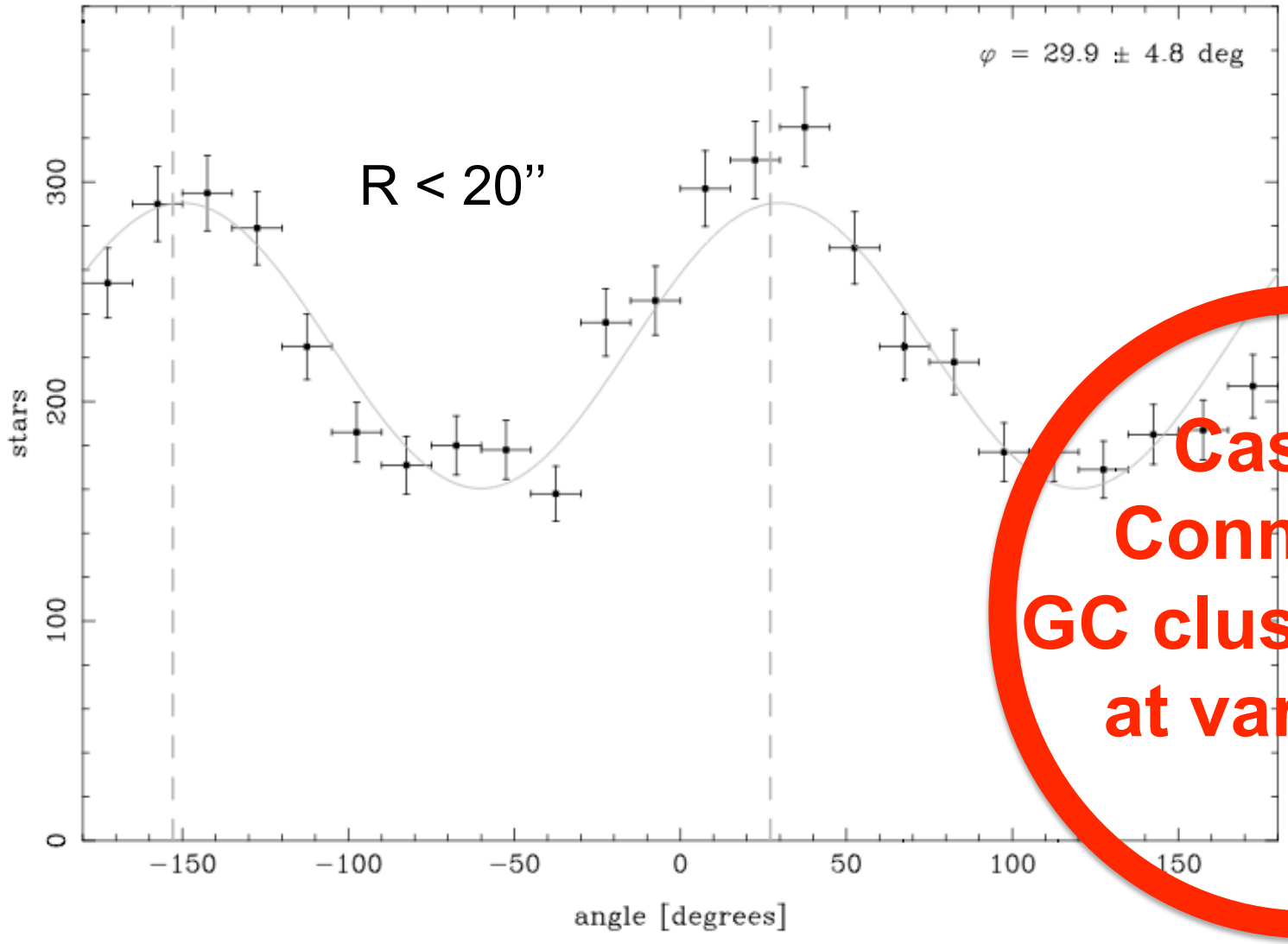


Multiepoch data:

Proper motions

Schödel+ 2009

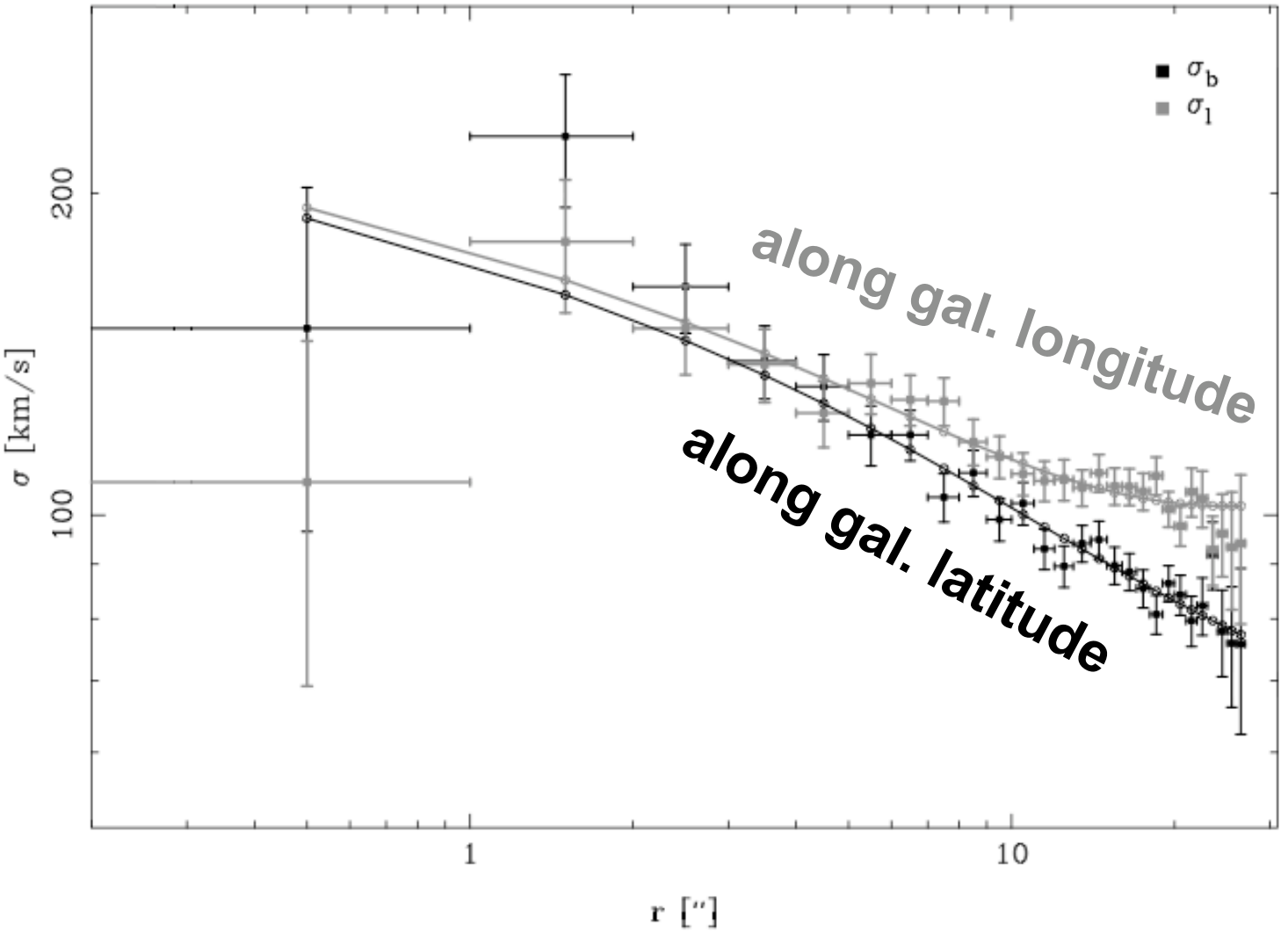
Global Milky Way rotation pattern visible in proper motions



Case III: Connection GC cluster – MW at various R

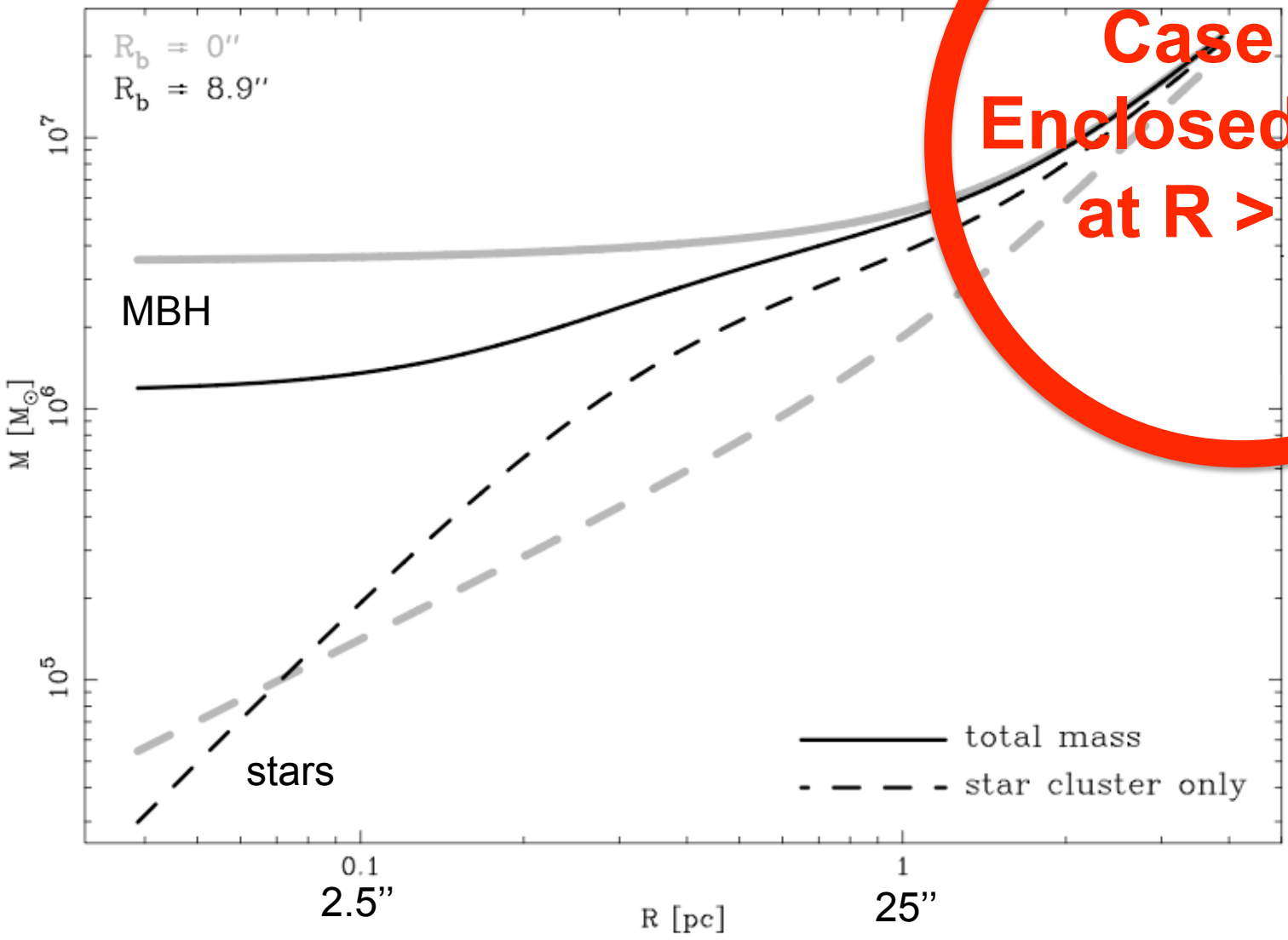
Trippe+ 2008

Stellar Dispersion measurements



Trippe+ 2008

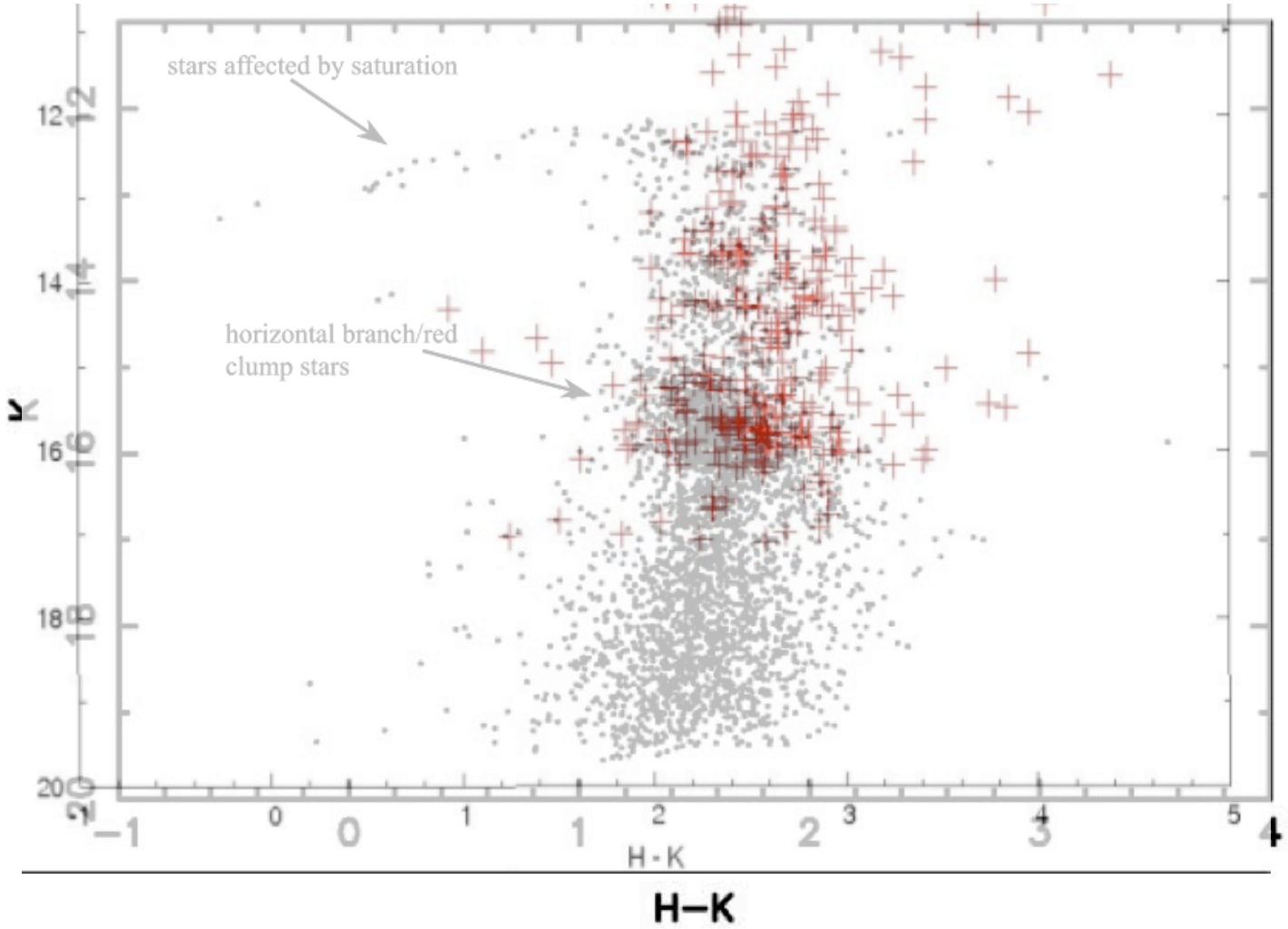
Enclosed mass as function of R



Case IV: Enclosed mass at R > 50”

Trippe+ 2008

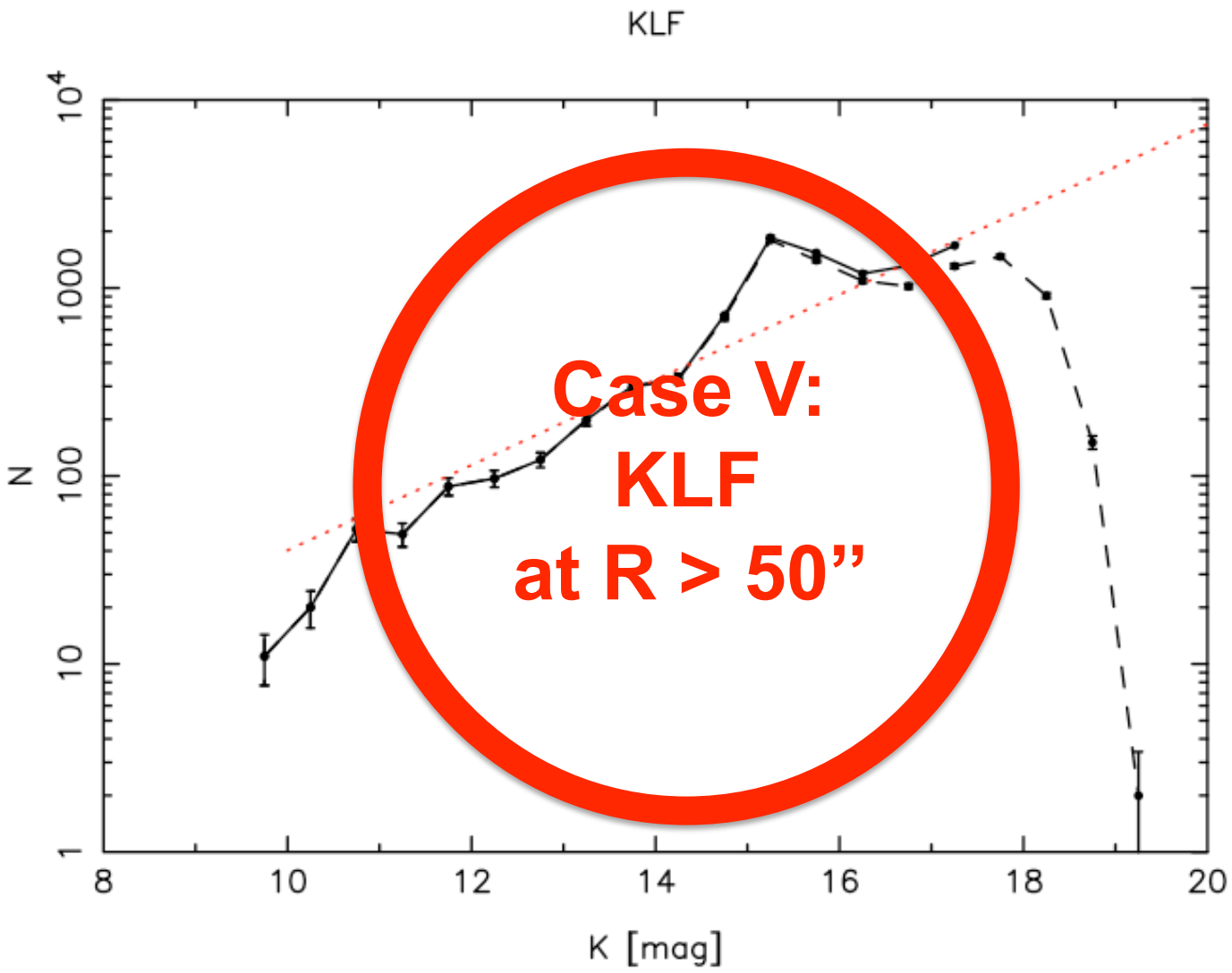
MAD data was not yet deep enough



MAD

Genzel+ 2003

Measure KLF



KLF changes with radius

Schödel+ 2007

Summary I:
MADMAX interesting for larger scale structure of GC cluster

- **I: Cluster Profile at larger radii**
- **II: Stellar types as function of radius**
- **III: Connection GC cluster and MW**
- **IV: Enclosed mass at larger radii**
- **V: KLF at larger radii**

Summary II

The science

close to the Black Hole needs

NACO

(diffraction limited, NIR-WFS)

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