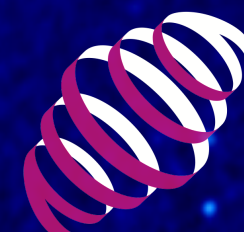


LOFAR MSSS

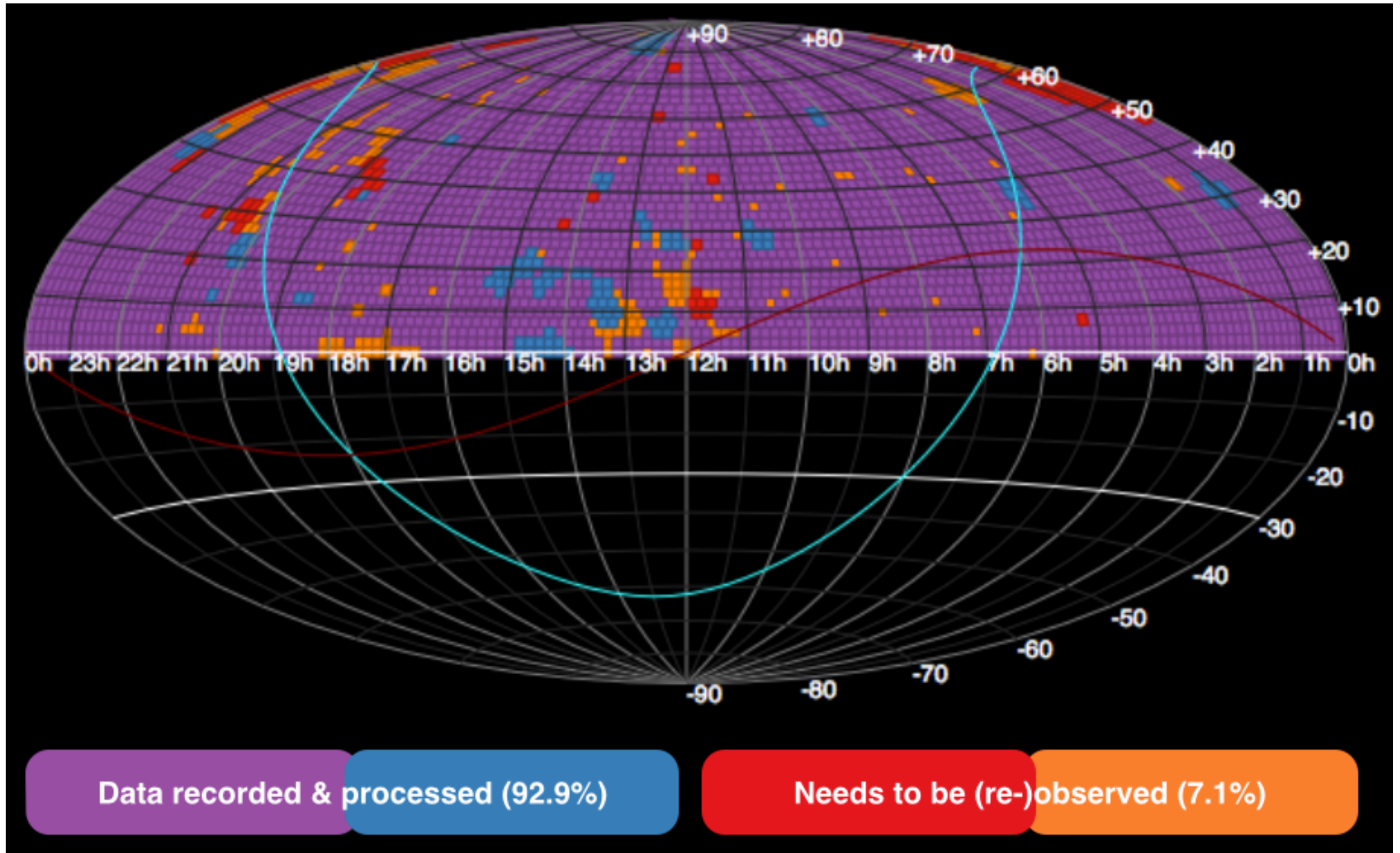
Multifrequency Snapshot Sky Survey

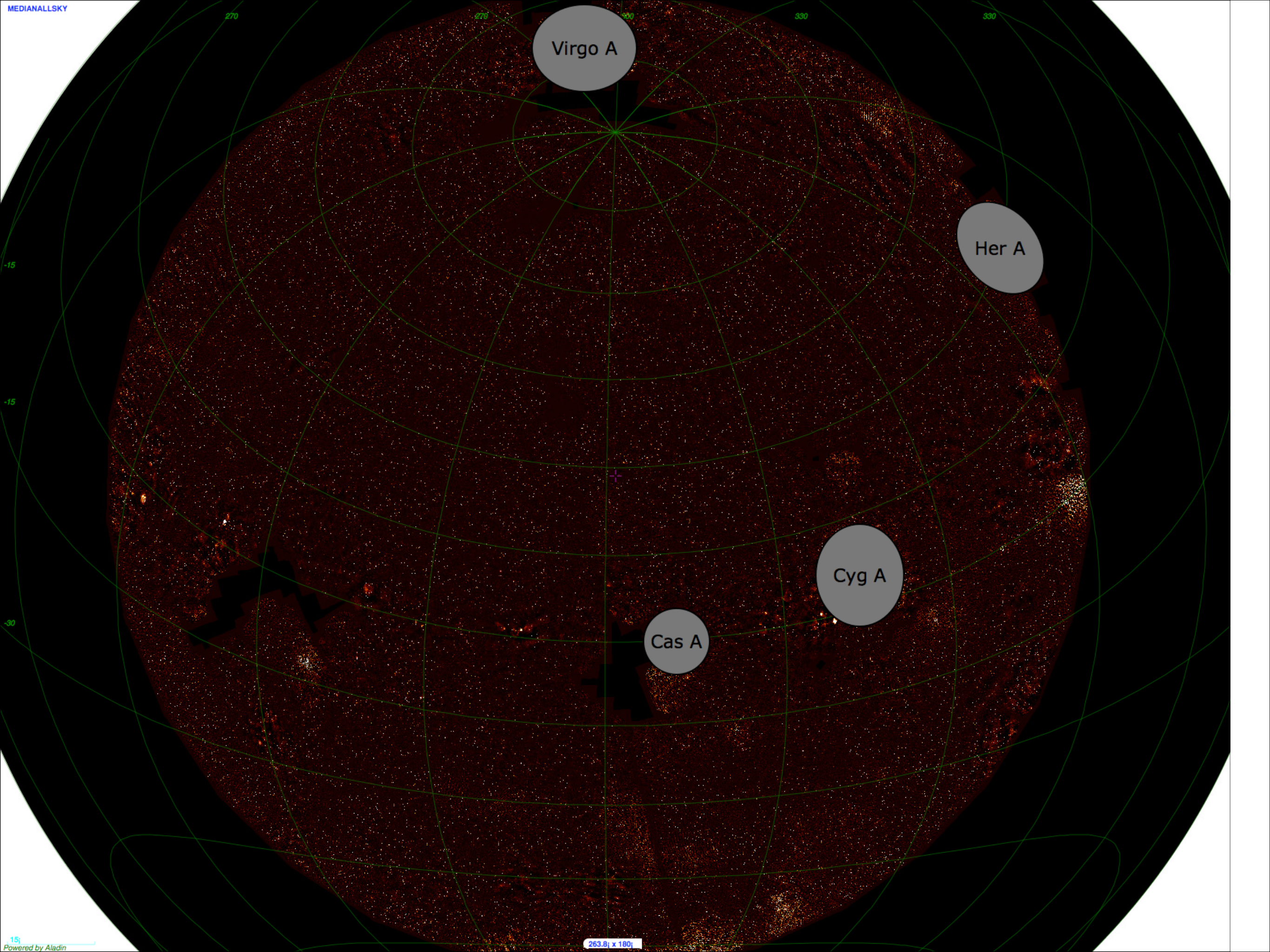
Update

George Heald (MSSS Project Leader)
(on behalf of the MSSS Team)
LSM, 27/11/2013



- MSSS-HBA started in February, and is almost 95% complete!





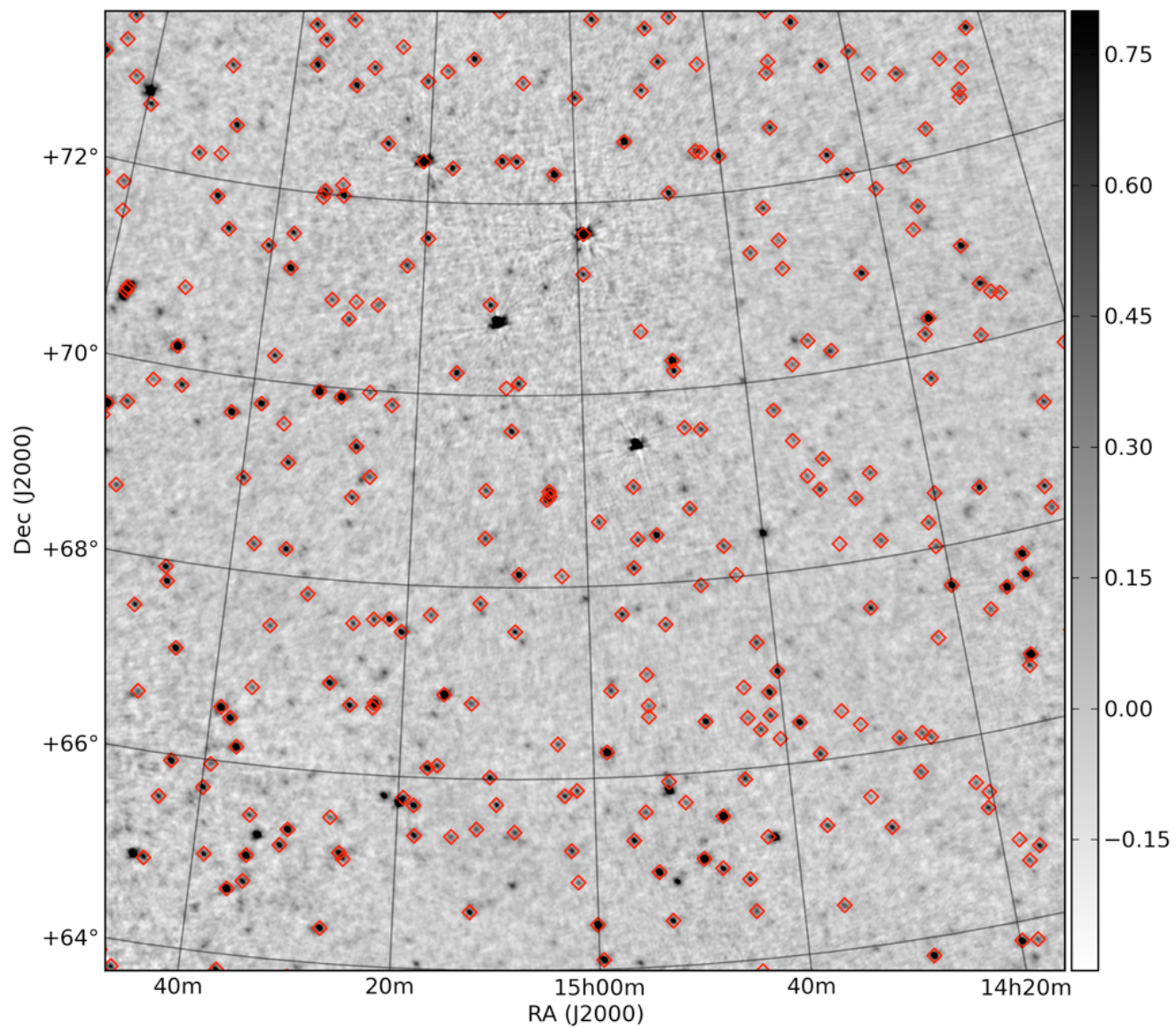
Virgo A

Her A

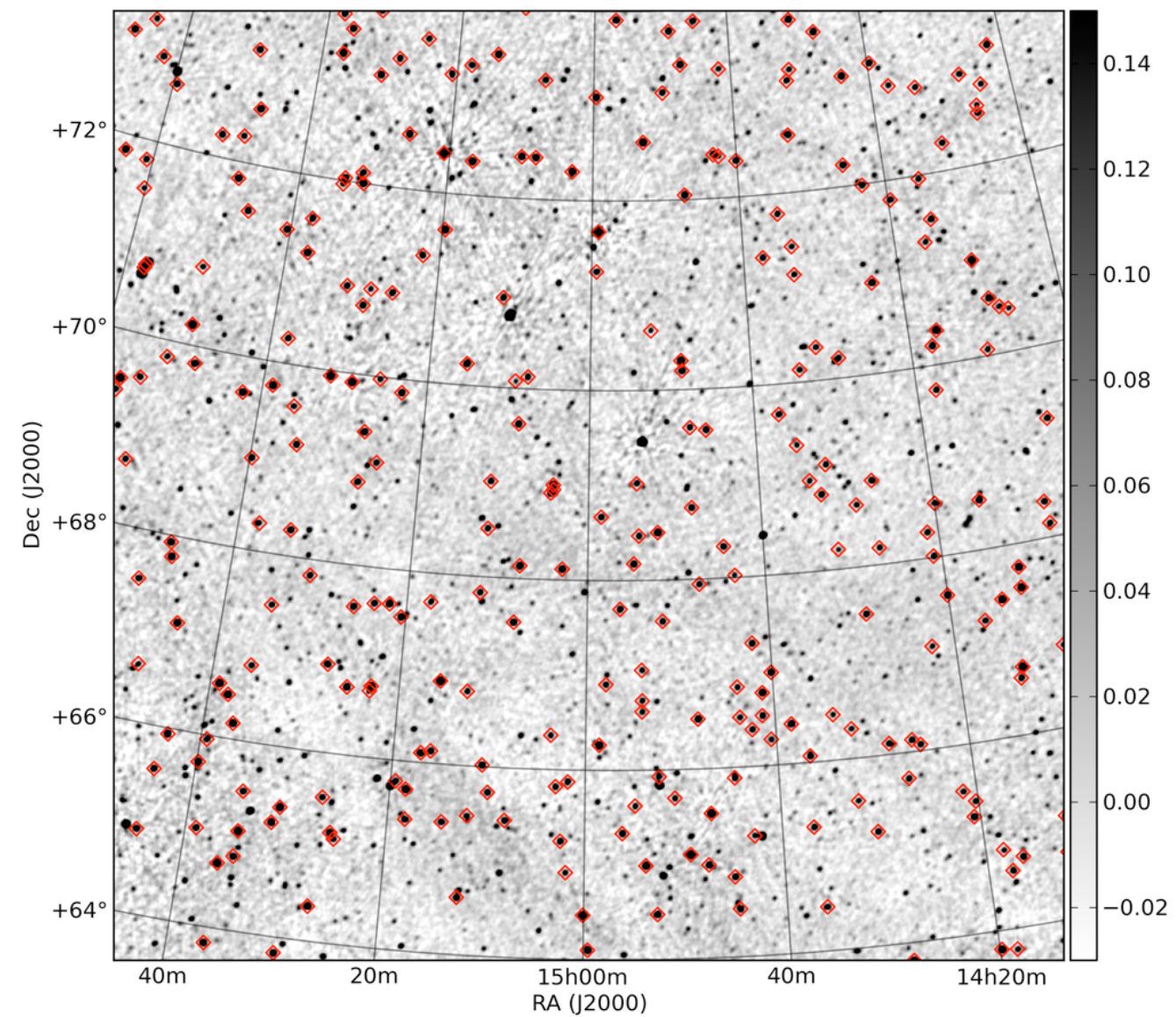
Cyg A

Cas A

- Finalized catalog creation steps during recent source finder meeting in Nice



MVF LBA



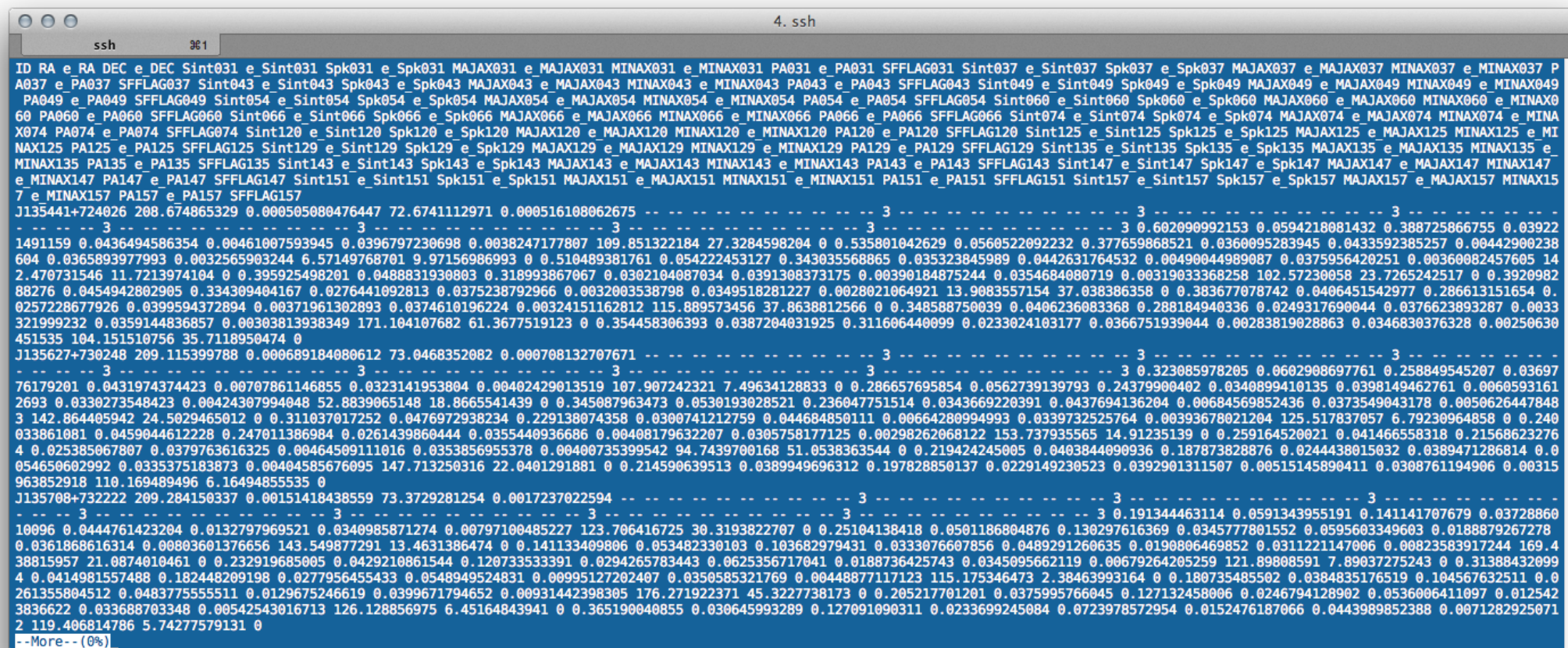
MVF HBA

- Catalog to have 48 columns for pt sources; 144 for extended sources

ID	Source ID, formed as <i>Jhhmmss+ddmmss</i> using the IAU convention.
RA	Source J2000 Right Ascension, in decimal degrees.
DEC	Source J2000 Declination, in decimal degrees.
e_RA	Error on source J2000 Right Ascension, in seconds of time.
e_DEC	Error on source J2000 Declination, in arcseconds.
SFFLAG nnn	Flag indicating that the source was only identified in one of the two source finders. (0 means it was detected in both; 1 means it was detected only in PyBDSM; 2 means only in PYSE.)
Sint nnn	Source (integrated? peak? both? TBD depending on SF results/comparison) flux at nnn MHz, in Jy.
e_Sint nnn	Error on source flux at nnn MHz, in Jy.

Sp kn	Peak
e_Sp kn	error
SLBA	LBA flux density (from combined map). Effective frequency is nnn MHz.
e_SLBA	Error on LBA flux density.
SHBA	HBA flux density (from combined map). Effective frequency is nnn MHz.
e_SHBA	Error on HBA flux density.
SPIX	Spectral index, A_1 in Equation 3.
e_SPIX	Error on spectral index.
SCURV	Spectral curvature, A_2 in Equation 3.
e_SCURV	Error on spectral curvature.
SPFLAG(L/H?)	Number of bands detected / indication of how the spectral index was calculated (incl how many fit terms).
A set of parameters that are only included for the extended source catalogue:	
MAJAX nnn	Major axis of fitted ellipse at nnn MHz.
MINAX nnn	Minor axis of fitted ellipse at nnn MHz.
PA nnn	Position angle of fitted ellipse at nnn MHz, in degrees.
e_MAJAX nnn	Error on major axis.
e_MINAX nnn	Error on minor axis.
e_PA nnn	Error on position angle.

- Basic strategy combines the strengths of PyBDSM and PySE
- Script developed by Rene Breton
- For MVF, there are 861 unique sources
 - (extrapolation suggests 100,000+ sources in final catalog)
 - MVF catalog text file is 1.3 MB, final one might be ~250 MB
 - VOTable (xml format) approx. 2.5 times larger



```
ssh 361
ID RA e_RA DEC e_DEC Sint031 e_Sint031 Spk031 e_Spk031 MAJAX031 e_MAJAX031 MINAX031 e_MINAX031 PA031 e_PA031 SFFLAG031 Sint037 e_Sint037 Spk037 e_Spk037 MAJAX037 e_MAJAX037 MINAX037 e_MINAX037 P
A037 e_PA037 SFFLAG037 Sint043 e_Sint043 Spk043 e_Spk043 MAJAX043 e_MAJAX043 MINAX043 e_MINAX043 PA043 e_PA043 SFFLAG043 Sint049 e_Sint049 Spk049 e_Spk049 MAJAX049 e_MAJAX049 MINAX049 e_MINAX049
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2 119.406814786 5.74277579131 0
--More--(0%)
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- Final preparation work now in progress, expect draft very soon

