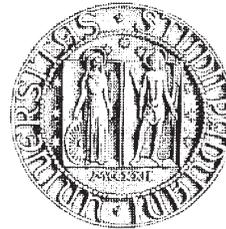


ELAIS 15 μm Northern Fields

A Status Report on Data Reduction with the LARI Method



Mattia Vaccari

Department of Astronomy and CISAS “G. Colombo”, University of Padova

vaccari@pd.astro.it

<http://hal.pd.astro.it/~mattia>

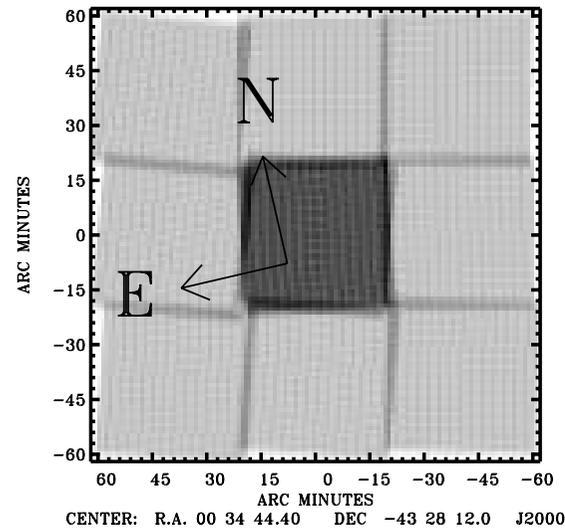
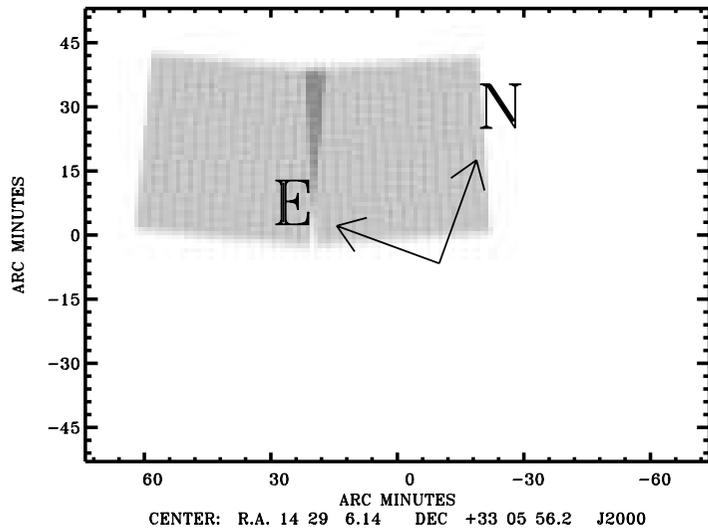
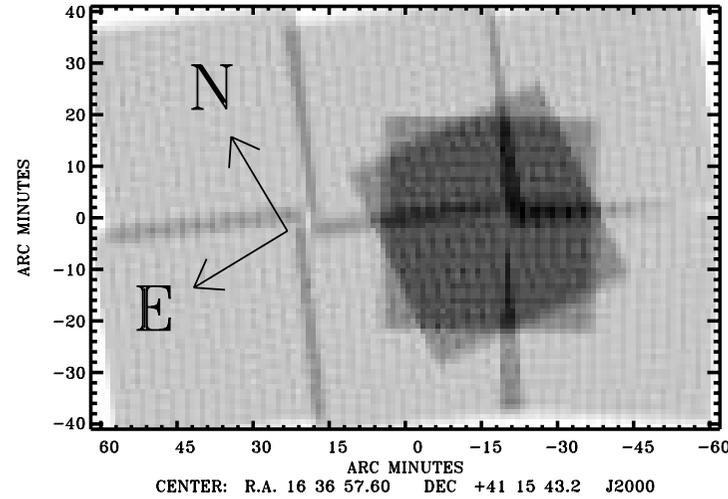
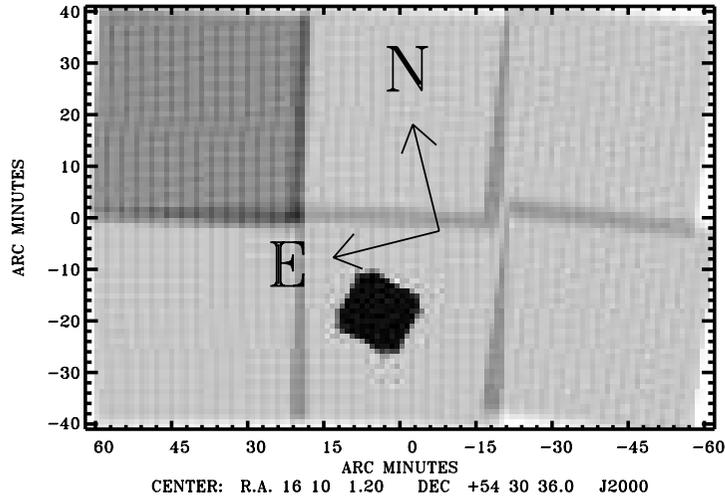
Luca Angeretti Institute of Radioastronomy, Bologna

Carlo Lari Institute of Radioastronomy, Bologna

Oliver Prouton Department of Astronomy, Padova

POE Network Meeting

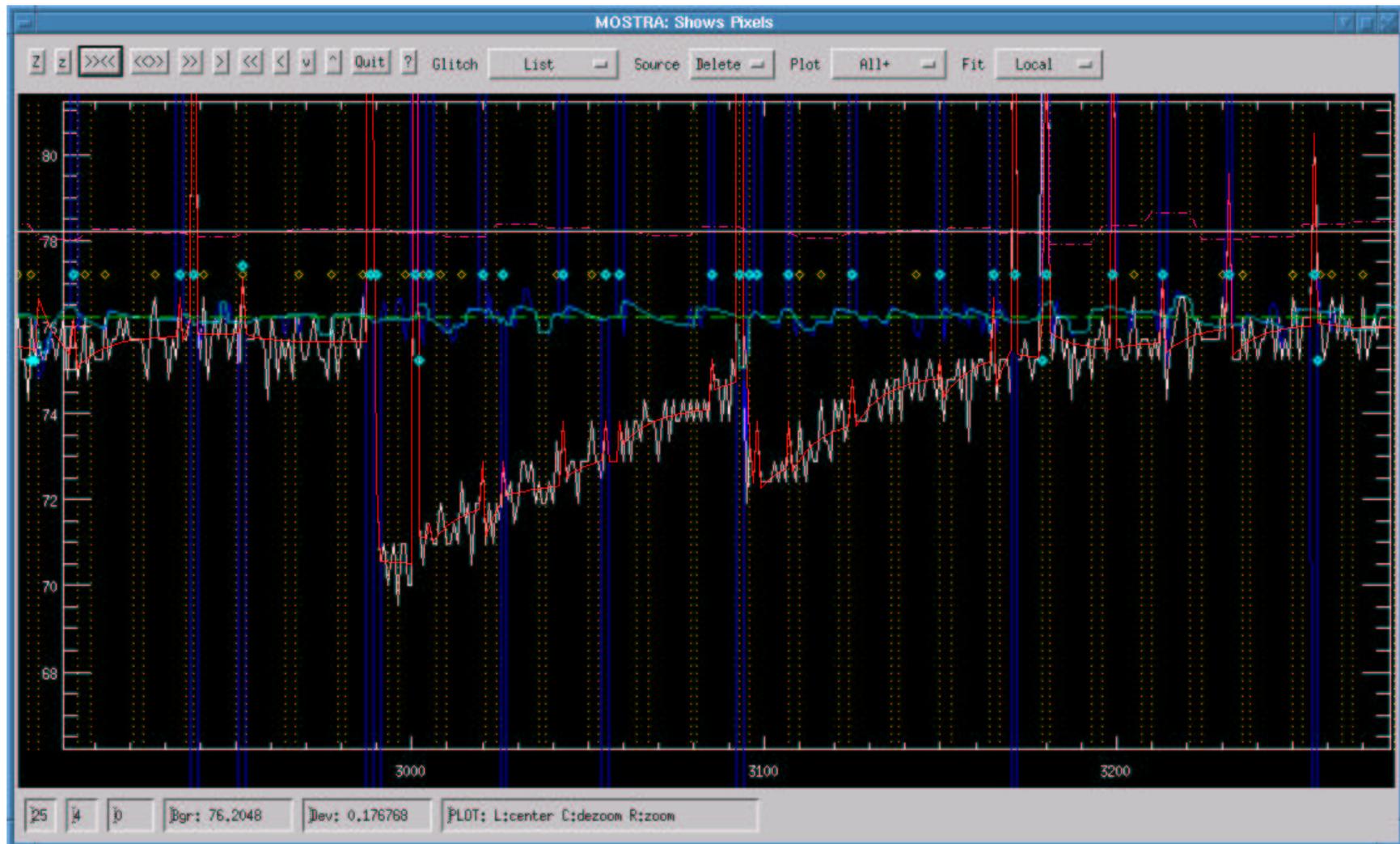
ICSTM, London, 25-26 September 2001

ELAIS CAM 15 μm Dataset

| | |
|-------|-----------------------|
| S1 | 4.9 deg ² |
| S2 | 0.15 deg ² |
| N1 | 3.25 deg ² |
| N2 | 3.25 deg ² |
| N3 | 1.1 deg ² |
| Total | 13 deg ² |

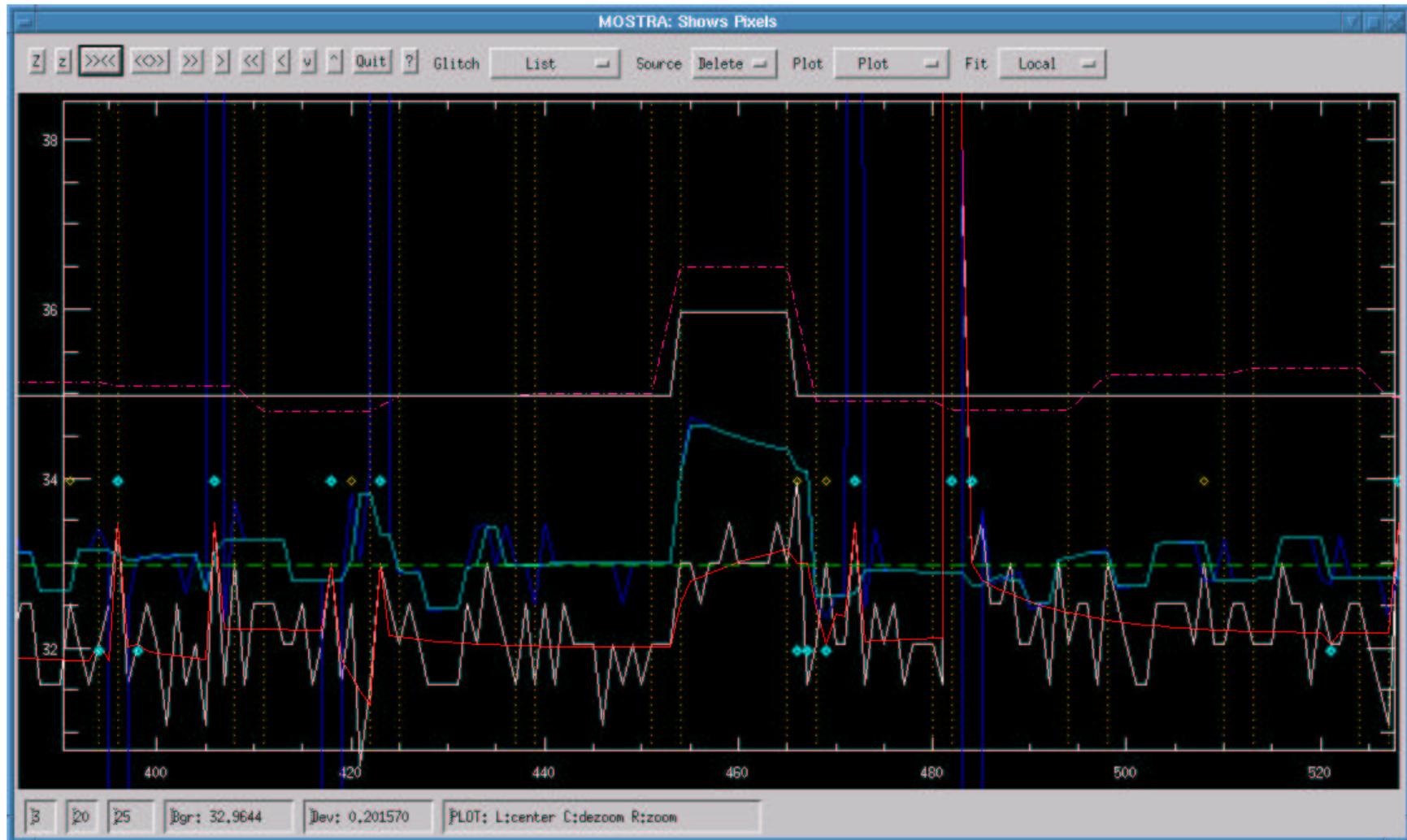
X \Rightarrow Radio coverage of selected regions

The LARI Method (1)



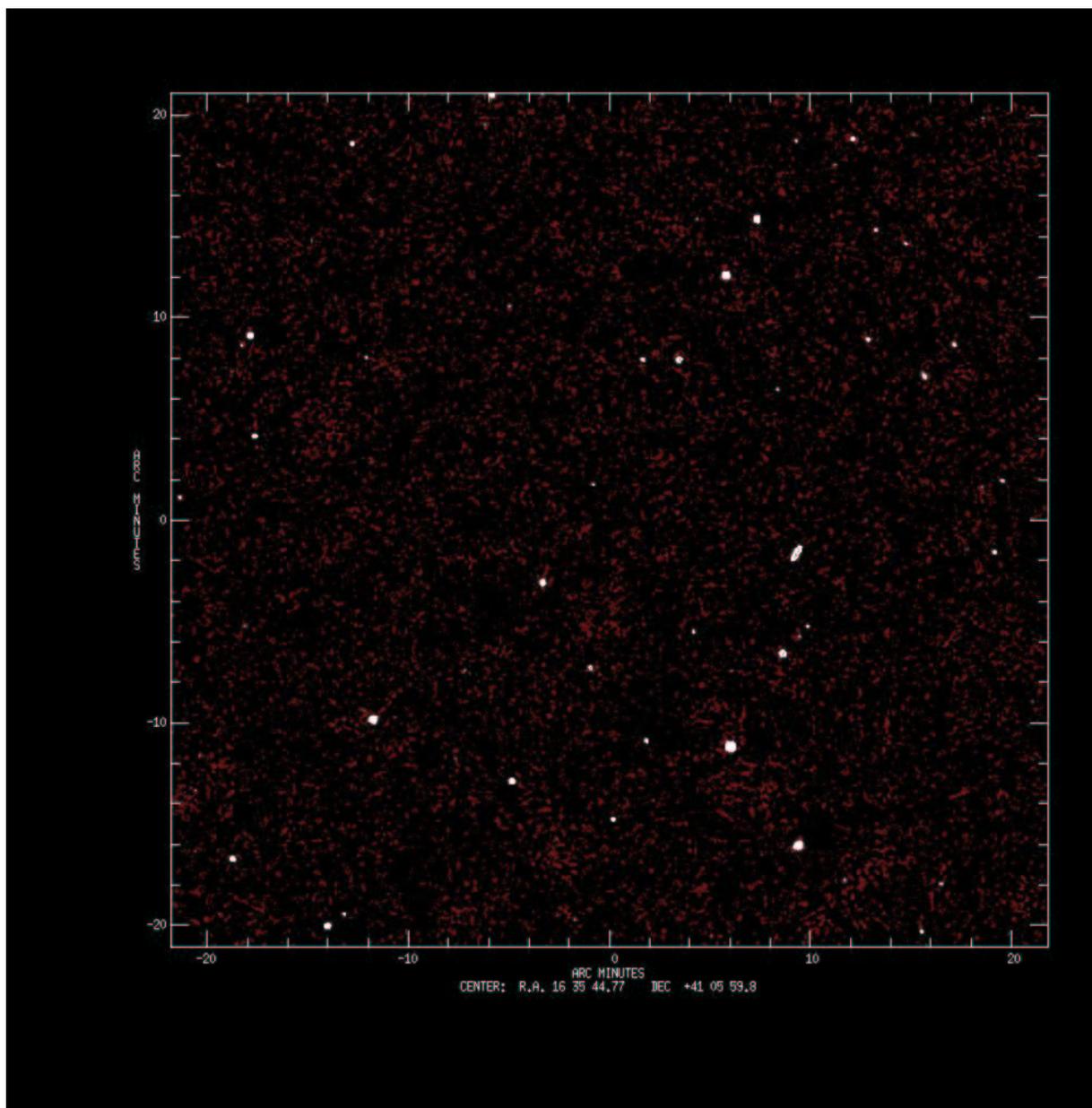
- Cosmic ray hits identification and background determination
- Cosmic ray hits and transient behaviour modelling
- Source detection and autosimulation of detected source fluxes

The LARI Method (2)



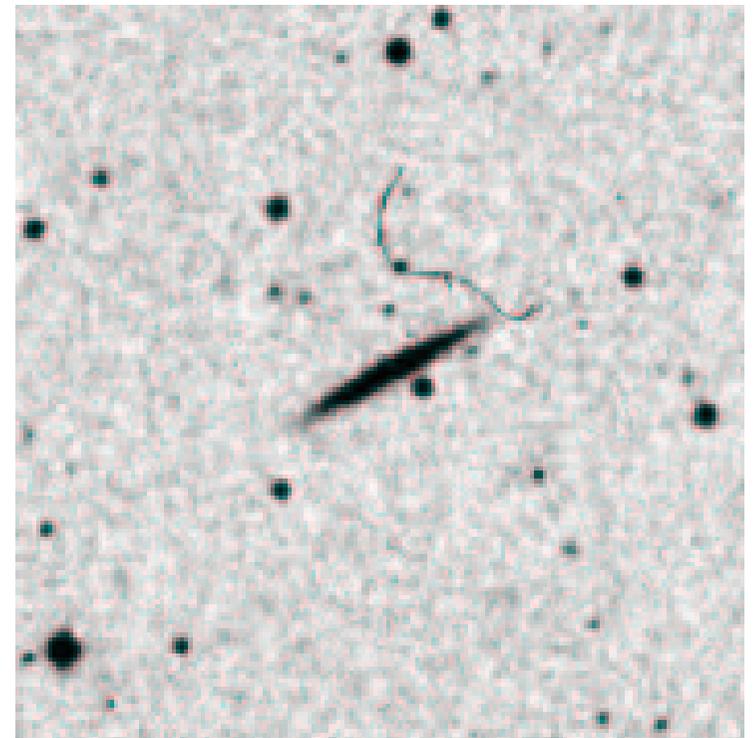
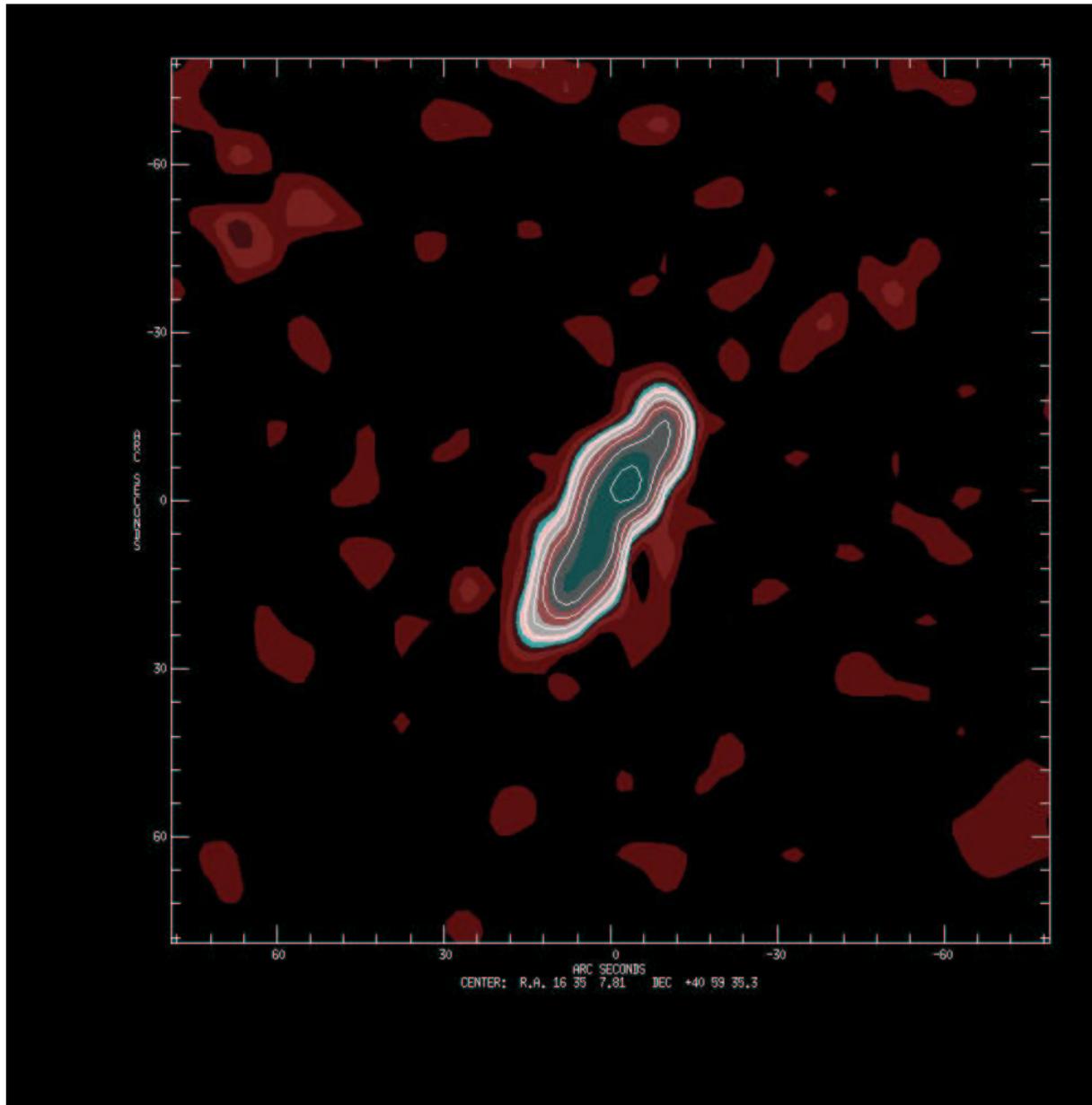
- Home-made IDL routines and (at last!) a widget-based graphical interface
- Different stages of interactive analysis are necessary
- Minor modifications since S1 reduction (Lari et al. 2001)

Maps

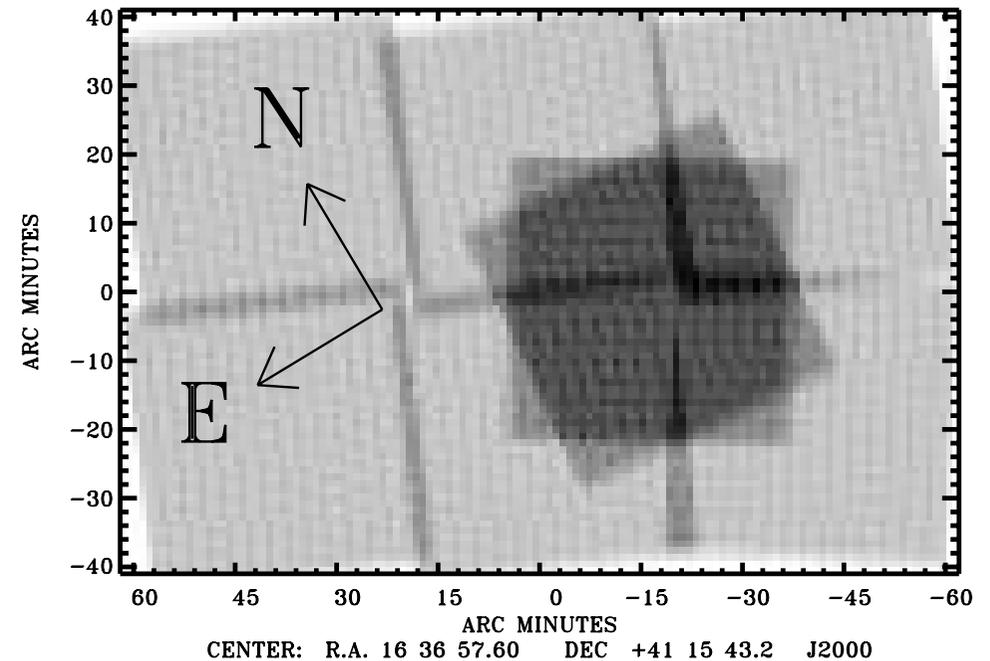
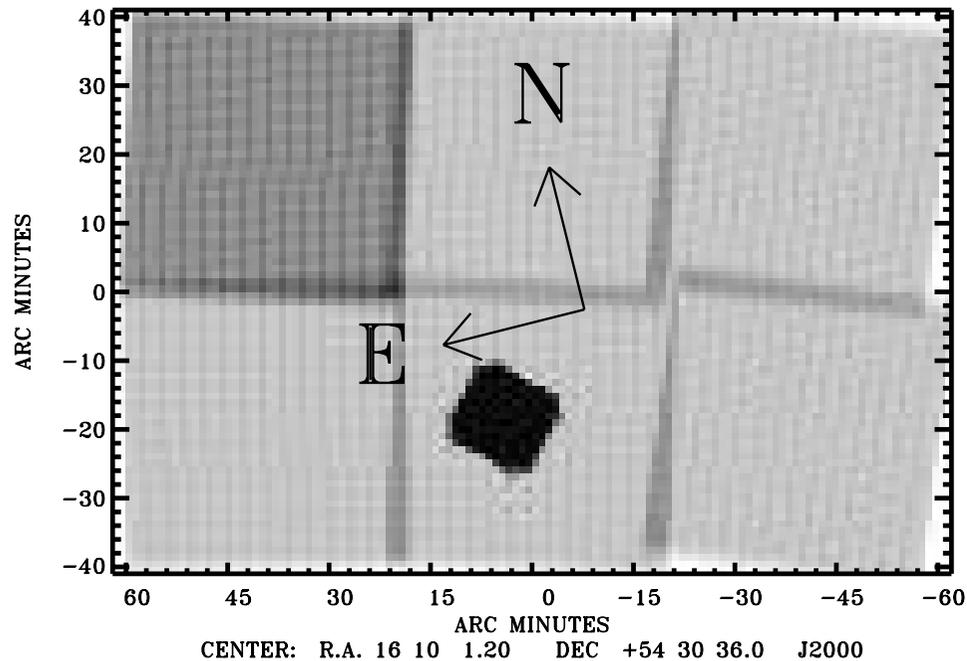


- Single raster map $\simeq 40' \times 40'$
- $\simeq 60$ sources with $S/N > 5$ per raster
- New sources and better reliability expected from superposition

Individual Sources

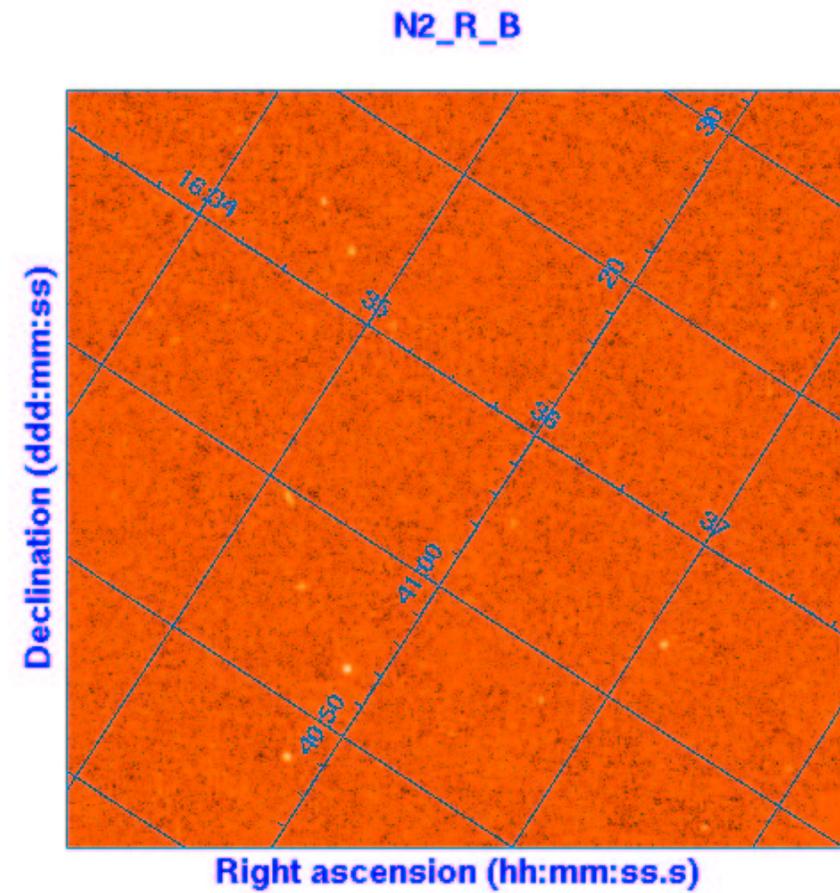
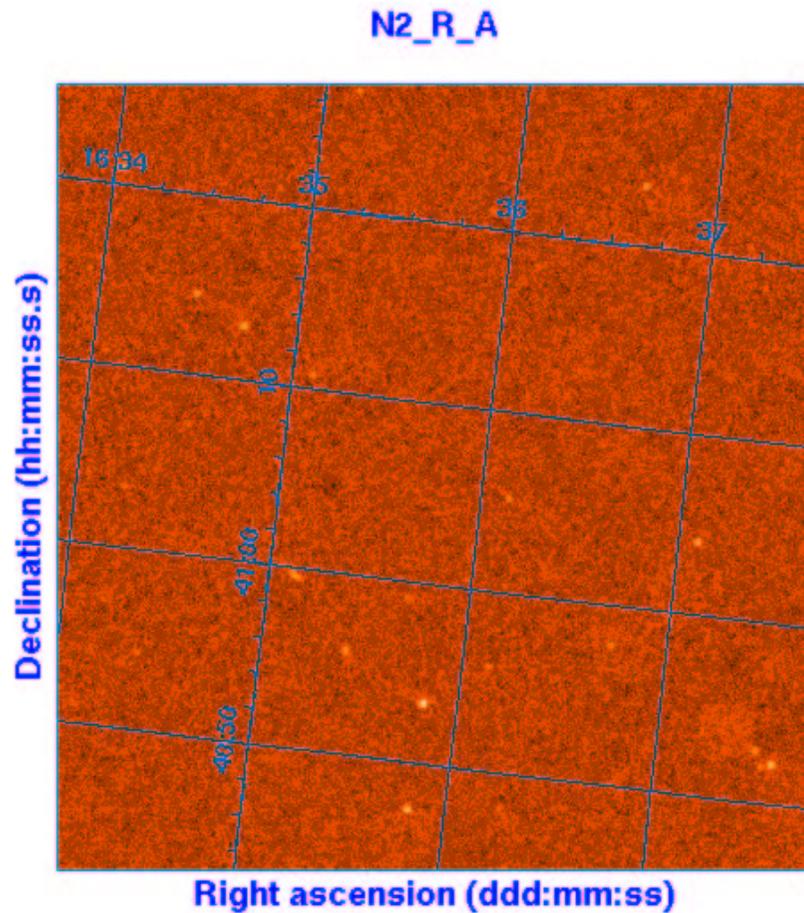


Status of Northern Data Reduction



| Status | N1 | N2 |
|--------------|--------------------------|-----------------------------------|
| ~ Completed | N1_2_A | N2_R_A N2_R_B N2_2 N2_3 N2_4 N2_5 |
| Advanced | N1_2_B | N2_6 |
| Intermediate | — | N2_1 |
| Initial | N1_1 N1_3 N1_4 N1_5 N1_6 | — |

What's Next?



More work on repeated regions...

Results

- N2 data reduction is almost complete!
- Final source lists for 6/8 N2 rasters and 1/7 N1 rasters
- Fluxes await final checks

Future Work

- Data reduction completion
- On to N1!
- Stars' identification for calibration
- More work on repeated regions
- Catalogue finalization