



The LOFAR Surveys use-case

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LOFAR surveys are gathering over 20,000hrs of data to:

- Map entire northern sky with unpredented resolution and sensitivty (factor of 10 in both)
- Detecting and characterising 15 million new astronomical sources of radio emission
- Already over 150 publications at a rate of 50 per year



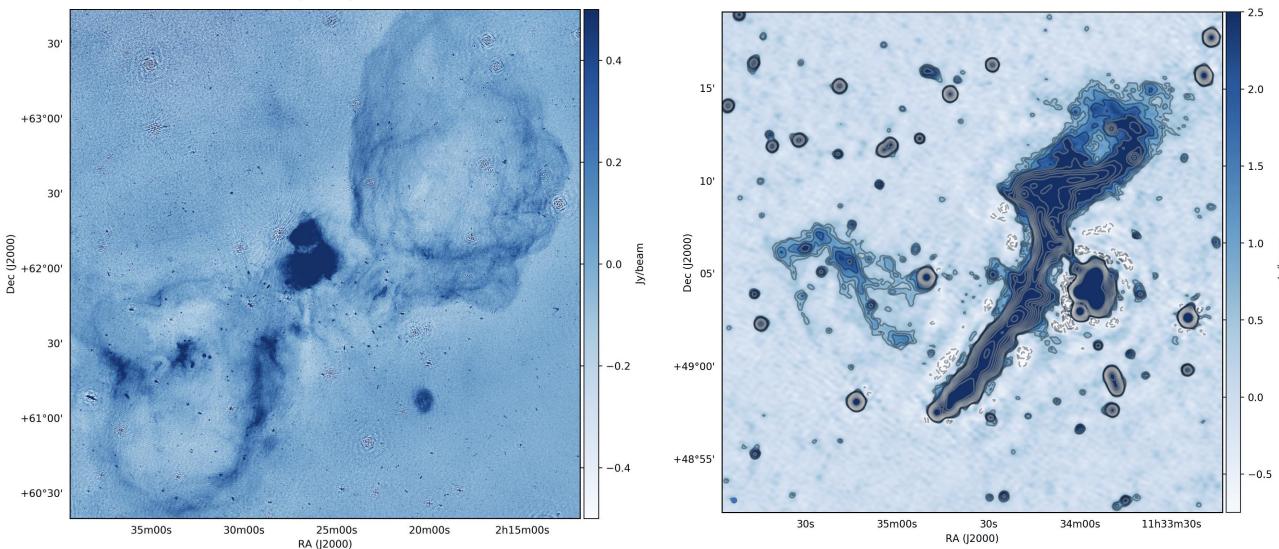


Difficulties are:

- LOFAR data requires extensive calibration (up to 250,000 core hours for 4hrs of data)
- LOFAR raw products are > 20PB and fully processed products remain > 1PB.
- Post processing of calibrated data facilitates new science

1989km (Full international array)





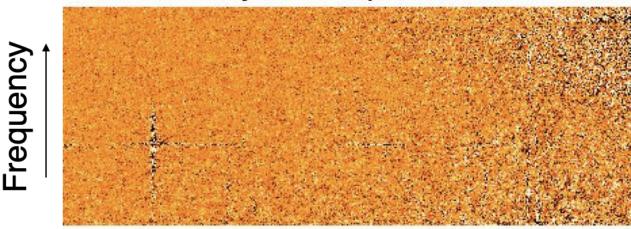
High science output because so many spectacular objects that have not previously been studied

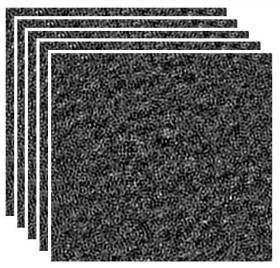


Dynamic spectra

Data sharing allows us to:

- Make use of computational facilities at many institutes for initial processing
- Allow public, or collaboration, access to enable any reprocessing of the data to get a huge variety of products tailored to some science aim.





Polarisation cubes



Refined calibration

