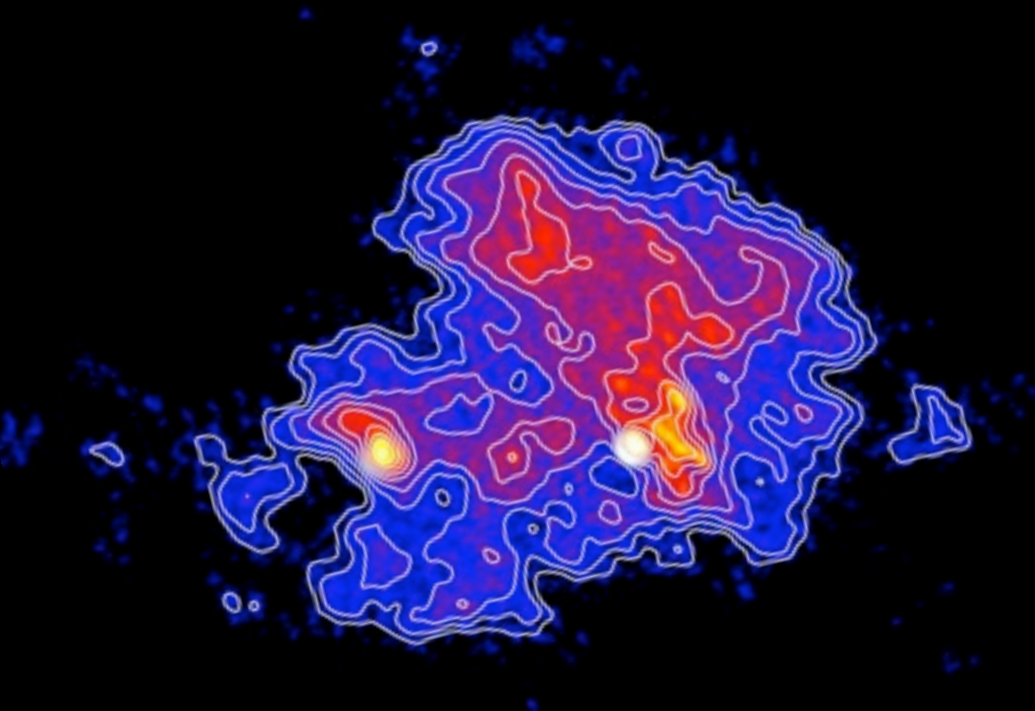
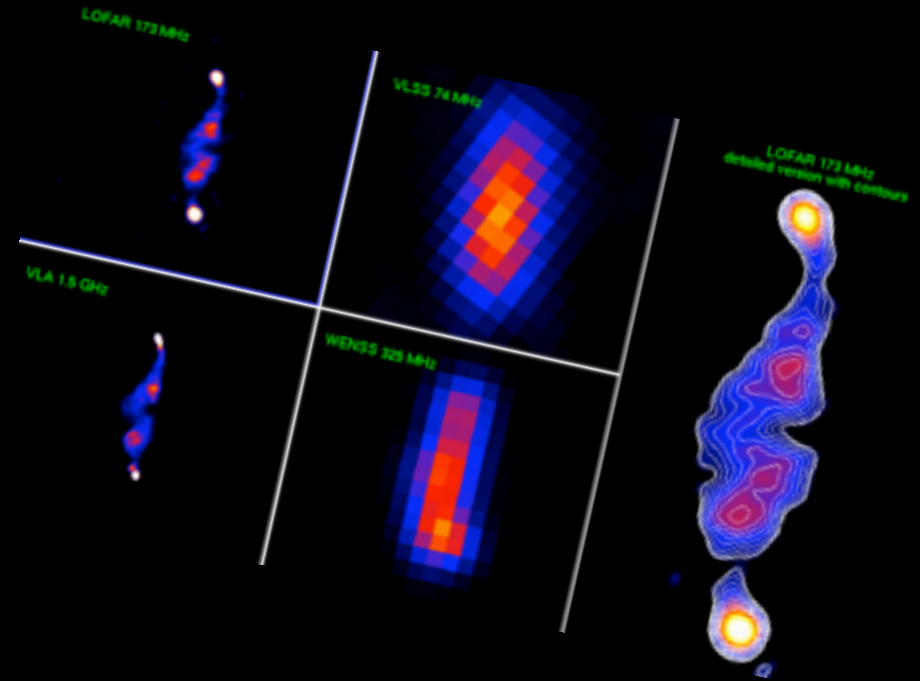
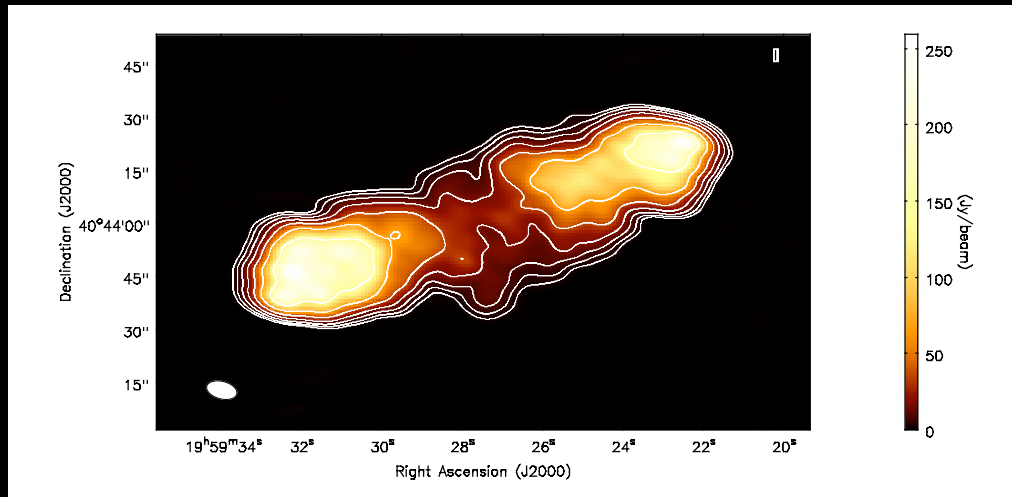


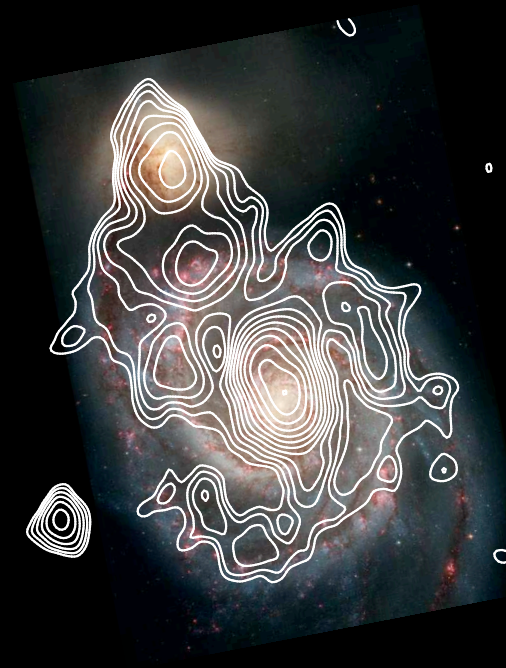
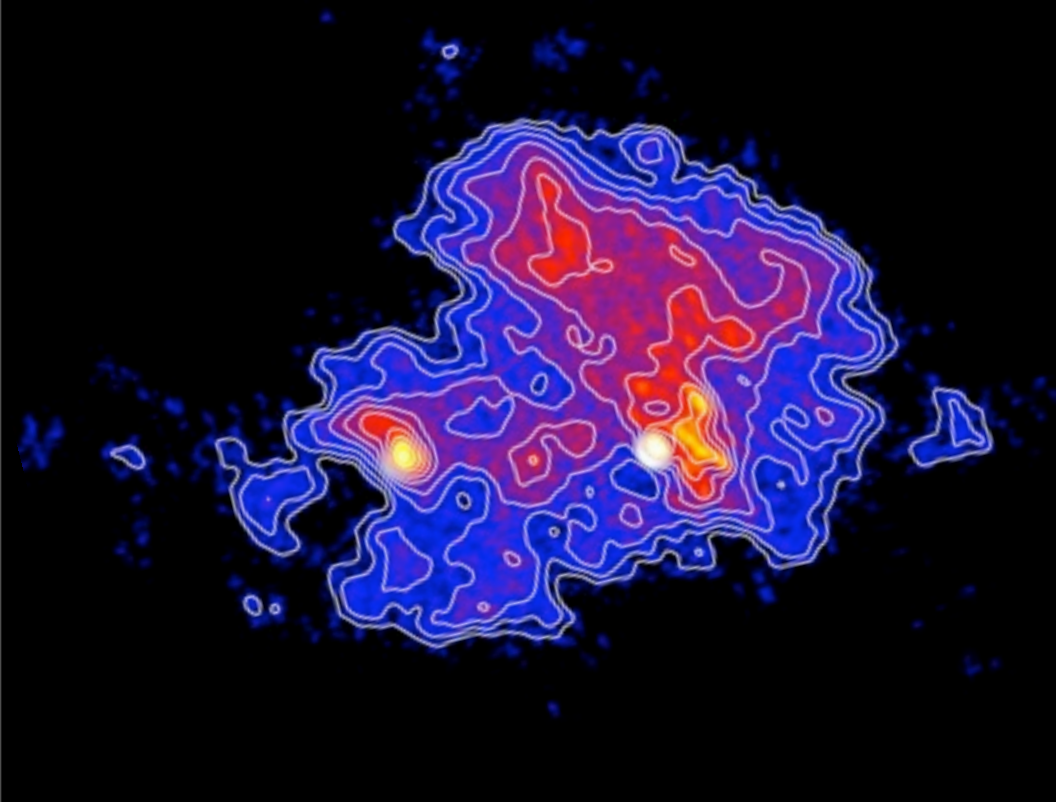
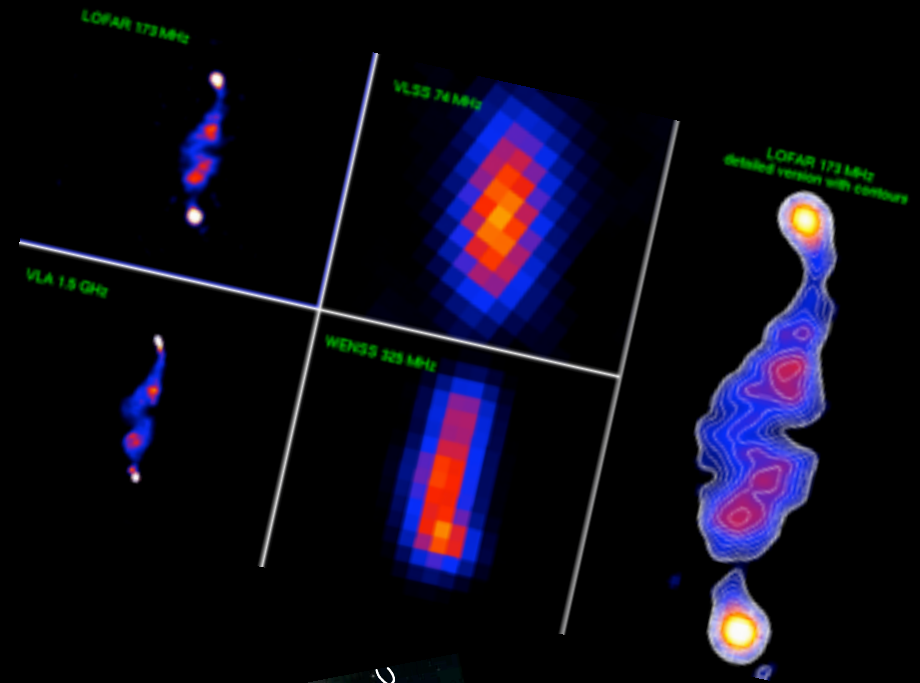
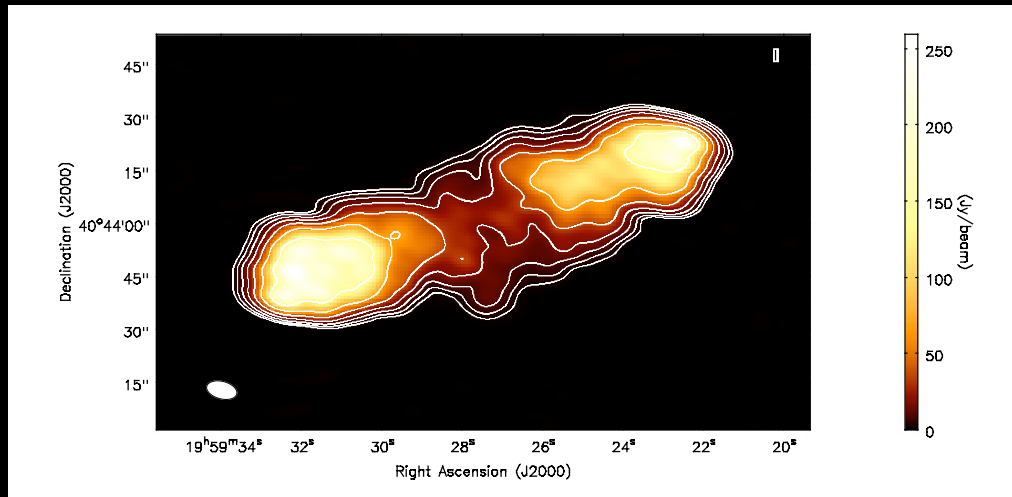
Getting your hands on LOFAR data

John McKean (ASTRON)

Recent images with LOFAR

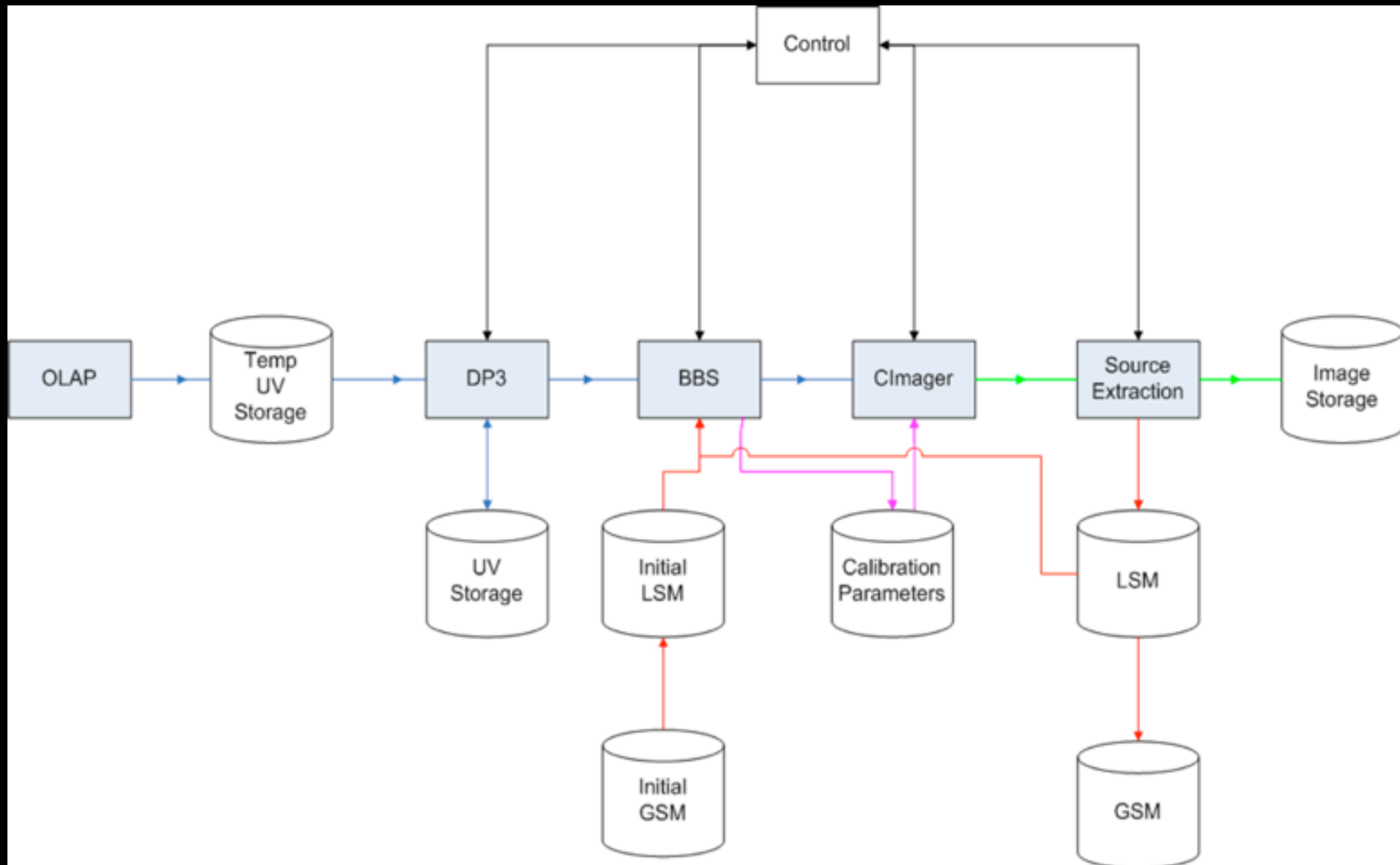


Recent images with LOFAR

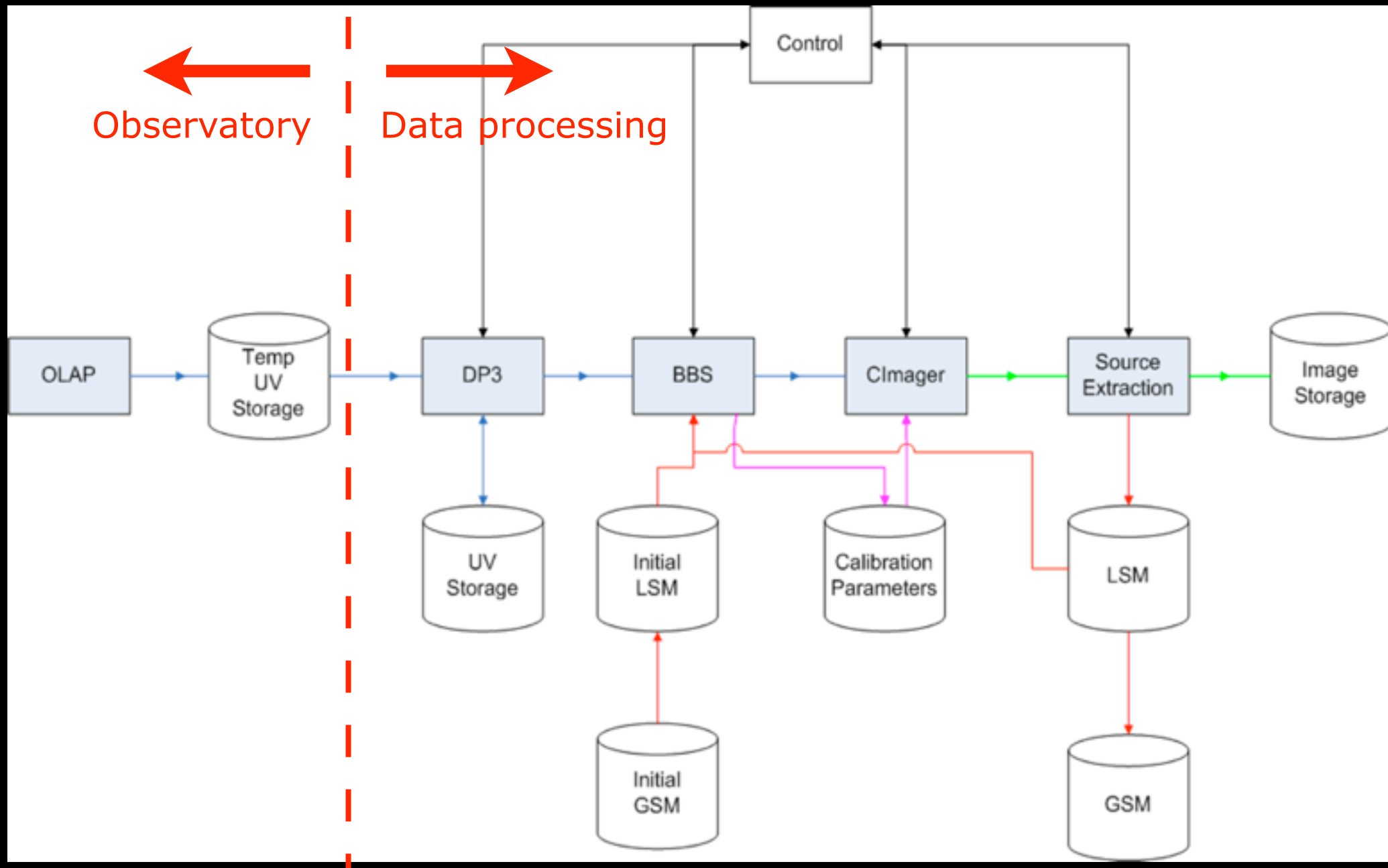


| | Monday, October 11 | Tuesday, October 12 | Wednesday, October 13 | Thursday, October 14 | Friday, October 15 |
|----------|-----------------------------|-----------------------------|-----------------------|-----------------------------|-----------------------------|
| 9:30 AM | Welcome (Wise) | ASTRON | Polarization | Dynamic Spectra with LOFAR | Particle Physics with LOFAR |
| | Intro. to Low Frequency | Plenary | (Haverkorn) | (Griessmeier) | (James) |
| 10:00 AM | Radio Astronomy | Session | | | |
| | (Heald) | | Q&A | Q&A | Q&A |
| 10:30 AM | Coffee Break | | Coffee Break | Coffee Break | Coffee Break |
| | | | | | |
| 11:00 AM | LOFAR Overview | Correlator and | Ionospheric Effects | VLBI with LOFAR | High Time Resolution |
| | (Wise) | Online Processing | (van Bemmell) | (Anderson) | with LOFAR |
| 11:30 AM | | (Romein) | | | (Hessels) |
| | Q&A | Q&A | Q&A | Q&A | Q&A |
| 12:00 PM | LOFAR Station Processing | Introduction to | Wide-field Imaging | Observing with LOFAR | Observing Pulsars |
| | (Norden) | Calibration | (Nijboer) | (Polatidis) | with LOFAR |
| 12:30 PM | | (de Bruyn) | | | (Alexov) |
| | Q&A | Q&A | Q&A | Q&A | School Concludes (Wise) |
| 1:00 PM | | | | | |
| | Lunch | Lunch | Lunch | Lunch | Lunch |
| 1:30 PM | | | | | |
| | | | | | |
| 2:00 PM | RFI and Compression | Calibrating LOFAR Data | Hands-on Exercises | Intro. to Hands-on Sessions | |
| | (Rafferty) | (BBS - van Zwieten) | | (McKean) | |
| 2:30 PM | | (CASA - TBD) | | | |
| | Q&A | Q&A | End of Day | Hands-on Exercises | |
| 3:00 PM | Intro. to Hands-on Sessions | Intro. to Hands-on Sessions | | | Hands-on Exercises |
| | (McKean) | (McKean) | | | |
| 3:30 PM | | | Excursion | | |
| | | | to | | |
| 4:00 PM | Hands-on Exercises | Hands-on Exercises | LOFAR | ASTRON Colloquium | |
| | | | Core | | |
| 4:30 PM | | | (Norden) | Philippe Zarka | |
| | | | | "Planetary Science with | |
| 5:00 PM | End of Day | End of Day | | LOFAR and more" | |
| | | | | + | End of Day |
| 5:30 PM | Borrel | | | Colloquium | |
| | | | | Borrel | |
| 6:00 PM | | | | | |
| | | | | | |
| 6:30 PM | | | Workshop | | |
| | | | Dinner | | |
| 7:00 PM | | | | | |
| | | | | | |
| 7:30 PM | | | | | |
| | | | | | |
| 8:00 PM | | | | | |

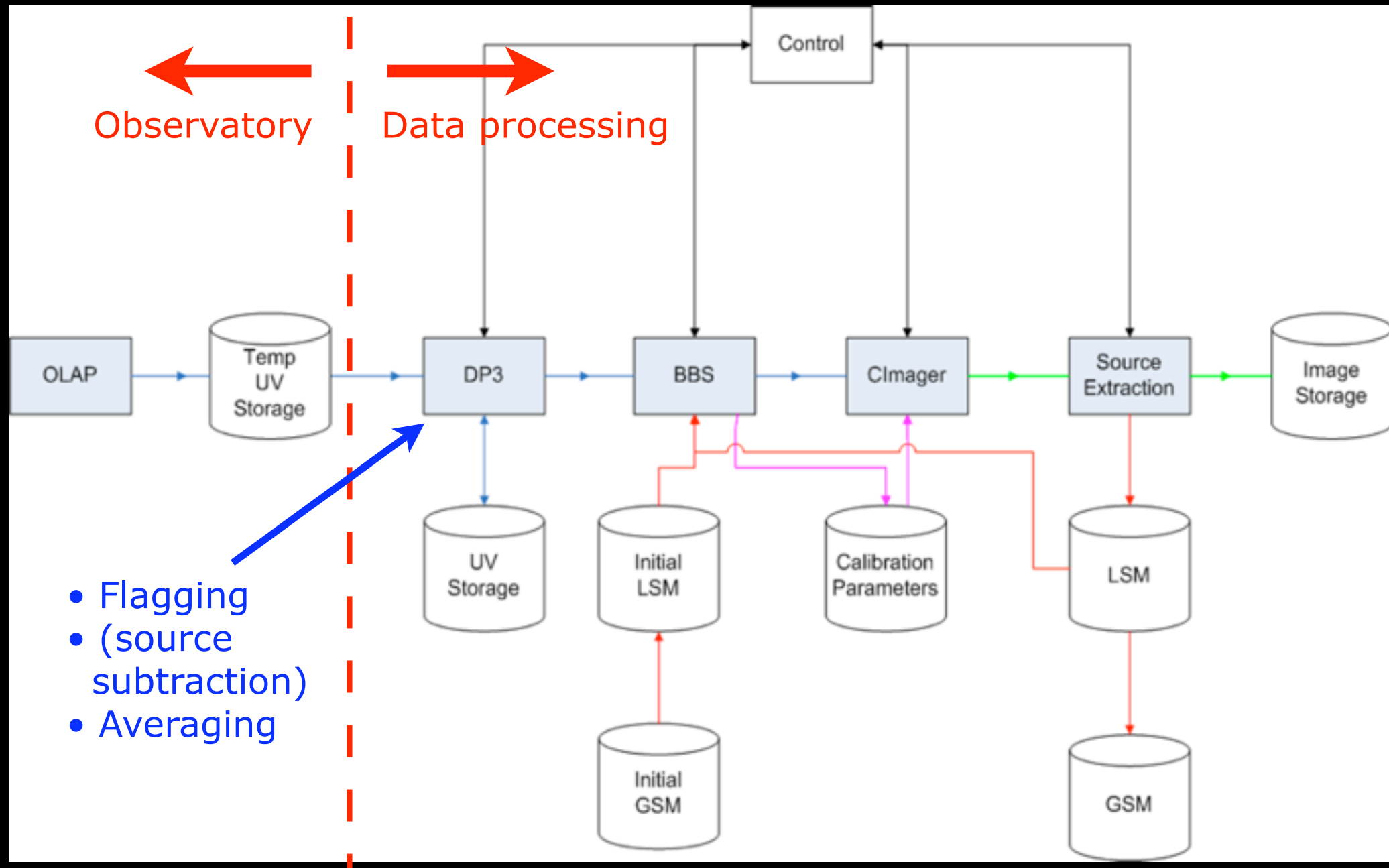
LOFAR imaging pipeline

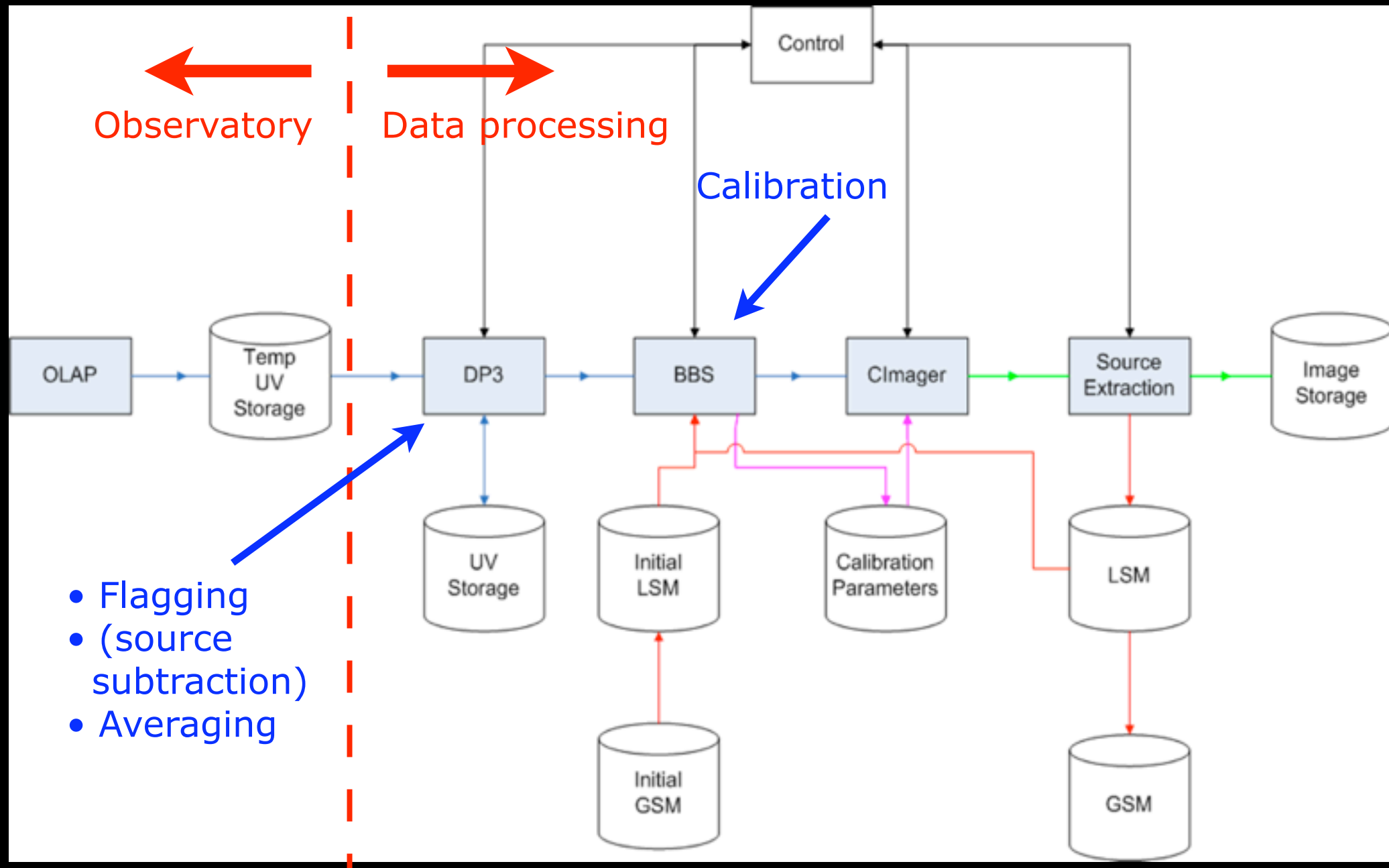


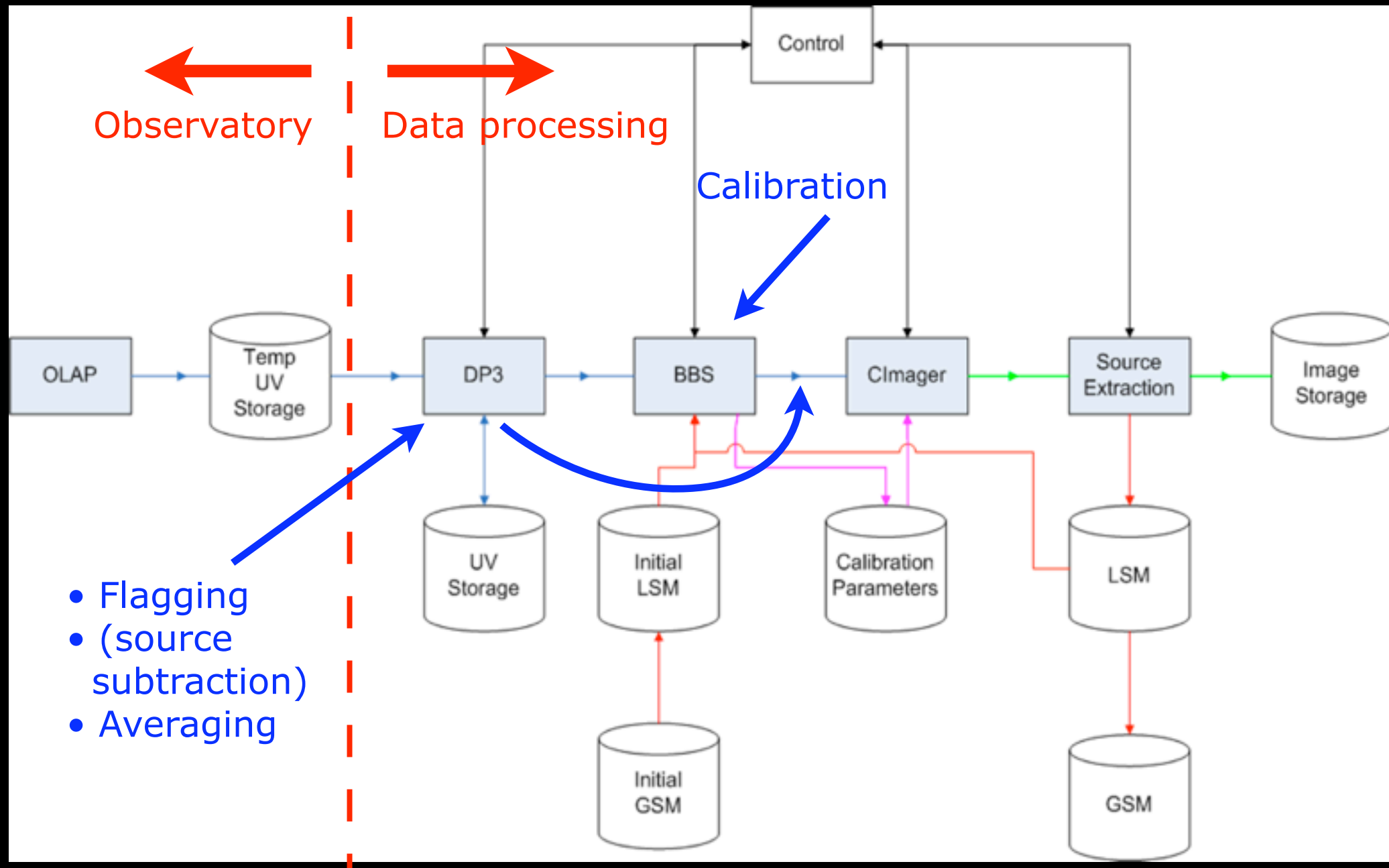
LOFAR imaging pipeline

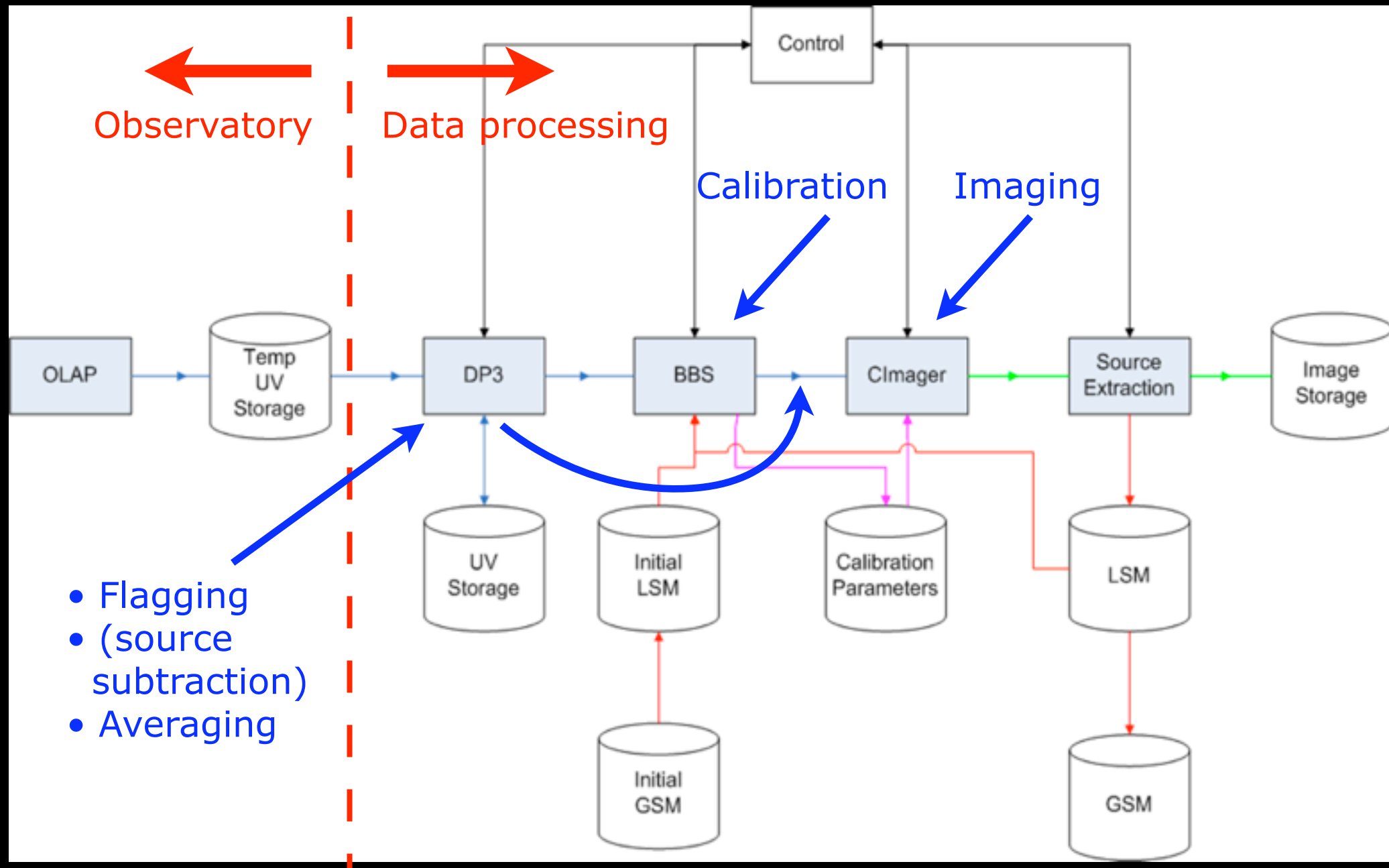


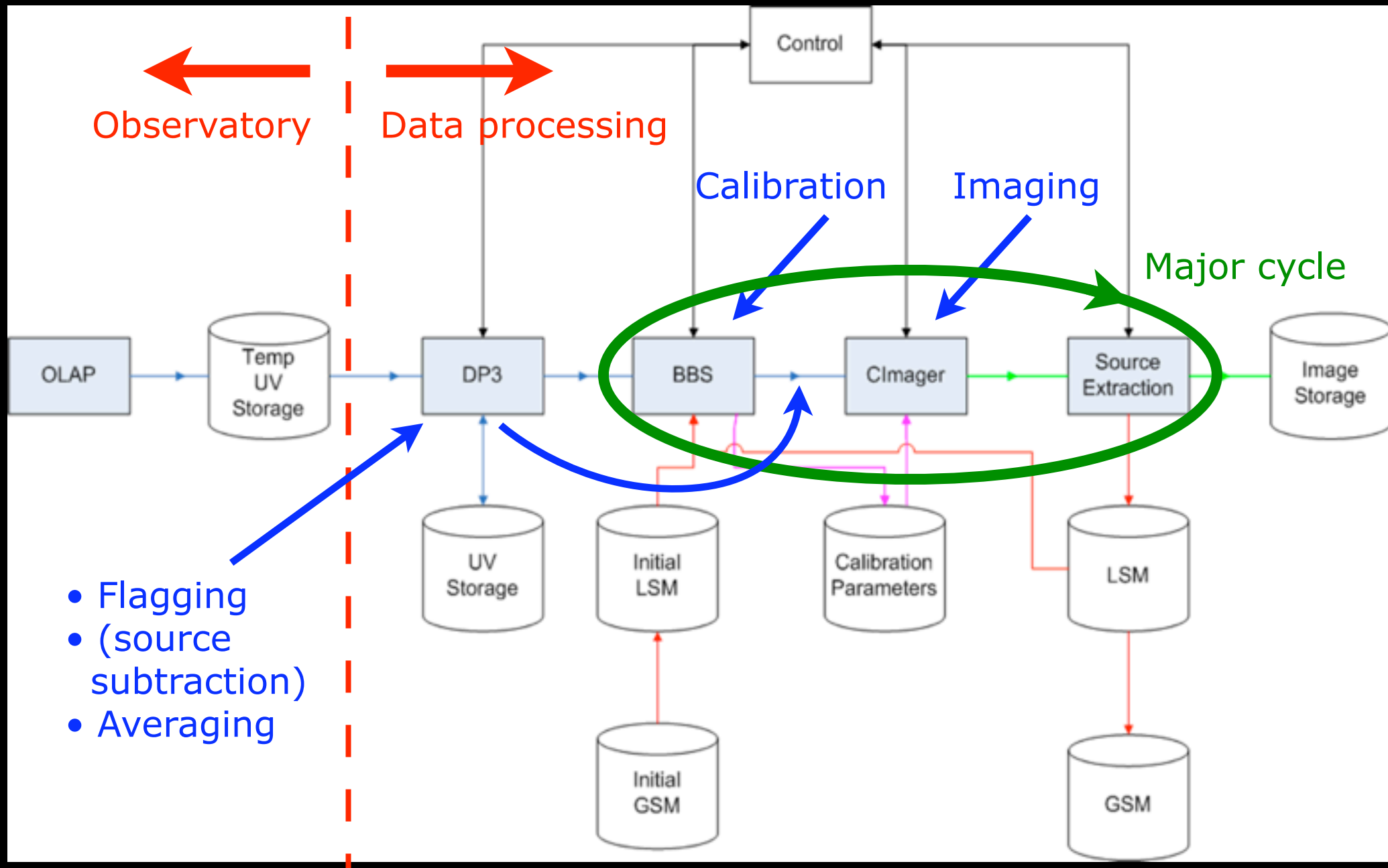
LOFAR imaging pipeline









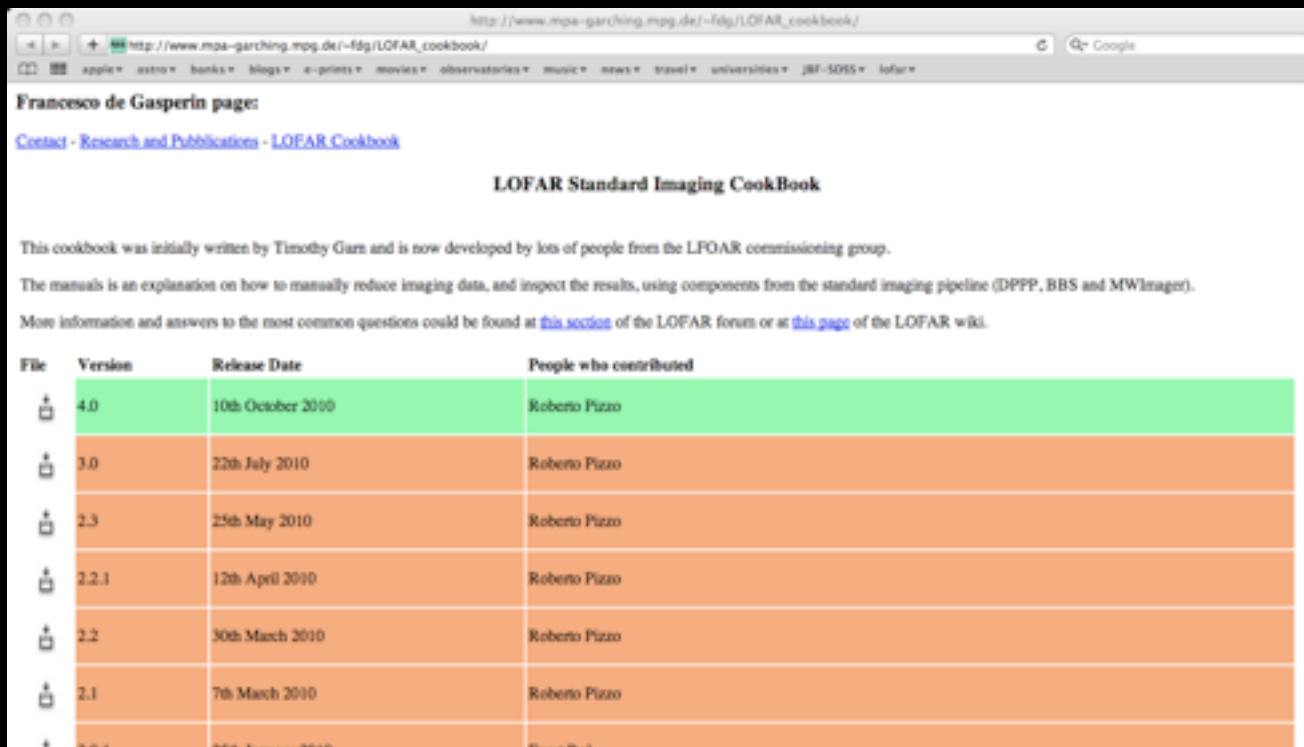


- The aim of the exercises is to give YOU experience to reduce LOFAR data on your own

ASK QUESTIONS

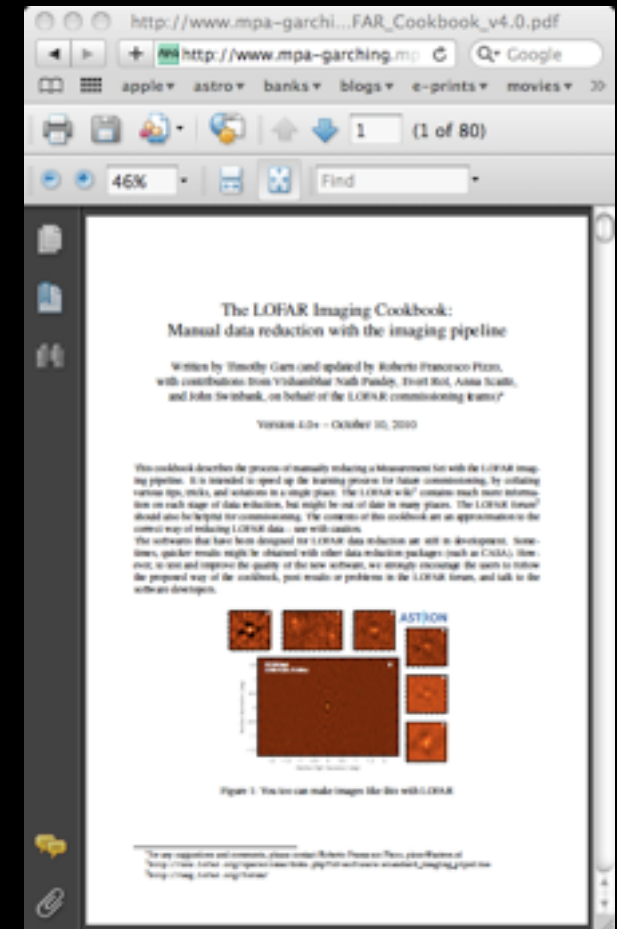
- MONDAY: Logging into the cluster, running NDPPP.
- TUESDAY: Reducing Cygnus A (HBA) data with CASA.
- WEDNESDAY: Reducing Cygnus A (HBA) data with CASA, Ionospheric modeling (some knowledge of CASA), RM synthesis tutorial (limited to 12 people).
- THURSDAY: Wide field imaging of M51 field, continuation of earlier exercise, BBS tutorial.
- FRIDAY: Extra time to continue exercises.
- Tutorials will take place in the Colloquium, Hooghoudt, Muller Rooms.

- Work in pairs or threes (help each other out; learn by doing).
- The cluster login account is temporary for the week.
- All accounts and data will be deleted at the end of the week.
- Resources: The LOFAR Cookbook



The screenshot shows the website for the LOFAR Standard Imaging Cookbook. It includes a navigation bar with links like 'Contact', 'Research and Publications', and 'LOFAR Cookbook'. The main heading is 'LOFAR Standard Imaging Cookbook'. Below this, there is a paragraph stating that the cookbook was initially written by Timothy Gars and is now developed by a group from the LOFAR commissioning group. It also mentions that the manual explains how to manually reduce imaging data using components from the standard imaging pipeline (DPPP, BBS and MWImager). A table lists the versions of the cookbook, their release dates, and the contributors.

| File | Version | Release Date | People who contributed |
|------|---------|-------------------|------------------------|
| | 4.0 | 10th October 2010 | Roberto Pizzo |
| | 3.0 | 22th July 2010 | Roberto Pizzo |
| | 2.3 | 25th May 2010 | Roberto Pizzo |
| | 2.2.1 | 12th April 2010 | Roberto Pizzo |
| | 2.2 | 30th March 2010 | Roberto Pizzo |
| | 2.1 | 7th March 2010 | Roberto Pizzo |
| | 2.0.1 | 24th January 2010 | Timothy Gars |



http://www.mpa-garching.mpg.de/~fdg/LOFAR_cookbook/

The station layout



<http://www.astron.nl/~heald/lofarStatusMap.html>

- Logging into the cluster.
- Running NDPMP.
- We will start together and then break up into smaller groups.

LETS GET STARTED

The Team: John McKean (AG), George Heald (AG), Michael Wise (AG), Roberto Pizzo (RO), Ashish Asgekar (RO), Rebecca McFadden (RO) + your lecturers

HAVE FUN AND ASK QUESTIONS