

Northstar update 25-6-2014



Netherlands Institute for Radio Astronomy

- Northstar July 2014

Cycle 3 / long-term proposals

envelope sheets / ddt

- Background for changes:

- improved summary for technical assessment/feasibility

- improved Observation setup

- NS output xml as intermediate step for setting up the instrument

- bug fixing

Thanks!

Mansura Habiba

Northstar update 25-6-2014



Netherlands Institute for Radio Astronomy

lofar.astron.nl/proposal

Welcome at LOFAR APP's ASTRON

Username:

Password:

Prepare proposal

facility : **LOFAR telescope**
 Community : **LOFAR community**

Choose category : *

Choose period : *

Deadline: 27 June 2014 00:00:00 UTC

Show reviewed proposals : Yes No

Proj_ID	PI	Title	Community	Category	Status	Options				
<i>LOFAR telescope Proposals</i>										
	Frieswijk	Test Jan 21 2014	LOFAR community	regular	in preparation	Edit	Copy	Delete	Submit	View
	Frieswijk	fcs	LOFAR community	regular	in preparation	Edit	Copy	Delete	Submit	View
	Frieswijk	Test 2014-01-08	LOFAR community	regular	in preparation	Edit	Copy	Delete	Submit	View
	Frieswijk		LOFAR community	regular	in preparation	Edit		Delete	Submit	View
	Oonk	Copy of LOFAR Galactic Radi...	LOFAR community	regular	in preparation	Edit				View
LRA12A001	Frieswijk	Just a test from science su...	LOFAR community	reserved_access	in preparation	Edit		Delete	Submit	View

Applicants



Netherlands Institute for Radio Astronomy

Adding applicants

Applicants Justification Observing Request Target List Additional Issues

[? Help](#)

Active Participant	contact author	PI	name	affiliation	country	email	potential observer			
yes	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Dr Wilfred Frieswijk	Astron	The Netherlands	frieswijk@astron.nl	<input type="checkbox"/>			
no	<input type="radio"/>	<input type="radio"/>	Willem	ASTRON	Netherlands	frieswyk@astro.rug.nl	<input type="checkbox"/>	invite	Edit	Delete

Select Proposal to import Applicant

Add applicant from other proposal

Add new applicant

Save and Continue Save and Preview Save and Exit Save and Submit Quit without saving

Justification: Scientific (+tech) pdf, envelope sheet and technical justification



Applicants Justification Observing Request target list Additional issues

new

Technical Justification

- Is nighttime required? Yes No
- Are there parallel observations planned with other observing facilities? Yes No
- Do you request using International stations? Yes No
- Are there other scheduling constraints? Yes No
- What is your sensitivity requirement? (mJy)
- What is the expected maximum data rate? (GB/s)
- Do you request any processing offered by the RO? Yes No
- Are you requesting storage in the LTA for raw data products? Yes No
- Do you require off-line data processing on RO facilities (CEP3)? Yes No
- Do you have access to external processing facilities? Yes No

Save and Continue Save and Preview Save and Exit Save and Submit

Applicants Justification Observing Request target list Additional issues

Help

Title (Max characters:150): (Characters entered: 17)*

Abstract (Max words:180):
 (Words entered: 0)*

Justification File(s):
 [Instructions for preparation](#)

Envelope sheet:

First Justification File:
 uploaded2014/06/24 06:44 UTC

Save and Continue Save and Preview Save and Exit Save and Submit Quit without saving

file upload restrictions improved

Upload justification file

[Instructions for preparation](#)

[Help](#)

Note: Only pdf files are allowed. Follow the [Instructions for preparation] to prepare the pdf and keep the number of pages within the limits of what is allowed for the specific call. If your proposal does not follow these instructions it may be rejected.

Maximum number of pages in the justification file to depend on the total requested observing time.

- If Total requested observing time <= 250 hours: up to 4 pages
- If Total requested observing time <= 500 hours: up to 5 pages
- If Total requested observing time <= 750 hours: up to 6 pages
- If Total requested observing time <= 1000 hours: up to 7 pages
- If Total requested observing time > 1000 hours: up to 8 pages

Upload Scientific Justification File: No file chosen

Is nighttime required? Yes No
Elaborate (Max words:60) :

nighttime requirement

(Words entered: 0)*

Are there parallel observations planned with other observing facilities? Yes No
Elaborate

parallel observations

(Words entered: 0)*

Do you request using International stations? Yes No
Are they essential/critical for the observations? Yes No
Elaborate

international stations

(Words entered: 0)*

Are there other scheduling constraints? Yes No
Elaborate

Explain why the International stations are essential for the science proposed.

other constraints

(Words entered: 0)*

What is your sensitivity requirement? (mJy)

What is the expected maximum data rate? (GB/s)

sensitivity & data rate

Do you request any processing offered by the RO? Yes No

Do you request the "default" imaging pipeline offered by the RO? Yes No

RO pipelines/imaging

Are you requesting storage in the LTA for raw data products? Yes No

Elaborate

raw data to LTA

(Words entered: 0)*

Do you require off-line data processing on RO facilities (CEP3)? Yes No
Elaborate

off-line processing (CEP3)

(Words entered: 0)*

Do you have access to external processing facilities? Yes No
Elaborate

external processing

(Words entered: 0)*

Observing requests: telescope/pipeline configurations



step 1



Applicants Justification Observing Request target list Additional issues

Id	Targets	Runs	Telescope	Mode	Exposure (Hours)	BF Data (TB)	Store Raw Data	UV Data (TB)	Store UV Data	TBB Data (TB)	Total LTA Storage (TB)	
A	0 targets	0 runs	LOFAR		0	0.0	NO	0.0	NO	0.0	0.0	<input type="button" value="Edit"/> <input type="button" value="Copy"/> <input type="button" value="Delete"/>

step 1a

Id	Targets	Telescope	Mode	av time	av freq	demixing	Total LTA Storage (TB)	P/O Ratio	Total Processing Time (Hours)	
A	0 targets	LOFAR	Pre processing only			N	0.00			<input type="button" value="Edit"/> <input type="button" value="Copy"/> <input type="button" value="Delete"/>

step 1b

You must specify targets/observation setup here.

LOFAR

Time specified for targets (in hours):
Total 0

Hours requested this period (incl. cal. and o/heads) :
Total

Minimum useful time (hours):
Total Minimum useful time must be less than or equal to requested hour.

Storage specified: 0.00 TB
Long term LTA storage requested in terabytes (10¹² bytes):
Total

Other scheduling details :

Observing requests: telescope configurations



step 1a

Applicants Justification **Observing Request** target list Additional issues

Telescope configuration :

Telescope : LOFAR

- Choose an observing mode :
- Interfero Mode Settings
 - BeamFormed Mode Settings
 - TBB Mode Settings
 - TBB (PiggyBack) Mode Settings
 - Other Settings

 **Commit Observation specification**

 **Save and Continue**

 **Save and Preview**

 **Save and Exit**

 **Save and Submit**

 **Quit without save**

Observing request telescope configuration

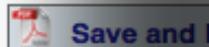
step 1a

Applicants Justification Observing Request

Telescope configuration :

Choose an observing

 Save and Continue

 Save and Continue

Telescope configuration :

Telescope : LOFAR

Choose an observing mode : Interfero Mode Settings
 BeamFormed Mode Settings
 TBB Mode Settings
 TBB (PiggyBack) Mode Settings
 Other Settings

Common Settings

Choose stations : Core (24) *
Choose clock : 200 MHz *
Choose antenna : HBA Dual (48) *
Choose filter : 110-190 MHz *

BeamFormed Mode Settings

Coherent stokes : Yes No
Incoherent stokes : Yes No
Fly's eye : Yes No
Raw voltage : Yes No
Polarizations (CS/FE) : 1 *
Coherent tied array beams : 1 *
Coherent Channels per subband : 1 16 32 64 128 256 512 *
Coherent Stokes integration steps : 128 *
tied array rings : 3 *
Keep raw observation data : Yes No

Interfero Mode Settings

Integration time: (seconds) : 1 *
Keep correlated visibilities data : Yes No
Required noise level (Jy) : 1

TBB Mode Settings

Trigger Length (sec) : 0.0010 *
Trigger Length must be between 0.001 to 5 sec
Trigger Rate (per hour) : 1 *
Trigger Source : LORA particle detector *

Other Settings

Configuration comments : Any comments you may have... *

 Commit Observation specification

Observing requests: pipeline configurations

step 1b



Applicants Justification Observing Request target list Additional issues

Pre processing parameters

Processing mode: **Pre processing only** *

Flagging strategy: **LBA** *

Averaging time steps: **5** [steps] *

Averaging freq. steps: **16** [steps] *

Demixing ? Yes No

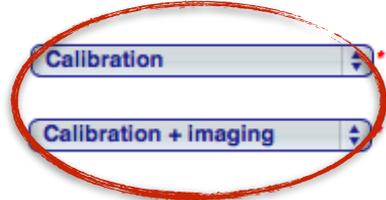
Demixing time steps: **10** [steps] *

Demixing freq. steps: **64** [steps] *

Demixing sources :

- CygA
- CasA
- TauA
- VirA
- HerA
- HydA

Configuration comments :



Imaging parameters

No imaging selected in processing mode

Subbands per image : [int] *

Field of view : [deg] *

Commit Pipeline

Observing requests: pipeline configurations



step 1b

Applicants Justification Observing Request target list Additional issues

Pre processing parameters

Processing mode: **Pi**
Flagging strategy: **LB**
Averaging time steps: 5
Averaging freq. steps: 16
Demixing ?
Demixing time steps: 10
Demixing freq. steps: 64

Configuration comments :

Imaging parameters

Subbands per image :
Field of view :

Pipeline configuration

Pre processing parameters

Processing mode: **Pulsar pipeline** *
Configuration comments :

Commit Pipeline

Save and Continue **Save and Preview** **Save and Exit** **Save and Submit** **Quit without save**

Demixing sources :

CygA

Pipeline configuration

Pre processing parameters

Processing mode: **Long baseline calibration** *
Flagging strategy : **LBA** *
Averaging time steps: 5 [steps] *
Averaging freq. steps : 16 [steps] *
Configuration comments :

Commit Pipeline

Save and Continue **Save and Preview** **Save and Exit** **Save and Submit** **Quit without save**

Target list: manual or upload



step 2

Applicants Justification Observing Request **target list** Additional issues

Targets :

Run#	Field	RA	Dec	Epoch	Time(Hours)	Subbands	Calibr.	Obs.	Pipe.	Comments	Edit	Copy	Delete
1	3C196	08:13:36.07	+48:13:02.6	J2000	100	12..499		A	A	split in 10-12hr blocks			
2	3C196	14:11:20.60	+52:12:09.0	J2000	0.17	55..420		B	B	flux cal			
3	DF001	17:10:00.00	+60:50:00.0	J2000	6	55..420		B	C	target beam			
	3C343	16:34:33.81	+62:45:36.0	J2000		55..77,401..420		B	B	cal beam			
4	3C48	01:37:41.30	+33:09:35.1	J2000	0.17	55..420		B	B	flux cal			
5	3C147	05:42:36.26	+49:51:07.1	J2000	1	52..467	Y	C	D	Calibrator Run#5-6			
6	DC156	05:32:32.00	+52:50:00.1	J2000	6	52..467		C	E	Target Run#5-6			
7	Fr479	06:03:00.00	+52:00:00.0	J2000	14	156..316		D	F	Target beam			
	Fr480	07:08:00.00	+44:00:00.0	J2000		156..316		D	F	Target beam			
	3C196	08:13:36.07	+48:13:02.6	J2000		156..316	Y	D	F	Calibrator beam			
8	P0123	01:02:03.00	+82:00:00.0	J2000	1	256..300		E	G	Beamformed			
9	empty	00:00:00.00	+00:00:00.0	J2000	1,500	55		F	H	TBB piggyback			

New Target :

Calibration beam? : Yes No

Field name : [Get RA & Dec from Simbad](#) NB: proposers should check coordinates

RightAscension : hh:mm[:ss.ss] *

Declination : [+|-]dd:mm[:ss.ss] *

Epoch :

Flux density (Jy) : Reference frequency (MHz) :

Spectral index α (S(v) - v^{- α}):

Subband list :

NB: Put Frequency and Bandwidth and get SubbandList calculated, Otherwise put SubbandList manually. For Example: 2-315,15-115 etc. The maximum number of subbands per run is 488

Central frequency : Bandwidth :

Run# :

Exposure time in minutes :

Select observation :

Select processing pipeline :

Comments :

target upload (recommended)

Observing requests: targets coupled



Applicants Justification Observing Request **target list** Additional issues

Applicants Justification Observing Request **Target List** Additional issues

Help



Id	Targets	Runs	Telescope	Mode	Exposure (Hours)	BF Data (TB)	Store Raw Data	UV Data (TB)	Store UV Data	TBB Data (TB)	Total LTA Storage (TB)						
A	1 targets	1 runs	LOFAR	Interferometer	100	0.0	NO	195.2	YES	0.0	195.2		Edit		Copy		Delete
B	3 targets	2 runs	LOFAR	Interferometer	6.17	0.0	NO	42.71	YES	0.0	42.71		Edit		Copy		Delete
C	2 targets	2 runs	LOFAR	Interferometer	7	0.0	NO	34.31	YES	0.0	34.31		Edit		Copy		Delete
D	3 targets	1 runs	LOFAR	Beam Observation-Interferometer	14	0.37	YES	4.83	YES	0.0	5.19		Edit		Copy		Delete
E	1 targets	1 runs	LOFAR	Beam Observation	1	0.04	YES	0.0	NO	0.0	0.04		Edit		Copy		Delete
F	0 targets	0 runs	LOFAR	Interferometer-TBB	0	0.0	NO	0.0	YES	0.0	0.0		Edit		Copy		Delete
G	0 targets	0 runs	LOFAR	TBBPIGGYBACK	0.28	0.0	NO	0.0	NO	6.13	6.13		Edit		Copy		Delete

Specify a new observation

Id	Targets	Telescope	Mode	av time	av freq	demixing	Total LTA Storage (TB)	P/O Ratio	Total Processing Time (Hours)						
A	1 targets	LOFAR	Pre processing only	1.0	1.0	Y(CygA,CasA)	253.76	3(1)	300		Edit		Copy		Delete
B	2 targets	LOFAR	Pre processing only	10.0	64.0	N	0.18	0.5(1) 1.5(1)	3.25		Edit		Copy		Delete
C	1 targets	LOFAR	Pre processing only	5.0	16.0	N	1.08	1.5(1)	9		Edit		Copy		Delete
D	1 targets	LOFAR	Calibration	10.0	64.0	N	0.07	1.5(1)	1.5		Edit		Copy		Delete
E	1 targets	LOFAR	Calibration + imaging	10.0	64.0	N	0.07	c:1.5i:0.9(1)	14.4		Edit		Copy		Delete
F	3 targets	LOFAR	Calibration	10.0	64.0	Y(CygA,CasA)	0.04	2(3)	28		Edit		Copy		Delete
G	1 targets	LOFAR	Pulsar pipeline			N	0.00	0.2(1)	0.2		Edit		Copy		Delete

Specify a new Pipeline :

Observing requests: targets coupled



Applicants Justification Observing Request **target list** Additional issues

Applicants Justification Observing Request **Target List** Additional issues

[? Help](#)

Id	Targets	Runs	Telescope	Mode
A	1 targets	1 runs	LOFAR	Interferometer
B	3 targets	2 runs	LOFAR	Interferometer
C	2 targets	2 runs	LOFAR	Interferometer
D	3 targets	1 runs	LOFAR	Beam Observa
E	1 targets	1 runs	LOFAR	Beam Observa
F	0 targets	0 runs	LOFAR	Interferometer-
G	0 targets	0 runs	LOFAR	TBBPIGGYBA

LOFAR

Time specified for targets (in hours):
Total 1,128.17

Hours requested this period (incl. cal. and o/heads) :
Total **1130**

Minimum useful time (hours): manual request
Total **1000** Minimum useful time must be less than or equal to requested hour.

Storage specified: 538.79 TB

Long term LTA storage requested in terabytes (10¹² bytes):
Total **550**

Storage (TB)	Edit	Copy	Delete

Id	Targets	Telescope	M														
A	1 targets	LOFAR	P														
B	2 targets	LOFAR	Pre processing only	10.0	64.0	N	0.18	0.5(1)	1.5(1)	3.25							
C	1 targets	LOFAR	Pre processing only	5.0	16.0	N	1.08	1.5(1)		9							
D	1 targets	LOFAR	Calibration	10.0	64.0	N	0.07	1.5(1)		1.5							
E	1 targets	LOFAR	Calibration + imaging	10.0	64.0	N	0.07	c:1.5i:0.9(1)		14.4							
F	3 targets	LOFAR	Calibration	10.0	64.0	Y(CygA,CasA)	0.04	2(3)		28							
G	1 targets	LOFAR	Pulsar pipeline			N	0.00	0.2(1)		0.2							

Specify a new Pipeline :

Additional issues: student, publications...



Applicants Justification Observing Request Target List **Additional issues**

Information about all Students involved

 **add new student**

Add publications (Max 8) :
place each publication on a new line,
the following information has to be given:
Author List, Title of Paper and Journal Reference

mandatory field: publication/previous proposals

Additional Remarks :

 **Save and Continue**

 **Save and Preview**

 **Save and Exit**

 **Save and Submit**

 **Quit without saving**

Final words



Netherlands Institute for Radio Astronomy

Deadline for Cycle 3: **Sep 10 2014**

Northstar for Cycle 3 will be available soon

questions:

- mail: sciencesupport@astron.nl