

VLBI Proposals in 2018

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1 What data already exists?

We have a Google Docs spreadsheet to tabulate what data exist for super burst candidates:

https://docs.google.com/spreadsheets/d/1q66mFsBzo_QSWB3isB_Q7lddEwuCN_ixjxBDR0MoXg8/edit#gid=0

2 Desired observations

To reach the science goals of our project we will need to perform several kinds of observations - each observation type will have a preferential choice of VLBI array.

- **Baseline observations for pre-bursts**

High sensitivity to provide context for subsequent bursts
Polarisation is desirable
Scheduling is not important

Targets: ?

Array choice: EVN - deadline 1st June

- **Triggered observations during bursts**

Reasonable sensitivity
Polarisation is desirable
Quick response scheduling

Targets: 6.7 GHz - G25.65, W49N, + other?

22 GHz - W49N? + other?

Array choice: VLBA - deadline 1st Aug

- **Parallax measurements**

Reasonable sensitivity
Polarisation not needed
Dense scheduling

Targets: G25.65+1.05

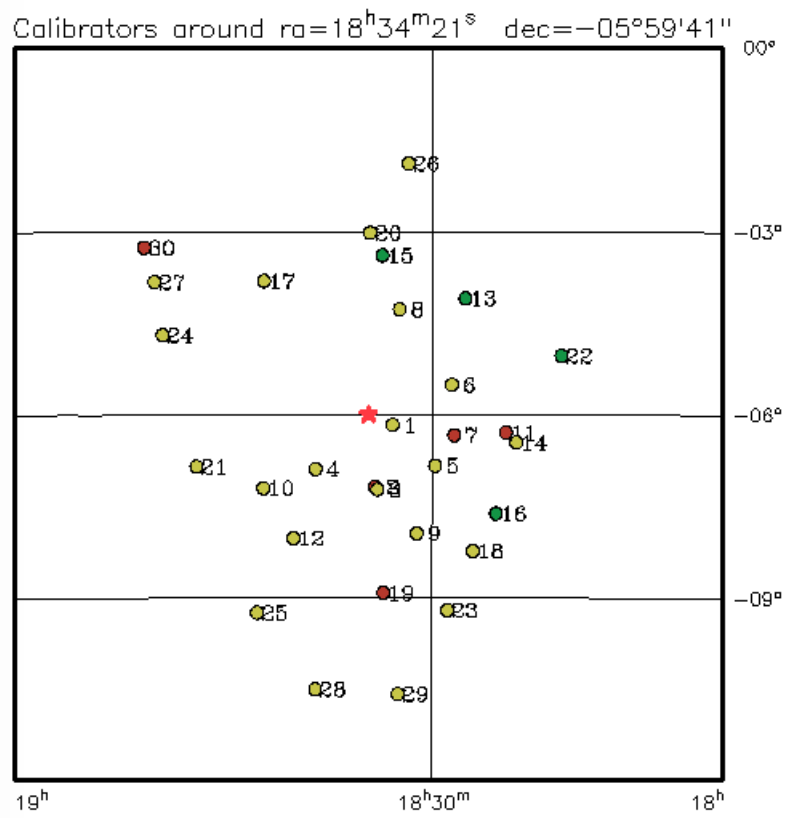
Issue: No suitable dual-beam calibrators for VERA

Option: 1// EVN calibrator survey (no deadline) -> VERA parallax (deadline 1st Nov)

Option: 2// VLBA parallax (deadline 1st Aug)

3 Considerations

Do we want baseline and triggered observations to be of the same sensitivity? Use same array?



1	0°.45	J1832-0610
2	1°.20	J1833-0711
3	1°.24	J1833-0713
4	1°.27	J1837-0653
5	1°.41	J1829-0650
6	1°.49	J1828-0530
7	1°.49	J1828-0620
8	1°.80	J1832-0416
9	2°.12	J1831-0756
10	2°.16	J1841-0712
11	2°.35	J1824-0617
12	2°.40	J1839-0801
13	2°.51	J1827-0405
14	2°.55	J1824-0627
15	2°.61	J1833-0323

Figure 1: The bipolar outflow seen in S235AB, traced by HCO⁺ from Felli, M. et al.