

Double Maser Super Burst telecom, No. 2

Minutes

March 2, 2018
minutes: Ross Burns

1 Meeting participants

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2 Recent maser activity

Reporting on any flare, or otherwise interesting behavior of maser sources seen in monitoring observations (M2O)

Mateusz: Torun experienced a short interruption of results but observations and results should resume in a week or so

Georgij: Pushchino was observing G25 at the time of the meeting

James: Hart has a large amount of past monitoring data that needs to be reduced.

Sugiyama: Ibaraki 32m telescope continues frequent 6.7 GHz monitoring observations and data checking. No new bursts seen since S255 but new activity will be announced. The group at Ibaraki is concentrating on both short and long term flux variations.

[Group discussion on the possible physical processes involved in periodic masers]

Generally there were no reports of burst behavior announced during the meeting however observations are ongoing and we wait for an announcement from the M2O (Single dish)

3 Progress reports

Reporting on the data reduction and results of data obtained in relation to the M2O-VLBI project.

Compact array
VLA // SMA? // Other?

The progress in VLA methanol maser data processing: map at 6.7 GHz

Olga: Presented the VLA distribution of 6.7 GHz methanol masers and also showed the positions of continuum sources. The distribution of masers has three main clusters with one continuum source near the center of the three - and the other continuum source at some offset

[See figures on the wiki]. Maps from previous observations also at 22 and 44 GHz are available so the interpretation will benefit from comparing all available data.

Elongation was seen in the 44 GHz data for both continuum sources, however elongation was only seen in the one continuum source at 6.7 and 22 GHz.

There was some discussion about the possible causes of the unusual maser distribution however no strong conclusion was reached; we need to consider the results in the context of the literature.

The 44 GHz class I methanol maser distribution and continuum positions were also presented by Olga and collaborators.

VLBI

EVN // KaVA // VLBA // VERA // QUASAR // RadioAstron // Other?

The first results of G25 observations in RadioAstron project (SRT+ground-base telescopes) Nadya: Presented the RadioAstron result. FRINGES DETECTED!! [see the report on the wiki page for all the details]. The single dish spectrum at the time of the RadioAstron observation was 20,000 Jy. The recovered flux density on RadioAstron baselines was about 1%. More observations in April.

4 Proposals

Next VLBI deadline is 1st June 2018 - for VERA/KaVA and EVN.

- Baseline observations of maser burst candidates.
- Currently bursting targets.
- Possible discussion with VLBI project of Yonekura.

Decided to keep a Google Docs spreadsheet to tabulate which maser burst candidates have VLBI data already available during quiescence and burst phases, also parallaxes and other information. Using this we can determine what data is missing and therefore should be proposed.

Click the tiny link below

https://docs.google.com/spreadsheets/d/1q66mFsBzo_QSWB3isB_Q7lddEwuCN_ixjxBDRoMoXg8/edit?usp=sharing

5 Human Resources

Visits

Other announcements

Gordon (priv. com.): Launching new website as soon as possible and looking for funding to support maser projects. Also, incoming news on interesting periodic maser source.

Sugiyama and Ross attending the Massive Star formation meeting - lake Windemere, UK

Magnetic fields meeting at IAU GA, we could consider participation.