

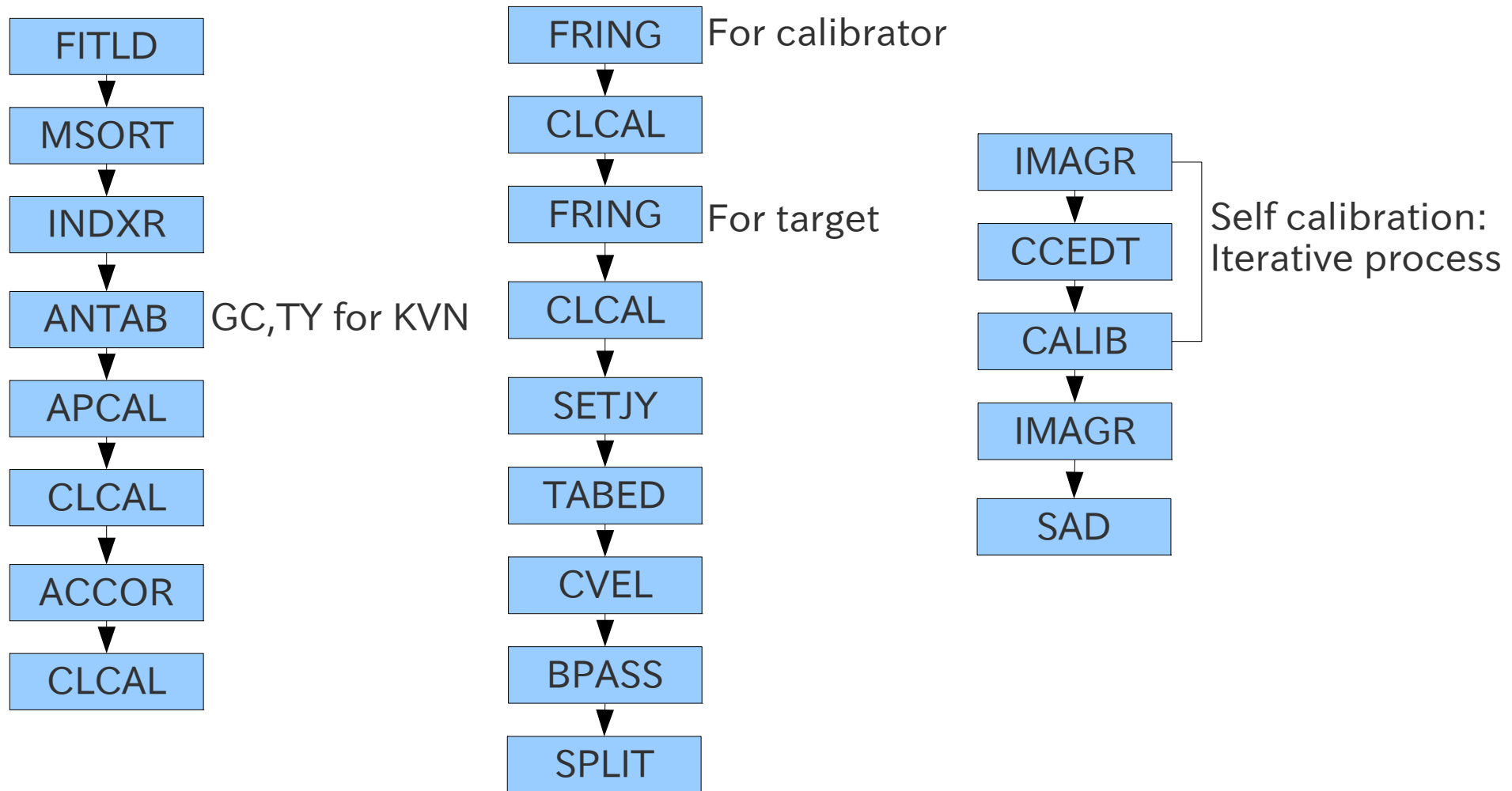
VERA+KVN による Orion-KL 試験観測結果報告

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Data

- Test observation for VERA+KVN 7 stations :
MIZ, OGA, IRK, ISG, US, YS, TN
- Observing time : 5 hours
- Target : Orion-KL H₂O, SiO masers
calibrator : J0359+50
- Obs. Code :
 - SiO maser : R10107B, R10120B
 - H₂O maser : R10105A, R10116A

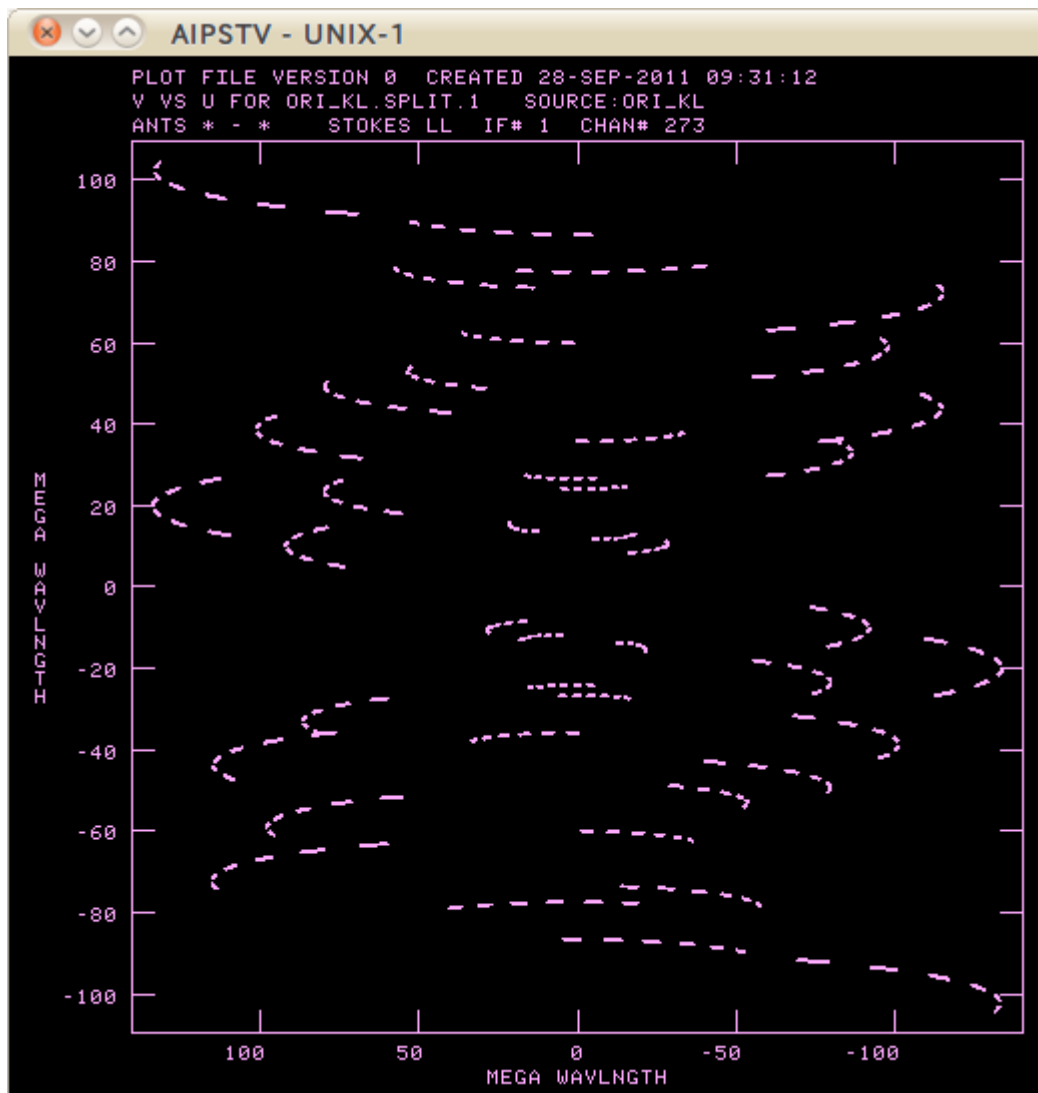
AIPS FLOW CHART



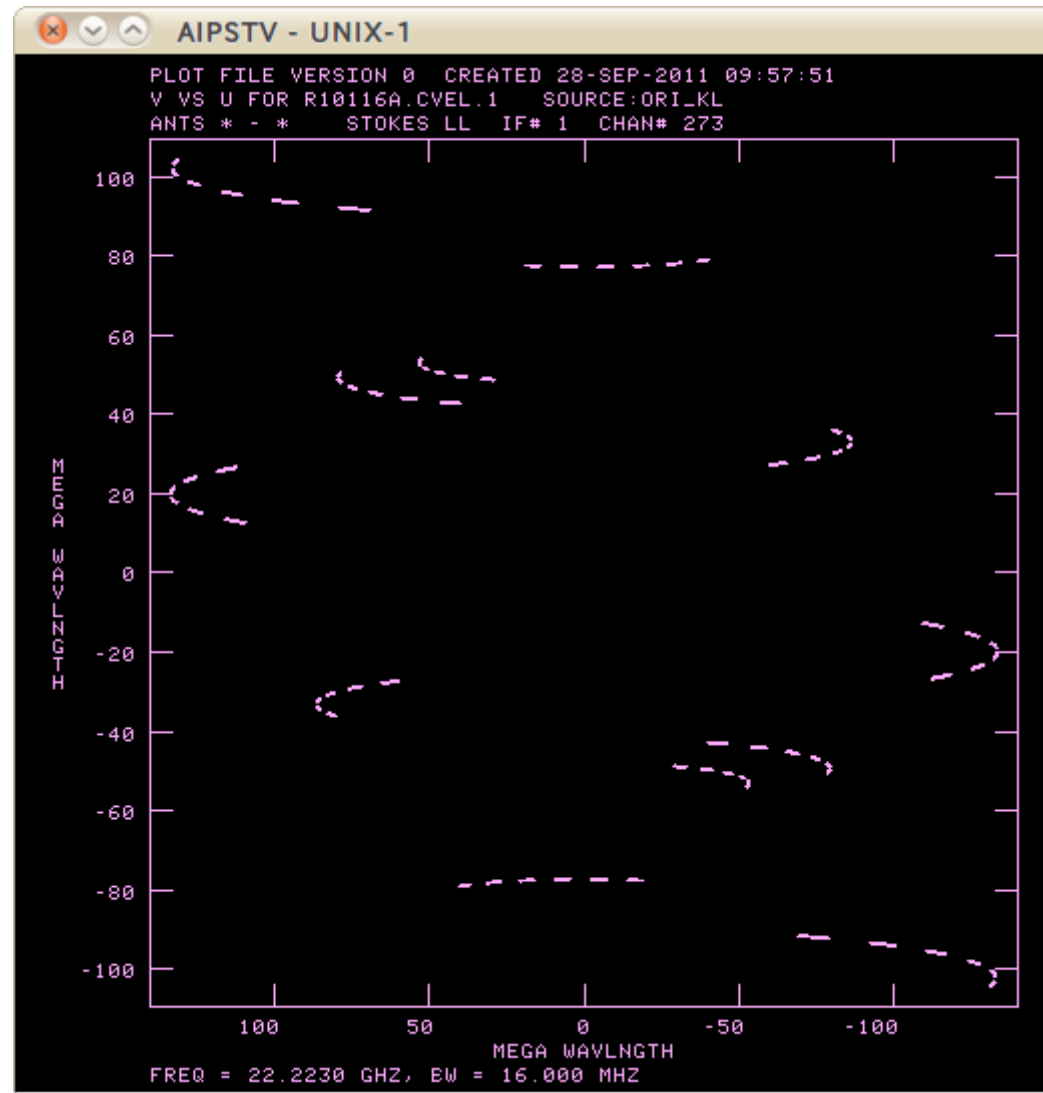
Identification for the maser feature :

- 1) peak intensity > 0.5 Jy (set in SAD parameter)
- 2) detected in at least 3 adjacent channels
- 3) the change in position is less than 0.2 mas in x, 0.3 mas in y

U-V coverage(R10116A, Orion-KL)



All 7 stations



VERA only

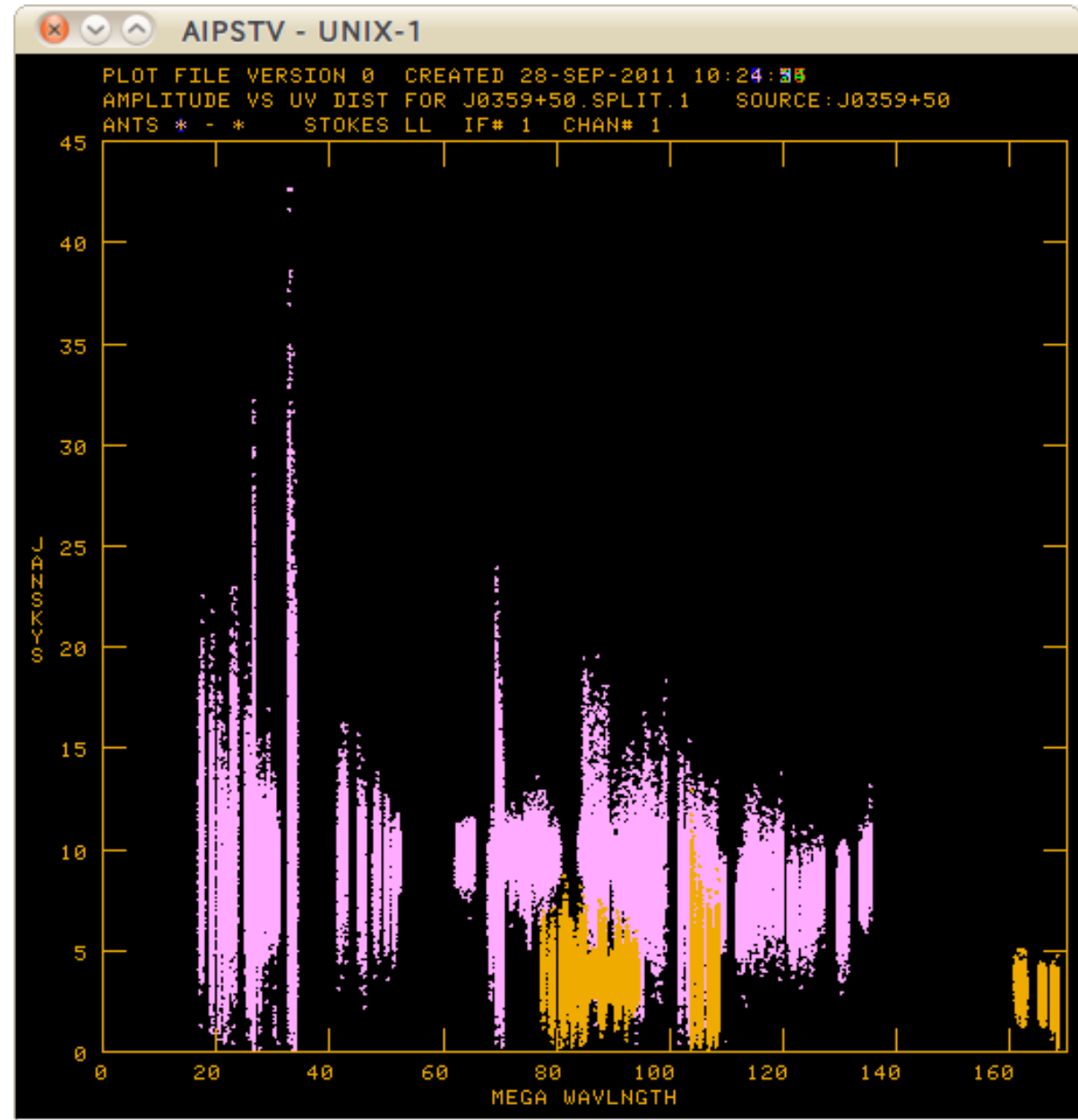
UV-Amplitude plot

R10116A, J0359+50

Pink : all stations

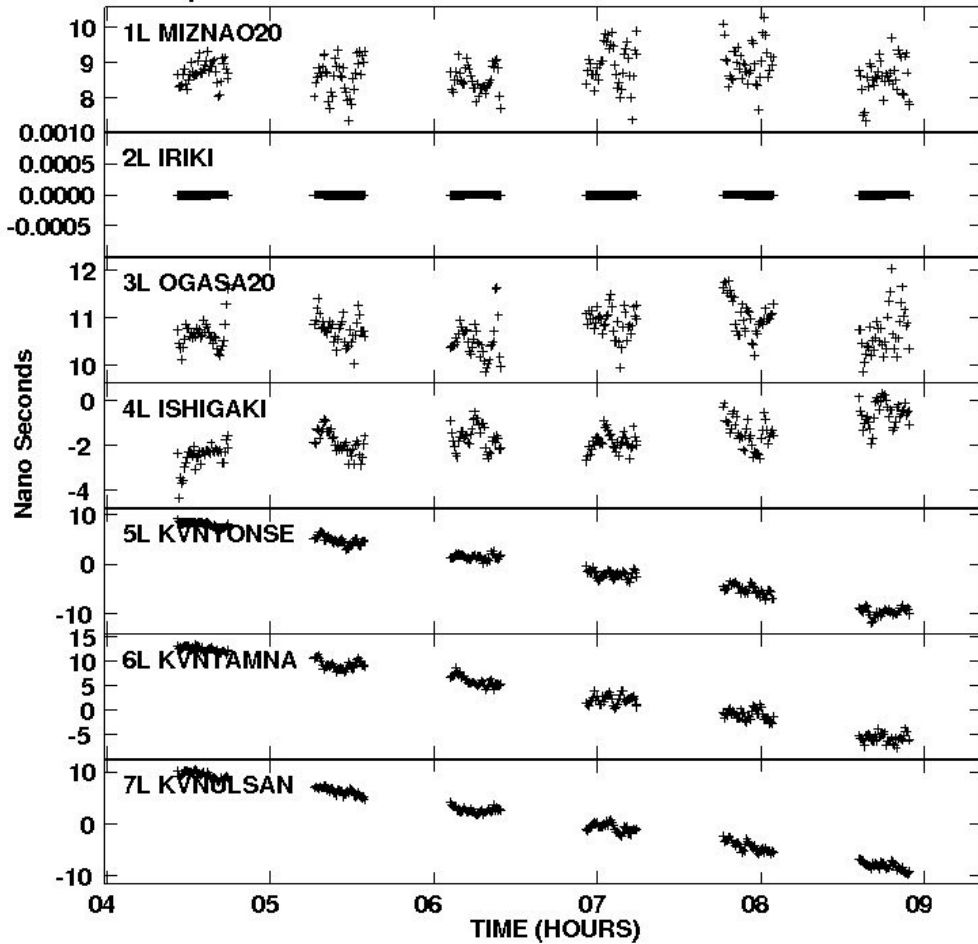
Orange : including MIZ

Visibility amplitude of the
Baselines including MIZ
are lower than others.



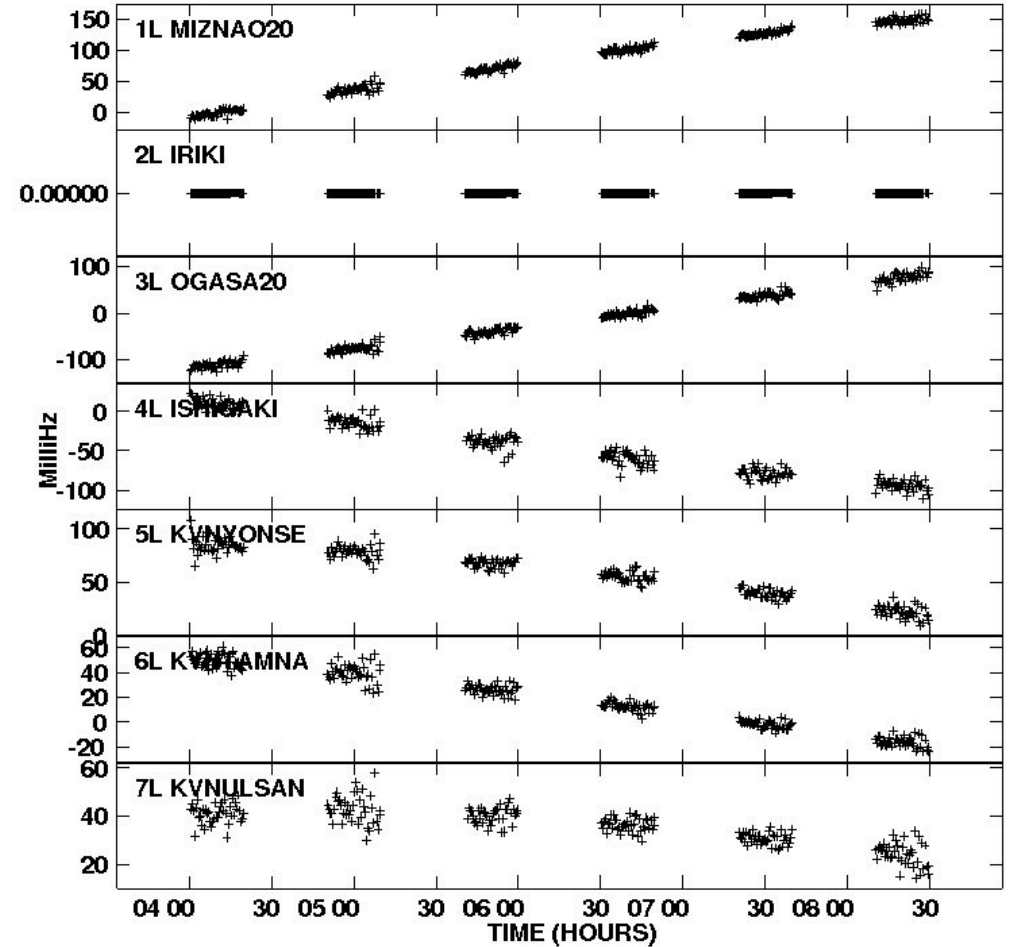
SN tables – R10116A (delay, rate)

Plot file version 4 created 24-AUG-2011 13:49:59
Delay vs UTC time for R10116A.CVEL.1
SN 4 Lpol IF 1



Delay for calibrator

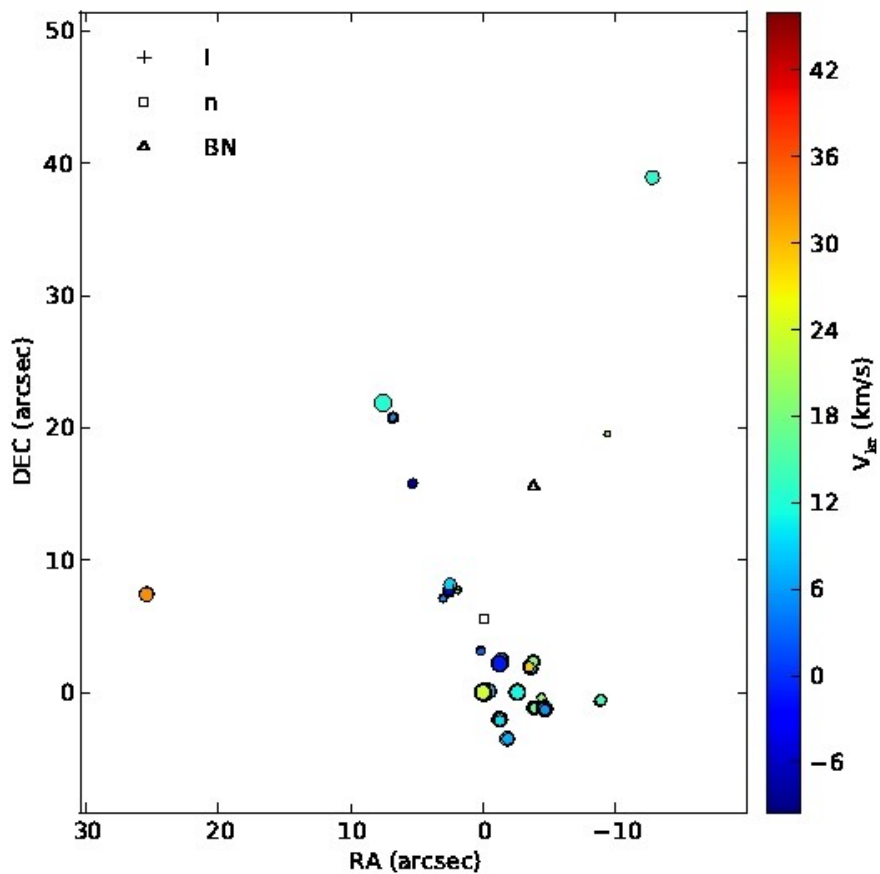
Plot file version 5 created 24-AUG-2011 13:55:13
Rate vs UTC time for R10116A.CVEL.1
SN 5 Lpol IF 1



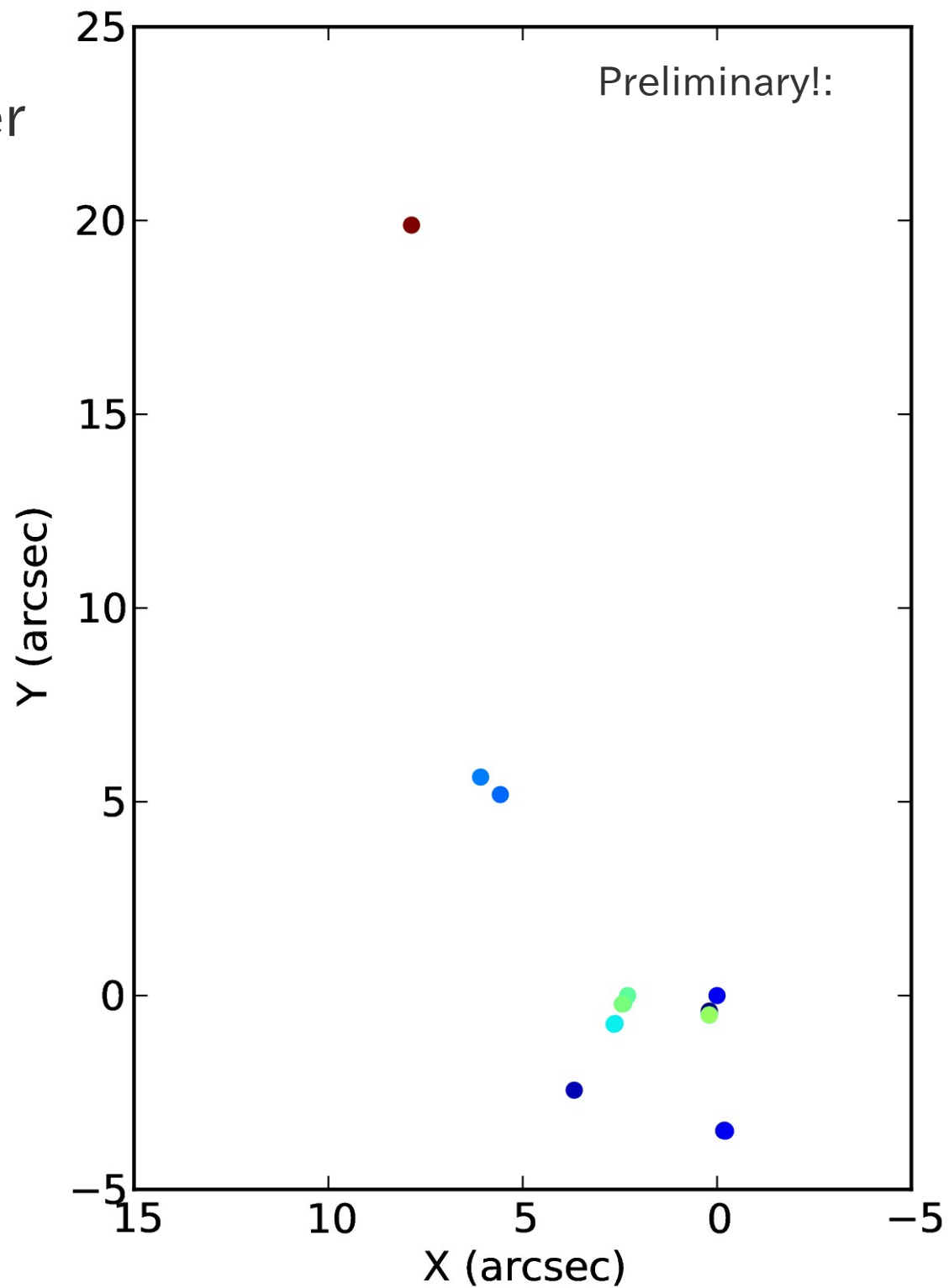
Rate for maser source

: the value of rate is large because the position of the reference spot is $\sim 7''$ from the observed coordinate of Orion KL.

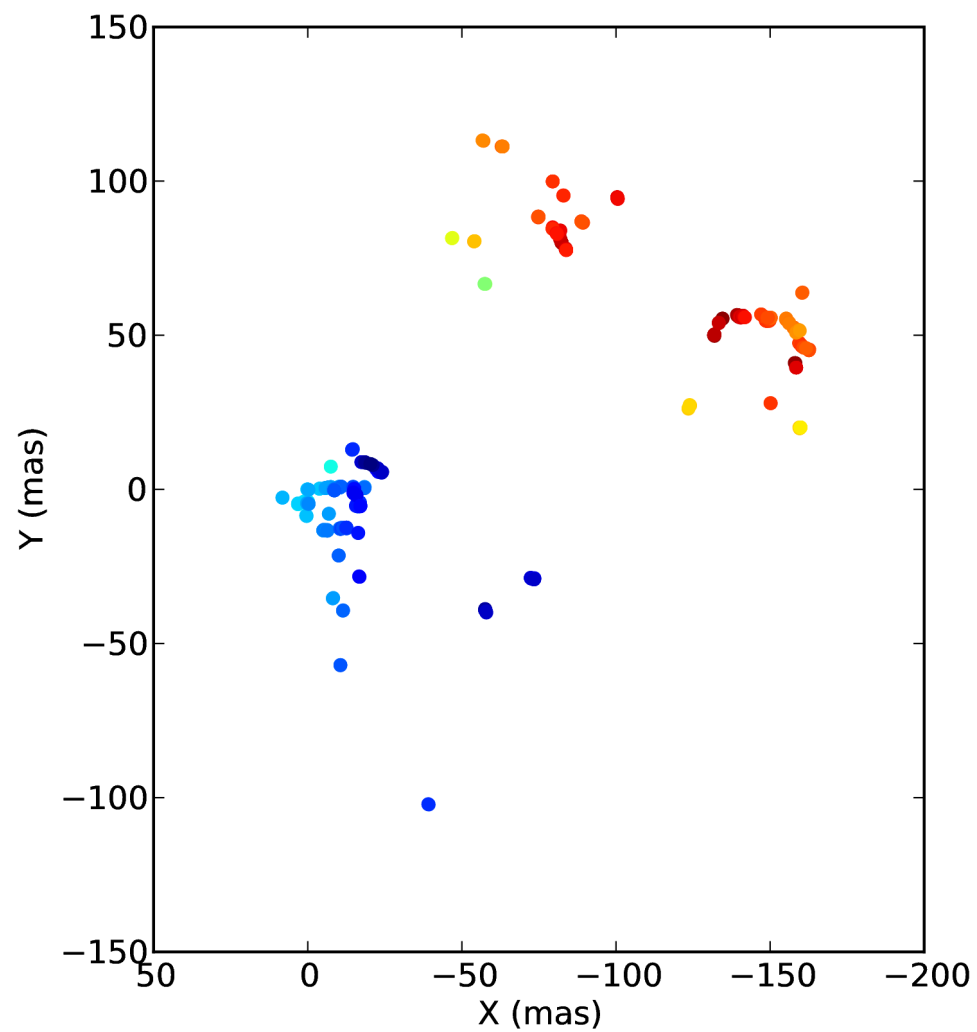
Distribution of H₂O maser (r10116a)



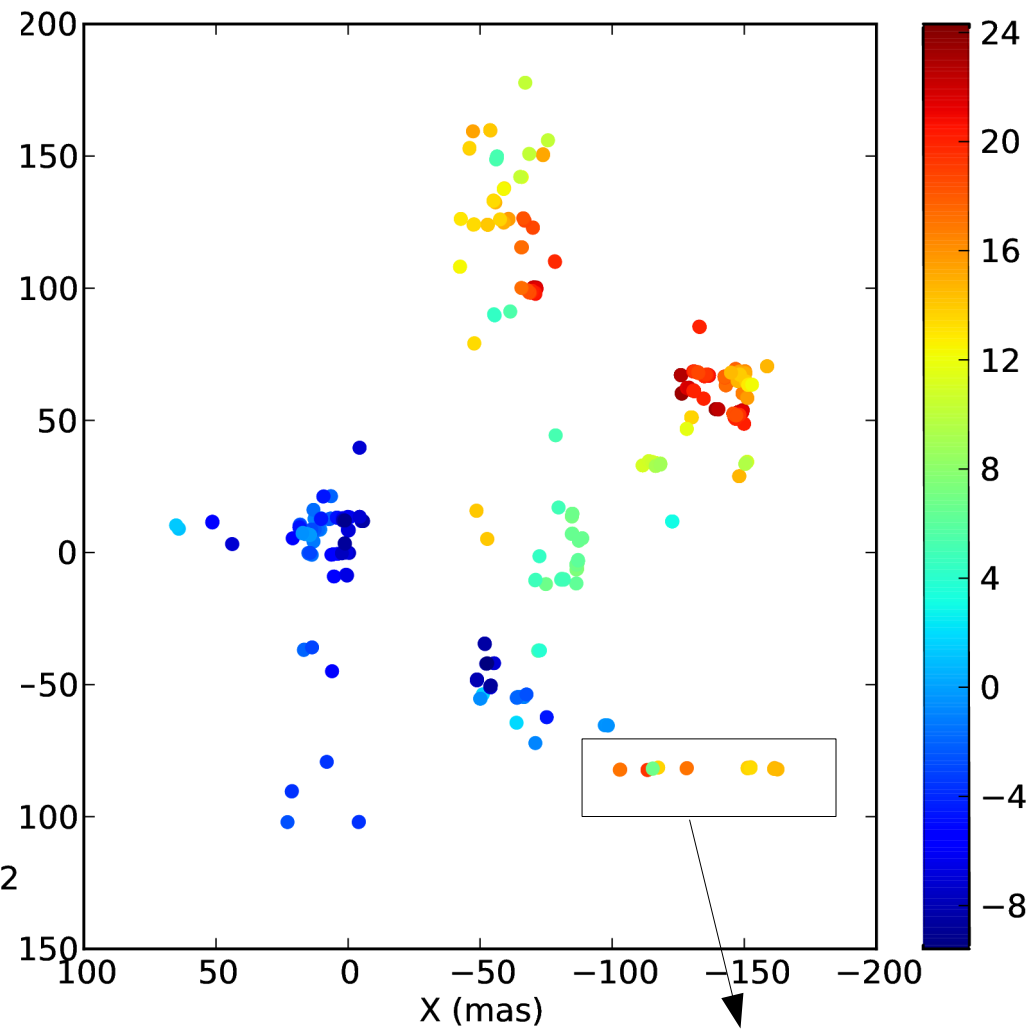
cf. H₂O maser map by VERA



Distribution of SiO masers (r10107b)



SiO v=2 masers



SiO v=1 masers