KaVA SFRs project

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<<on behalf of SFRs sub-WG>>

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1. Summary of SFRs sub-WG

- Membership
  - Tomoya Hirota (co-PI in Japan)
  - Kee-Tae Kim (co-PI in Korea)
  - 34 members according to our mailing list
  - About 10-15 members are joining the meeting
  - New members are always welcome !
- Previous meeting
  - Skype meeting ~once per month
  - F2F meeting in KaVA Science WS twice per year

1. Summary of SFRs sub-WG

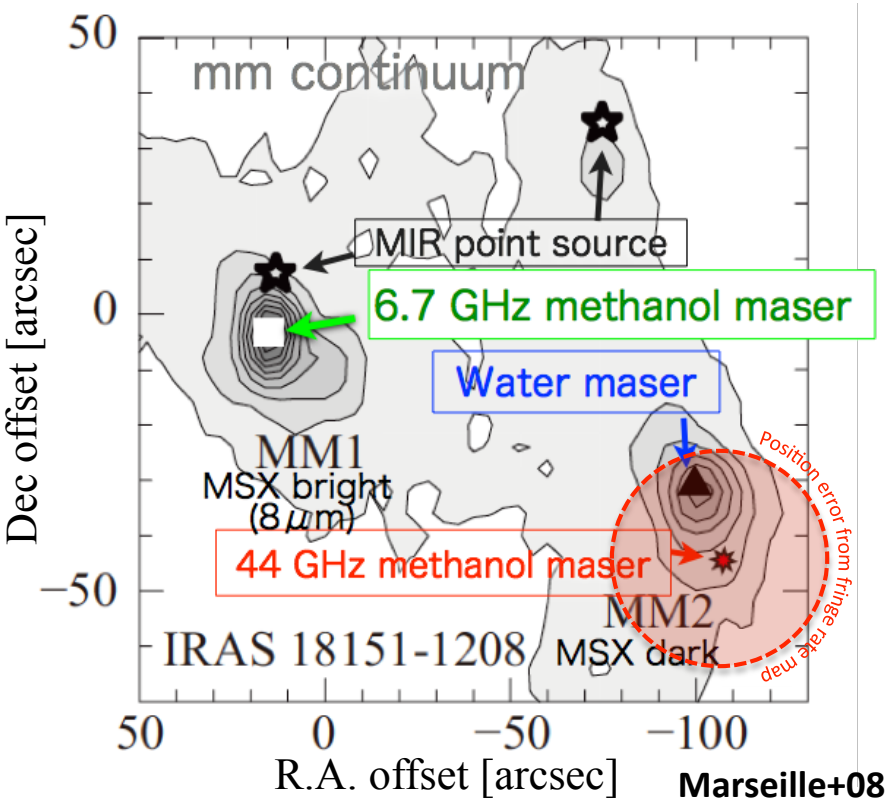
- Discussion items
  - KaVA test observation plan/proposals
  - Results of data analysis including technical issues and science case
  - Follow-up proposal for VERA, KVN, JVN, and ALMA
  - Future workshop/symposium related to SFRs study
  - Future project science;
    - Most important but not well discussed due to limited discussion time

2. KaVA observations and results

First KaVA paper:

Matsumoto et al. 2014, July (ApJL)

- IRAS 18151-1208 MM2 (r12099b)
- Clearly detected extend structure with VLBI.
- →The brightness temperatures were similar to those of 6.7 GHz class II methanol maser.
- Estimated accurate position from fringe rate map



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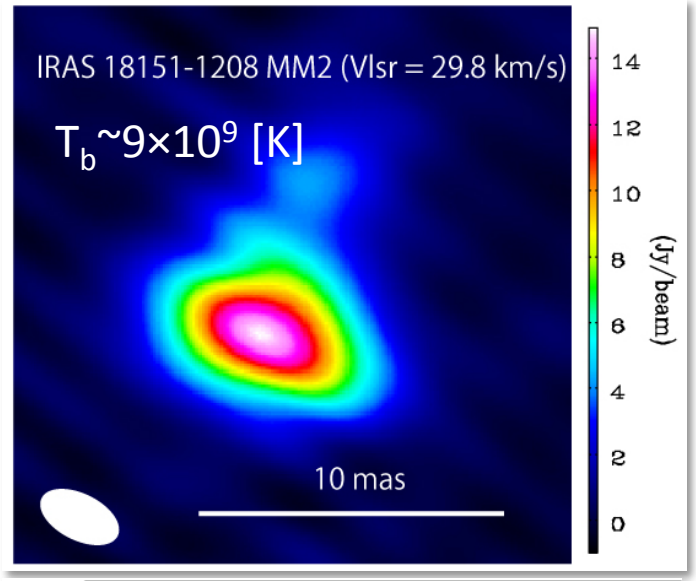

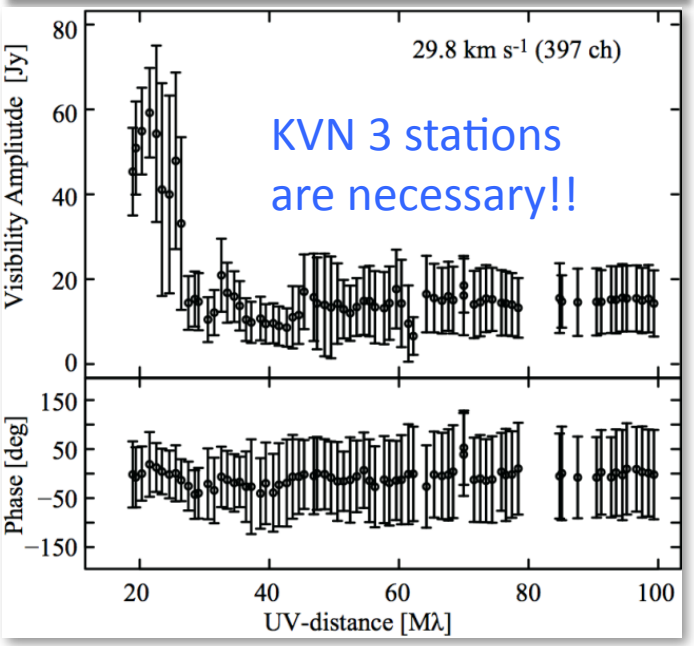

3. Future project

- SFRs sub-WG called for (internal) proposals
- Following sub-projects will be combined into single large project for statistical studies of massive YSOs
  - Multiple maser-emitting YSOs
  - High-velocity jet sources
  - 44 GHz CH_3OH maser survey
  - Mass accretion measurements (outflow sources)
  - Test of merging theory (cluster forming regions)
  - Total 100 H_2O/CH_3OH masers in massive YSOs are cataloged

3. Future project

- Schedule
  - Current status will be reported in DM the day after tomorrow
  - Sciences of large project will be discussed until Dec;
    more detailed discussion is necessary!
  - Proposal will be prepared by the end of this year
  - Follow-up observations with VERA/KVN/JVN/ALMA
    and other instruments including 6.7 GHz methanol
    masers and other tracers are planned in parallel
- If you are interested in using KaVA for SFRs study,
  please contact Tomoya Hirota or Kee-Tae Kim
  - New proposals are also welcome