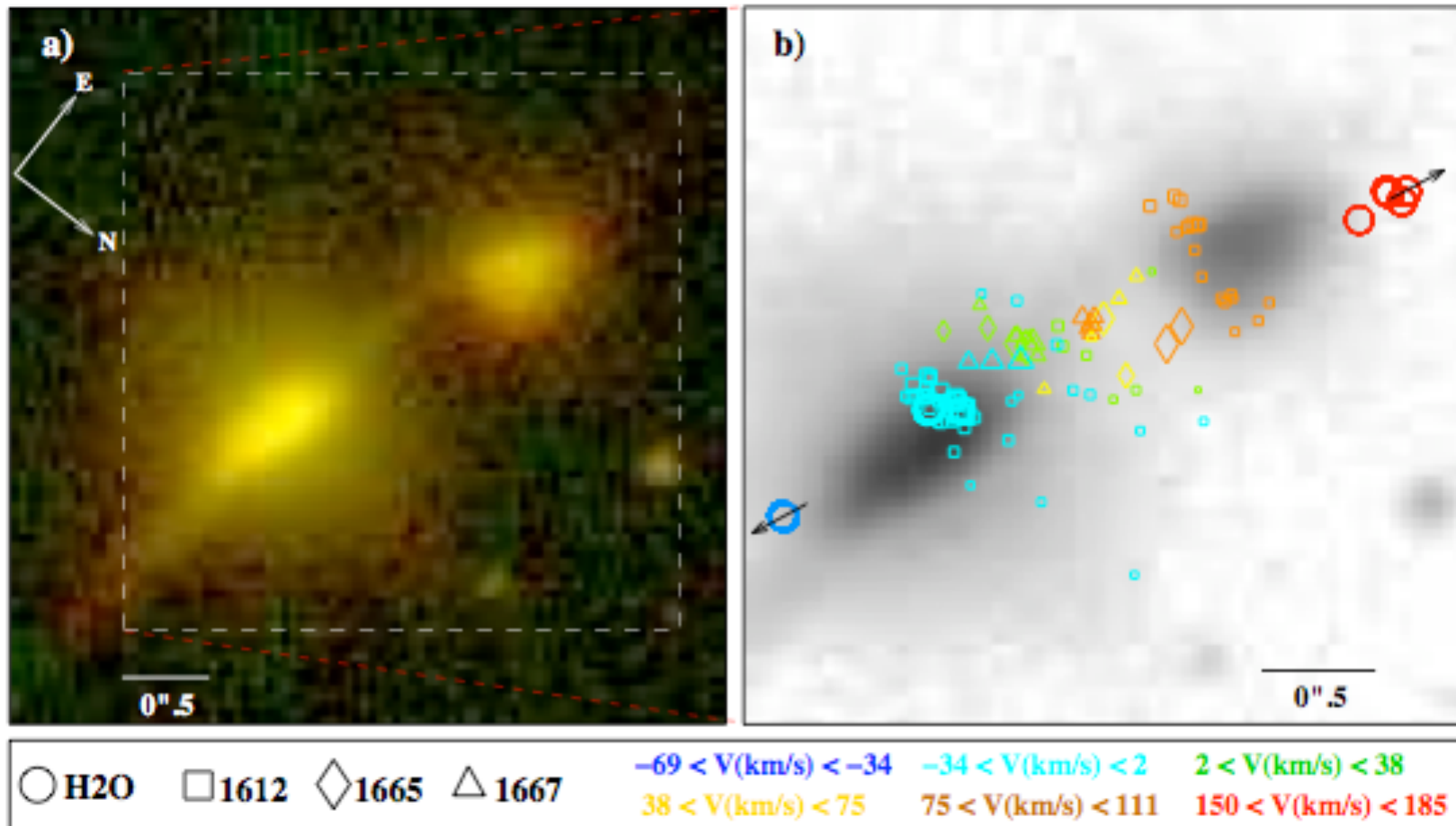


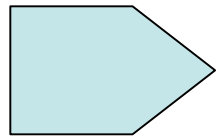
Trigonometric Parallax Distances and Proper Motions of Jets in Dying Stars with the VLBA

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- Water fountain nebulae are optically obscured
- Accurate distance measurements to PPNs are sparse



Limited accuracy on distance limits accuracy of derived stellar properties:

- luminosity
- mass
- mass-loss rate

- Proper motion of masers is a combination of:
 - Motion of gas relative to central object
 - Peculiar motion of source within galaxy
 - Parallax
- Measure gas kinematics in water fountain nebulae
- Measure distances using trigonometric parallax