Methanol masers and millimetre lines : a common origin in protostellar envelopes

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Propositions accompanying the thesis

Methanol masers and millimetre lines:

a common origin in protostellar envelopes

1. VLBI observations of maser emission offer a unique possibility to probe the kinematics and physical conditions of high-mass star formation on the scales that are relevant for infall and accretion.

   Chapter 2

2. A substantial number of the observed 6.7 GHz methanol masers originate in the equatorial region of a high-mass protostar.

   Chapters 2 and 5

3. The origin of large-scale methanol emission can be traced back to activity associated with the protostar.

   Chapters 3 and 4

4. Radiative excitation lies at the origin of the 6.7 GHz methanol maser.

   Chapters 3 and 4

5. Class II methanol maser emission does not occur in low-mass star-forming regions despite the physical conditions being similar to those of high-mass star-forming regions.

6. The naming conventions for HII regions with various spectral and morphological types can be deceptive.

7. The order of the relevant set of Walsh functions can limit the scientific capabilities of an interferometer.

8. VLBI makes all other observations dim.

9. One person's noise is another person's signal.

10. Science is like sailing: making progress often involves going against the prevailing wind.

11. 210 wolves do not constitute a viable population.

12. There is at most one opportunity per year for one's thesis defence to occur on the day of the patron saint of sailors, thieves and students.

Leiden, December 6, 2011
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