

Propositions

Studies of Dust and Gas in the Interstellar Medium of the Milky Way

1. No major contribution from embedded protostars is required to explain the observed luminosity of W3A. (*Chapter 2*)
2. The high resolution and large FOV of the FORCAST images allow us to directly compare the spatial distribution of dust emission with that of different gas tracers. (*Chapters 2 & 3*)
3. Observations of CRRLs with LOFAR will allow us to study the thermal balance, chemical enrichment and ionization rate of the cold neutral medium from degree-scales down to scales corresponding to individual clouds and filaments in our Galaxy. (*Chapter 4 & 5*)
4. CRRLs will overwhelmingly originate in cold, diffuse clouds. (*Chapter 5*)
5. A good balance between competition and collaboration benefits Astronomy as a whole despite the difficulties it can bring to astronomers as individuals.
6. There is no distinction in Nature between different scientific disciplines, therefore the interaction between Astronomy, Chemistry, Physics and Biology is unavoidable.
7. Astronomy, being a frontier science, drags along technological development.
8. We haven't started to grasp the effects on Astronomy and Science of the technological advances in Computer Science.
9. It is an error of judgment to believe that things in the future will remain the same as in the present.
10. The difficulties encountered when solving problems are often related to the use of wrong tools or the misuse of the right tools.
11. The study of philosophy should be encouraged during a Ph.D.
12. Contradictions are inherent to human nature.

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