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Orion's Dragon and other stories: Feedback by massive stars

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Propositions accompanying the thesis

Orion's Dragon and Other Stories. Feedback by massive stars

1. The observation of multiple line components in the [C II] emission from star-forming regions in the Orion Molecular Cloud suggests that star-forming regions are more complex than current models and extragalactic approaches assume (*Chapters 2 and 6*).
2. Velocity-resolved [C II] observations are an unparalleled means to quantify the mechanical energy input by stellar feedback (*Chapters 3 and 4*).
3. The expansion of the Veil Shell surrounding the Orion Nebula is driven by the wind of the central massive star, whereas the shells of M43 and NGC 1977 expand due to the overpressure in the ionized gas (*Chapters 3 and 4*).
4. [$^{13}\text{C II}$] observations are needed to corroborate the functional dependencies of the [C II] intensity on other gas and dust tracers (*Chapters 5 and 6*).
5. Before attempting to understand other star-forming regions, every new instrument should be aimed at deepening our understanding of the Orion Nebula.
6. Observational astronomical studies greatly benefit from mathematical rigor.
7. The human eye-brain system is arguably the most efficient pattern-recognition system.
8. In 30 years, astronomers will be rendered largely superfluous by Artificial Intelligence.
9. What is commonly called “mental health” is yet another form of madness.
10. Everything that can be phrased in language is not worth to be spoken of.