Paving the path between low- and high-mass star formation : dynamics probed by Herschel far-infrared spectroscopy

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Propositions

accompanying the thesis

Paving the path between low- and high-mass star formation

Dynamics probed by *Herschel* far-infrared spectroscopy

1. The physical structure of shocks along the outflow cavity wall probed by water is similar among low-, intermediate-, and high-mass young stellar objects (YSOs). *(Chapters 4 & 5)*
2. The kinematic differences found in low-mass YSOs between outflowing gas probed by water and mid-J CO are mitigated in high-mass YSOs. *(Chapter 2 & 4)*
3. Turbulent motions in the inner regions of protostellar envelopes increase with the luminosity of the source. *(Chapter 3)*
4. The trends and properties obtained from water and mid-J CO observations from low- to high-mass are robust against sample bias. *(Chapter 5)*
5. Simple models should be used to constrain the plausible parameter space before implementing more complex and detailed models.
6. The definition of a "large and statistically significant sample" varies notably between different fields in Astronomy.
7. Even Astronomy is affected by fashion.
8. Quality should be prioritised over quantity in academia.
9. Finding a healthy work-life-family balance during a Ph.D. is harder than finishing your thesis.
10. Living abroad and travelling help to make you aware of your own unconscious biases.
11. Dutch culture encourages you to learn to ride a bicycle regardless of the weather conditions.
12. "Star Wars" is a soap opera set in space.

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