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.

Irene San José García Leiden, 18 June 2015