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## **A fresh view on carbon radio recombination lines powered by LOFAR**

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Propositions accompanying the thesis  
A fresh view on carbon radio recombination lines  
powered by LOFAR

1. Decametric carbon radio recombination lines can be used to determine distances (*Chapter 2*).
2. Carbon radio recombination lines allow for the mapping of the gas' density and temperature (*Chapter 3*).
3. The ratio between decametric and far-infrared carbon lines is a powerful thermometer (*Chapters 2 & 4*).
4. Telescopes should be calibrated after every hardware modification (*Chapter 5*).
5. Understanding stellar feedback requires observations across the electromagnetic spectrum.
6. Narrow hydrogen radio recombination lines from cold gas are easier to observe below 1 GHz.
7. Observations of sulfur and carbon radio recombination lines could help us measure turbulence in the cold neutral medium.
8. The data, models and source code used to produce a result should be made available to the community.
9. Communication is more productive when we accept we are ignorant.
10. A good cookbook can change your life.

Pedro Salas  
Leiden, April 2019