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Tuning in to star-planet interactions at radio wavelengths

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Propositions accompanying the thesis

Tuning in to star-planet interactions at radio wavelengths

- 1) Detection of radio emission from exoplanets is most favourable near conjunction (Chapter 2).
- 2) The duration that radio emission from a planet is eclipsed by the wind of its host star provides a new way to study stellar winds (Chapter 3).
- 3) Detection of magnetic star-planet interactions can also tell us about the winds of planet-hosting stars (Chapter 4).
- 4) Theoretical models can be used to identify potential planet-hosting stars from radio observations (Chapter 5).
- 5) Direct detection of exoplanets at radio wavelengths is hindered by our lack of knowledge about their magnetic fields.
- 6) Blind searches for signatures of star-planet interactions appear to be more successful than targeted observations.
- 7) The application of observed phenomena on the solar system planets to stellar environments should be done so with caution.
- 8) Treating a tool as a black box can be risky, but is often necessary.
- 9) Confusion is the first step toward clarity.
- 10) Gauging how much time is too much time to spend on a task is a key skill that one should learn.
- 11) There is nothing wrong with asking people for help.