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Distant star formation in the faint radio sky

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Propositions accompanying the thesis

Distant Star Formation in the Faint Radio Sky

1. The faint radio sky almost exclusively harbors distant star formation (*Chapter 2*).
2. Observations of high-redshift submillimeter galaxies clearly demonstrate that the far-infrared/radio correlation depends on galaxy physical properties (*Chapter 3*).
3. Surveys of radio free-free emission provide a new – and consistent – view of star formation in the early Universe (*Chapters 4 & 5*).
4. Synchrotron ageing causes a deficit in the high-frequency radio emission of typical star-forming galaxies at high redshift (*Chapter 5*).
5. Stacking is a powerful tool for pushing available data to their limits, but must be employed with extreme caution.
6. A true understanding of the radio sky requires multi-frequency observations.
7. Any observational result ought to be verified with mock sources and/or simulations.
8. Astronomy is 10% good ideas and 90% better data.
9. The devil is in the details, and the details should be in the appendix (*Chapters 2, 3, 4 & 5*).
10. Politicians would do well to learn from the astronomer's ability to focus on the long term.
11. A creative outlet is valuable in balancing the oftentimes rigidity of science.
12. The true beauty of astronomy is in how it demonstrates our insignificance.

Hiddo Algera
Leiden, September 2021