Propositions accompanying the thesis

Revealing the nature of new low-frequency radio source populations

1. Recent low-frequency radio data in combination with multi-wavelength observations challenges the taxonomy of diffuse radio sources in galaxy clusters (Chapter 2,3,4).

2. A well established flux scale for radio images is essential to properly interpret the nature of diffuse radio sources (Chapter 2).

3. The currently known fossil radio plasma sources in galaxy clusters are just the tip of the iceberg of the population (Chapter 3,4).

4. Extremely deep LOFAR observations will provide new insights into the nature of radio-quiet quasars, distant star-forming galaxies, high- redshift clusters and faint diffuse radio sources (Chapter 5).

5. Scientists that work with diffuse radio sources in galaxy clusters should take into account that planets can also exhibit steep radio spectra.

6. Understanding the systematics of an instrument is an essential part of astronomical research.

7. The scientific potential of future generation radio telescopes such as the Square Kilometre Array (SKA) can only be reached in close collaboration with computer scientists and software developers.

8. Scientifically it is extremely beneficial for both theorists and observers to work with each other.

9. Rock climbing can teach us that we are capable of so much more than we can ever imagine.

10. The concept of 'working from home' will remain popular.

11. Music is one of the best 'medicine' and does not have side effects.

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