Review of: "Investigations on Input Impedance and Radiation Pattern of a UWB Antenna for Microwave Imaging"

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Potential competing interests: No potential competing interests to declare.

1. It's worth noting that despite the mention of microwave imaging in the title, the research does not explore this application in the presented results.
2. I recommend against describing each paper in the related work section and including figures of their results. Instead, I suggest focusing on analyzing each work by highlighting its advantages and disadvantages. This approach would provide sufficient information for readers to understand the significance of each work without overwhelming them with unnecessary details.
3. I recommend adding more recent related work to your paper. I noticed that many of the references cited are dated more than five years ago.
4. Your paper presents a variety of related works, which is commendable. However, I noticed that there is no comparison with these works in terms of your proposed conception. To enhance the clarity and understanding of your contribution, I suggest adding a comparative table that juxtaposes your proposed conception with the existing related works.
5. Regarding figures 23 and 24, there appears to be redundancy. Figure 24 already displays both simulated and measured results, making figure 23 potentially unnecessary. Additionally, I'm uncertain why there are differences between the simulated results in the two figures. Could you clarify if they are based on the same simulation methodology?
6. In the section titled 'Investigations on How to Improve the Directivity of the Proposed Antenna,' you stated that "The results are analyzed in the following subsections." However, upon reviewing the subsequent subsections, I did not find the analysis of the results as indicated. It would greatly enhance the clarity and completeness of your paper if you could provide the analysis as promised.
7. Additionally, I noticed that the effects of increasing the size of the reflector by 30% and 50% were not explicitly mentioned. It's crucial to include this information to fully understand the implications of your findings.
8. Furthermore, I suggest consolidating figures 27 and 29 into one figure and figures 28 and 30 into another. This consolidation will facilitate a clearer comparison between them.