Review of: "Reconfigurable Intelligent Surface Constructing 6G Near-field Networks"

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Potential competing interests: No potential competing interests to declare.

The paper provides an overview of the research landscape on RIS in near-field communication regimes and its potential impact on 6G networks. However, the contribution has significant room for improvement as, currently, the work appears to be quite preliminary.

Comments:

- The complete absence of figures limits the impact of the paper. Including figures that describe use cases or propagation conditions would significantly enhance presentation and engagement.

- The paper either limits or lacks formulas. The only formulas found describe the near-field conditions. Additional formulations should be provided, such as how channels and array response vectors are described in both near-field and far-field regimes. For example, the section on near-field channel modeling would greatly benefit from additional formulations.

- Several sections, such as 5.2 and 5.3, present discussions as listed points. These lists briefly represent relevant aspects but lack detailed discussion. It is recommended to consider presenting these points in more schematic tables while developing discussions from these lists within the text. This would enhance the added value of the paper.

- The paper currently does not include any simulation results or qualitative plots.

- An important and emerging research area related to RIS in near-field conditions is wavefront engineering. The authors are strongly encouraged to incorporate works in this regard, such as those on Airy beams, Bessel beams, and reconstructing beams with RIS.