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

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Potential competing interests: No potential competing interests to declare.

This paper aims to provide a concise overview of near-field principles along with a systematic examination of the latest advances in RIS-driven near-field technologies. Specifically, it focuses on three key areas: how RIS can be used to create pervasive near-field wireless environments, novel near-field frameworks for 6G networks that incorporate RIS, and challenges associated with RIS-based near-field technologies. The goal of this technical review is to advance and encourage further innovative exploration in the domain of RIS-oriented near-field technologies.

Overall, the paper is well-written, and the topic is interesting. This reviewer commends the author's contributions and only has minor comments.

1 In the literature review part, the authors are suggested to also discuss some hardware challenges and wideband challenges in NFC systems. Please refer to the recent near-field overview work, see "Near-field communications: research advances, potential, and challenges," IEEE WC.

2 Also, the recent extension of RIS, stacked intelligent metasurface (SIM, RIS 2.0), is capable of realizing signal processing as the waves propagate through the SIM. Please refer to "Stacked Intelligent Metasurface-Aided MIMO Transceiver Design," IEEE WC. This is may be promising for ELAA systems. It may be interesting to provide some basic insights into this potential combination of stacked intelligent metasurfaces and near-field communications for motivating future research.