Review of: "Designing and modeling microwave photonic spectral filters based on optical microcombs"

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Potential competing interests: No potential competing interests to declare.

1. How do the identified experimental errors in the error analysis section impact the overall accuracy and performance of microcomb-based MWP transversal filters? Are there specific sources of error that notably affect the filter's response?

2. Within the section discussing the influence of signal bandwidth, what specific limitations does the comb spacing and operational bandwidth impose on the performance of microcomb-based MWP transversal filters? How do these limitations affect the filter's ability to handle signals of varying bandwidths?

3. Can you provide further explanation regarding the observed differences between the filter outputs with and without experimental errors in the performance evaluation section? How do these differences affect the practical application and real-world performance of the filter?

4. According to the presented simulation results, what are the significant strengths and weaknesses of microcomb-based MWP transversal filters in comparison to traditional signal filtering methods? How do they perform in terms of accuracy, efficiency, and frequency range?

5. Given the theoretical principles and system components discussed in the theory and system design section, are there potential modifications or enhancements that could enhance the performance of microcomb-based MWP transversal filters? How might these changes address the identified limitations and improve their practical utility?

6. How do the findings and conclusions of this research align with the existing body of literature on microcomb-based MWP transversal filters? What new insights or advancements does this work bring to the field of microwave signal processing?

7. Regarding future research directions, what specific areas require further investigation concerning microcomb-based MWP transversal filters? How can these filters be optimized or customized for specific applications, such as communications, radar systems, or signal analysis?