

Dear Editors,

In recent years, object tracking methods for remote sensing images have received widespread attention. Benefiting from the flight capability and portability of drones, object tracking methods for ground, sea, and airspace using UAV have become a current research hotspot.

We would like to submit the enclosed manuscript entitled "MambaUT: A Mamba-Based Unsymmetrical Network for Efficient UAV Object Tracking".

No conflict of interest exists in the submission of this manuscript. I would like to declare on behalf of my co-authors that the work described was original research that has not been published previously, and not under consideration for publication elsewhere, in whole or in part. All the authors listed have approved the manuscript that is enclosed.

The main contributions of this manuscript are as follows:

- 1) We propose a novel Mamba-based Unsymmetrical Tracking paradigm, named MambaUT, which effectively integrates the advantages of both Siamese networks and one-stream algorithms. It achieves high-precision tracking while significantly reducing redundant computations.
- 2) We design a novel dynamic state interaction operation to enable lightweight relational modeling. In addition, we introduce an Elastic Fusion Module to enhance the algorithm's multi-scale feature perception capability in a lossless manner.
- 2) Multi-frequency Matching Network is introduced, which comprehensively models both high- and low-frequency information from the response map and integrates prior information, thereby enhancing the tracking algorithm's capability to differentiate between foreground and background.
- 3) Extensive evaluations on several authoritative UAV object tracking benchmarks validate the outstanding tracking accuracy and computational efficiency of MambaUT. Real-world tests further demonstrate its superior capability on resource-constrained UAV platforms.

We deeply appreciate your consideration of our manuscript, and we look forward to receiving comments from the reviewers. If you have any queries, please don't hesitate to contact me at the address below.

Thank you and best regards.

Yours sincerely,

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