In their paper ‘Practical Quantum Sensing with Thermal Light’, Tan et. al. discuss and demonstrate optical range finding using a sub-threshold laser diode, based on the temporal HBT effect.

I found the paper to be well-written and the experimental results are convincing. However, for the reasons detailed below, I do not think the manuscript meets the PRL criterion of ‘substantially advance fundamental or applied physical science’.

My main concern is related to novelty. The abstract, introduction and summary sections of the Letter give the impression that this is the first use of temporal correlations in thermal light for range finding. Looking closely at reference [15], which is unfortunately only cited in the caption of figure 1, it seems to me that the idea of using thermal light for range finding was suggested (and demonstrated in a different setting) already.

Moreover, while it seems that this work does present a technical improvement over previous works, as the authors mention, the idea of using sub-threshold laser diodes for generating thermal light is not new by itself.

I therefore think this manuscript is better suited for publication in a more specialized journal, after major revisions that would make the novelty of this work compared with previous demonstrations clearer.

In addition, some more technical comments should be addressed as well:

1. In the introduction, the authors write: ‘We demonstrate quantum sensing using a relatively simple thermal light source based on a sub-threshold diode laser.’. The meaning of quantum sensing in this context is not completely clear to me. What is quantum about this result?
2. The authors chose to work at a current very close to the threshold of the diode. Could they comment on the reasons and trade-offs leading to the choice of the particular current?
3. Adding a more detailed comparison of the accuracy and signal to noise ratio of this method compared with common others could be useful. The comparison with SPDC sources for example is given mainly in terms of spectral density.
4. The authors should comment on the applicability of this method for real-life scenarios. In the current experiment, a retroreflector is used as a target, probably in order to enhance the returning signal. What are the limits of the current method and source for real targets? How does it compare to current state-of-the-art schemes?