

Review of *Remotely sensed optical time series for monitoring vegetation productivity*.

Overall, I think the authors did a good job at reviewing the state of the literature surrounding using EO for time-series analyses of productivity. While it was quite long, even for a review paper, it read well and contained a lot of interesting information.

I do feel as if there could be some minor improvements made to various aspects of the paper regarding the following sections:

- The systematic literature review is a bit lengthy while adding relatively little to the overall paper. I believe it could be retained but shortened. For instance, the figures could be compressed into one, multi-panel figure. Figure 8 could be removed. And overall writing could be more efficient.
- Some advances have been made in linking RTMs with DVMs and at least some of them should be cited. A few that I know of:
  - Shiklomanov et al., 2021.
  - Wang et al., 2021, Braghieri et al., 2023 (and other papers regarding the CLIMA Land model).
  - Poulter et al., 2023.
    - Full disclosure, I am a coauthor on one of these publications, but I leave it up to the authors to discern and cite the most relevant ones.
- There are a number of current and future missions missing from figure 3, such as EnMAP, EMIT, PACE, and SBG (to name a few).
- “NBP” is missing from the productivity definition box but is discussed later on. Along these lines, figure 13 doesn’t quite make sense to me. Is this saying that NBP is 0.5% of GPP?
- Figure 7 could be improved.