

# Review of: "Algal bloom monitoring in Koka Reservoir, Ethiopia: Application of satellite remote sensing algorithms"

Ruiheng Zhang<sup>1</sup>

<sup>1</sup> Beijing Institute of Technology

**Potential competing interests:** No potential competing interests to declare.

This paper intends to monitor the toxic cyanobacteria blooms with the spaceborne remote sensing technique. The floating algal index (FAI) derived from Sentinel-2 MSI and Landsat-8 OLI imagery has been cross-validated and relations between the FAI and normalized difference chlorophyll index (NDCI) from the Sentinel-2 MSI have been investigated.

1. The introduction section should focus more on the objective and significance of your research rather than the method used in the experiment.
2. Since there are not many novelties in the algorithms used for bloom monitoring, I would suggest the authors move the basic descriptions of the FAI and MDCI indices (introduction section) into the methodology section and meanwhile add some equations about these two indices for clarity.
3. It is better to add some illustrations of the collected dataset in the dataset section to give an intuitive expression.
4. I strongly suggest the author separate the result part into sub-sections based on different experiments (sensor types, times, locations, etc.) so that the discussion can be better carried out accordingly.
5. Based on your results, it seems like the FAI and NDCI derived from spaceborne remote sensing data can be affected by multiple factors. So how can you give a promise to the applicability of the remote sensing algorithm? You have to admit that the main purpose of using remote sensing algorithms is to reduce the time and labor involved compared to the in-situ methods when dealing with large-scale monitoring.
6. Some related works are missing. [1] [Improved Model-Based Forest Height Inversion Using Airborne L-Band Repeat-Pass Dual-Baseline Pol-InSAR Data](#) [2] [Deep-learning-based burned area mapping using the synergy of Sentinel-1&2 data](#)