

Response to Review 1

(Review comments in *Italic*, response in upright Roman)

The manuscript describes a dataset measured by the Lake Taihu Eddy Flux Network which consists of seven eddy covariance (EC) flux stations over Lake Taihu and one EC flux tower over the land as a reference. Although EC flux measurements over inland waters have increased worldwide, such a flux network over a single lake is rare. Besides the uniqueness of the dataset stated in the manuscript, it could provide a valuable perspective in terms of spatial variability in fluxes and associated controlling factors. The dataset should benefit to broader communities in micrometeorology, hydrology, remote sensing, water resource managements, and modeling to name a few. The descriptions of the sites, instruments, and methods are clear and adequate. The dataset is of high quality as also reflected by their published research articles (I read most of them in the past). The manuscript is well written and structured. I would recommend its publication.

Thank you.

Here are a few minor comments:

I understand water levels vary, but would it be good to provide the lake bathymetry also with the tower locations to give users a better understanding of the lake?

Do you have water level measurements or provide information that helps users to find how water levels vary?

The daily water level is monitored by the TAIHU BASIN AUTHORITY at five locations around the lake (<http://www.tba.gov.cn/slbthlyglj/sj/sj.html>), as shown in Figure R1 below. Using this time series, we have constructed the water depth for our eddy covariance sites (Figure R2, added to the revision as Figure 2).

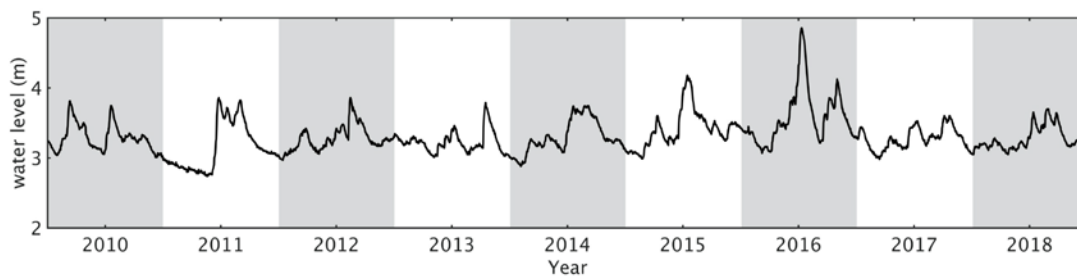


Figure R1. Daily water level (above local sea level) in Lake Taihu

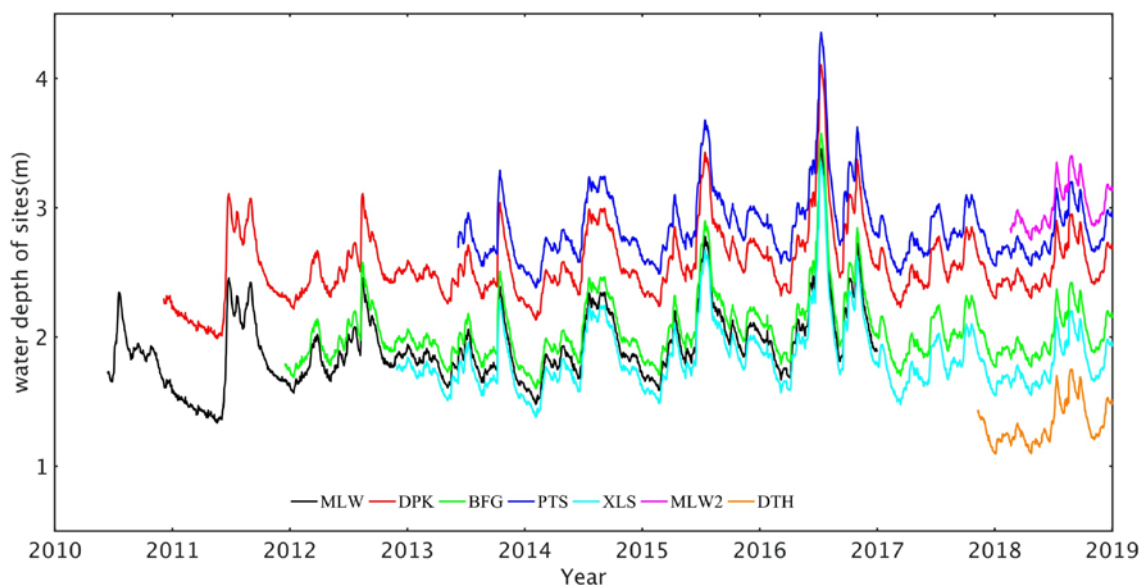


Figure R2 Water depth at the eddy covariance sites

We have added the following text to the revision:

“The lake water level is monitored daily by the Taihu Basin Authority (<http://www.tba.gov.cn/>) at five locations around the lake. Using the water-level time series, we have constructed the water depth for our eddy covariance sites (Figure 2).”

Line 130-131: This may be a little bit misleading since the heights for the lake sites vary from 3.5 to 9.4 m and the EC height for the land site is 20 m.

Thank you. This sentence has been changed to “The EC instrument is at a height of 3.5 to 9.4 m above the water surface at the lake sites and at a height of 20 m above the ground at the land site.”

Please explain how you keep these sensors in such fixed depths.

We have added the following explanation:

“The top four sensors were tied to a nylon rope hanging from a buoy to ensure that they were at the designed depths regardless of water level fluctuations.”