Review of "**Toward an open-access of high-frequency lake modelling and statistics data for scientists and practitioners. The case of Swiss Lakes using Simstrat v2.1**", by Gaudard et al.

General Comments

In this paper the authors describe the development of an openly accessible web-based platform for visualization and data access of 54 lakes modelling in Switzerland. The lake modelling is conducted with a one-dimensional lake model Simstrat v2.1, which is the core scientific component of this paper. The other important component of this paper is the lake modelling platform, which is beneficial to both the general public and researchers. It is good that both components are included in this study; nevertheless, both components are not thoroughly introduced. As a scientific publication, higher portion of new scientific modules in Simstrat v2.1 and using Simstrat v2.1 for the scientific findings in a single event or from long-term climatic trends can benefit this paper.

Specific Comments

1. The drawback of one-dimensional lake model is the lack of water circulation; nevertheless, the thermal dynamic in the lake can be very different from small lake to large one. Surface of the 54 studied lakes ranges from 0.102-km^2 of Lake Inkwilersee to 580-km^2 of Lake Geneva, which are quite diverse in horizontal dimension. It is not mentioned in the paper about the limitations and differences of applying one-dimensional Simstrat v2.1 to small and large lakes.
2. In this study, four parameters among 46 lakes were calibrated. Now only the temperatures of post-calibration root mean square error were described. It would be good to summarize the calibrating processes, and the physical meanings of the calibrated parameters and its relationship to lake area and lake characters.
3. P4, L1~5: In this study, the light absorption coefficient plays an important role determining incoming heat flux. Is there any reference, except current cited one (Poole and Atkins, 1929), using similar parameterization?
4. P4, L6: What is the percentage of the missing forcing data in this study? And what is the impact of discrepancy in the model?
5. P4, L10~11: It is not clear how the variable "cloud coverage" is used in the model, as the measured solar radiation is available.

6. P4, L13~14: Are all the lakes initialized for temperature and salinity using CTD profiles?
7. P5, L13: Why the platform is automatically updated with a weekly frequency?

Textual Comments

1. P4, L27: Missing a comma ",” between the heat capacity of water and the volume of the lake.