

Application of FLake on the Lake Balaton

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Behaviour of the FLake model is examined for the case of Lake Balaton. With a surface area of 592 km^2 , Lake Balaton is the largest lake in Central Europe, while its mean depth is only 3.3 m. The lake is polymictic, it has no thermal stratification in the classical sense, however at times the temperature difference between its surface and its bottom can reach $4 \text{ }^\circ\text{C}$. When this kind of micro-stratification appears, temperature tends to change progressively from the surface to the bottom, without a characteristic fully mixed layer.

Off-line simulations, initialised from observed lake temperatures, driven by observed or forecasted atmospheric forcing from the ALADIN NWP model, were used to assess if FLake can provide a satisfactory description of the lake.

Status of the work and preliminary results are presented at the workshop.