

Multi-column modelling of lake Geneva for climate applications

Supplementary figures

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ABSTRACT

This Supplementary Material gathers supplementary figures

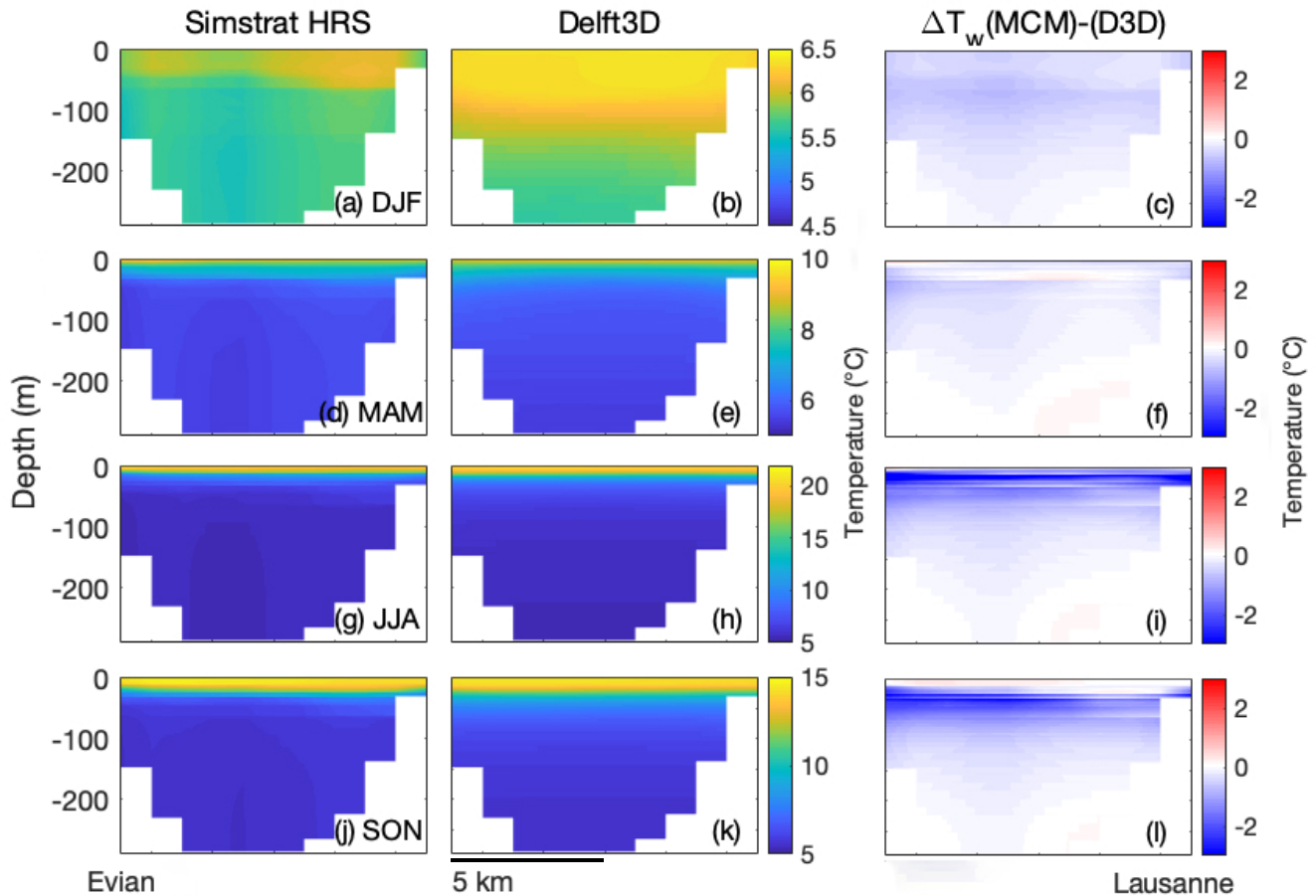


Figure S1. Season-averaged N–S transects (See Fig. 1) for MC-Simstrat (col 1), Delft3D (D3D, col 2), and the difference MC-Simstrat–Delft3D (col 3). (a–c) Winter (DJF), (d–f) Spring (MAM), (g–i) Summer (JJA), (j–l) Autumn (SON). See Figure S3 for monthly details.. Plots generated with Matlab¹; Panels assembled with Adobe Illustrator²

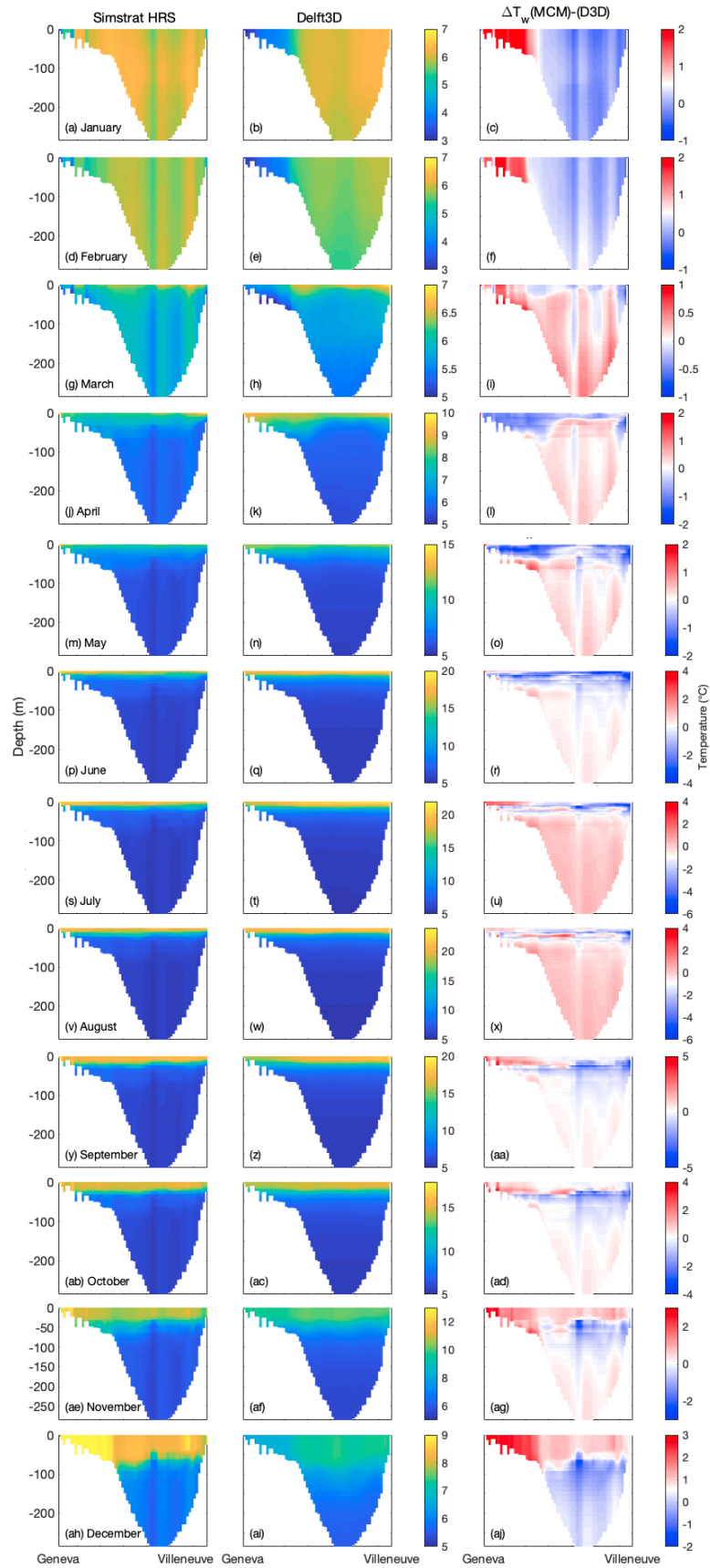


Figure S2. Monthly-averaged W-E transects (See Fig. 1) for MC-Simstrat (Column 1), Delft3D (Column 2), and the difference MC-Simstrat–Delft3D (Column 3). Months are sorted from January to December. Plots generated with Matlab¹; Panels assembled with Adobe Illustrator²

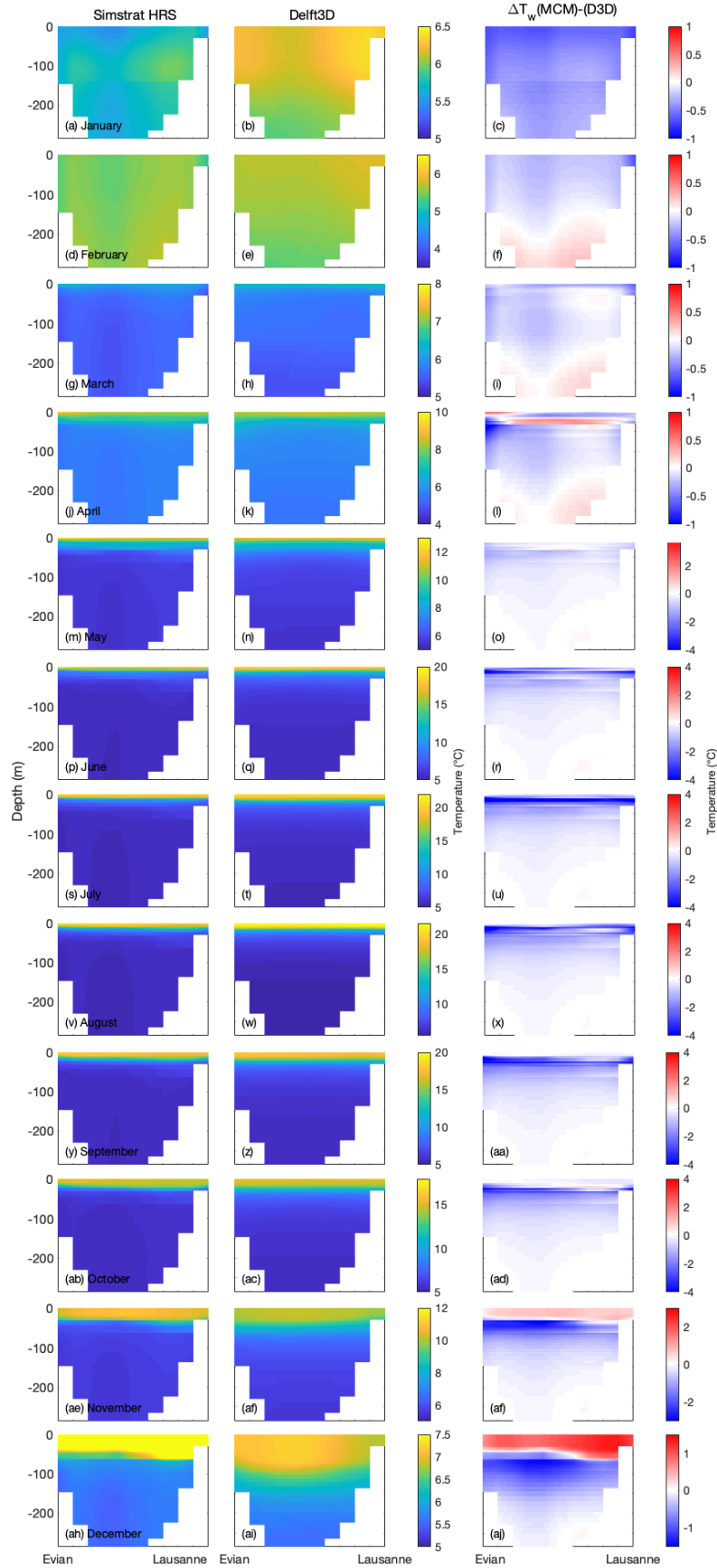


Figure S3. Monthly-averaged N–S transects (See Fig. 1) for MC-Simstrat (Column 1), Delft3D (Column 2), and the difference MC-Simstrat–Delft3D (Column 3). Months are sorted from January to December. Plots generated with Matlab¹; Panels assembled with Adobe Illustrator²

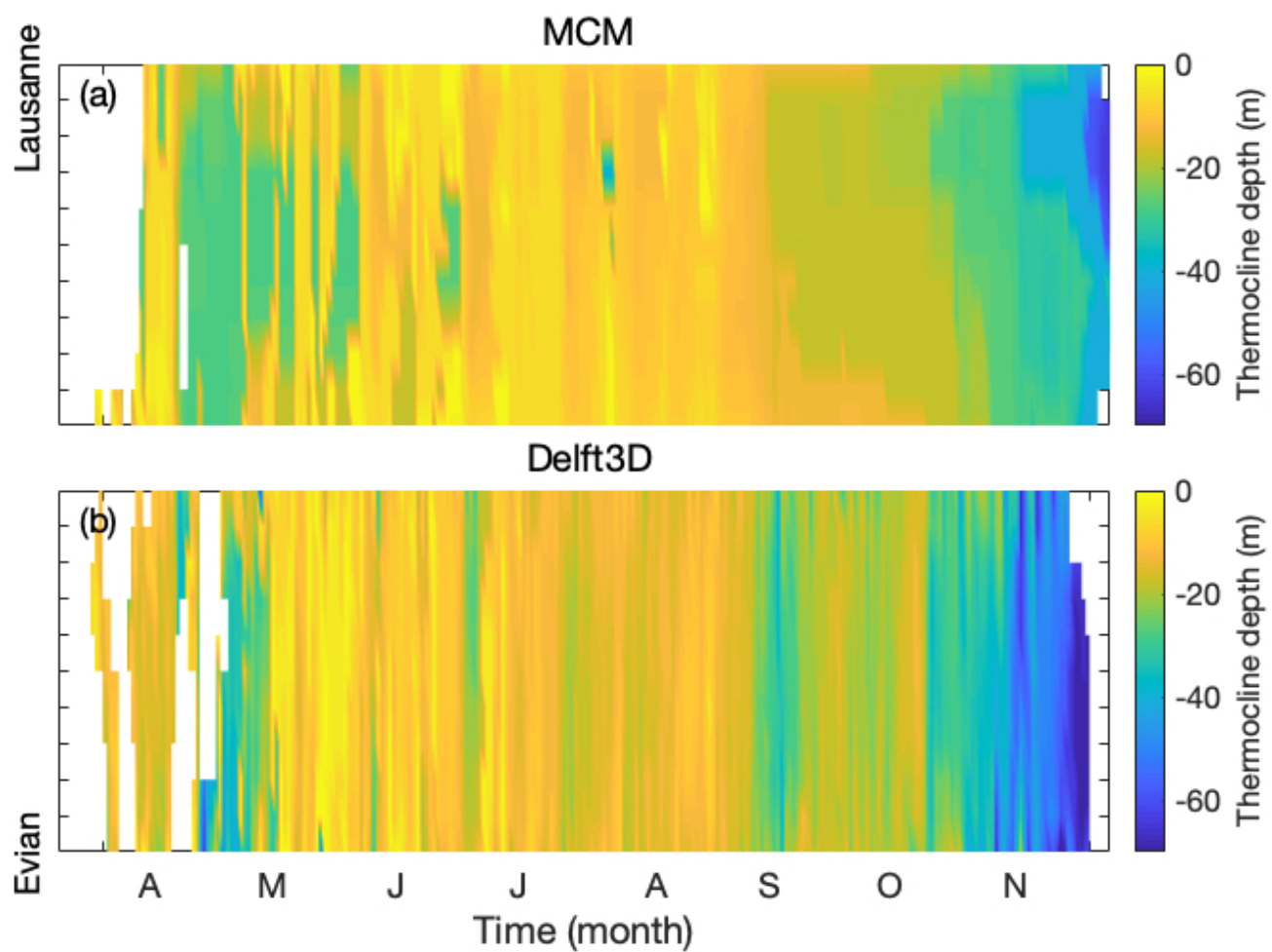


Figure S4. Temporal evolution of the thermocline depth over the the N-S transect, as simulated with (a) MC-Simstrat and (b) Delft3D. Plots generated with Matlab¹; Panels assembled with Adobe Illustrator²

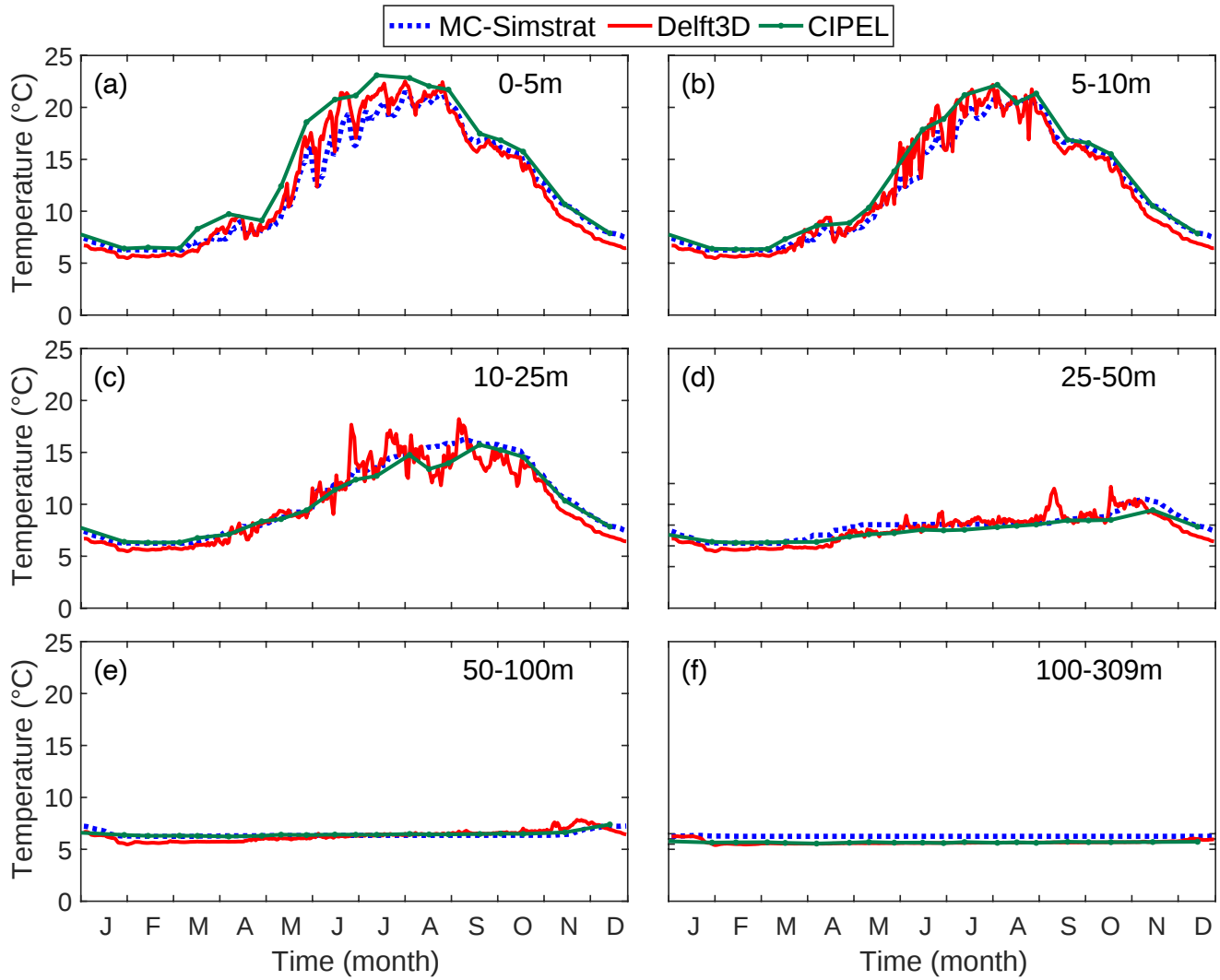


Figure S5. Evolution of the temperature simulated by MC-Simstrat (using the drag coefficient parametrization of Eq. (2) and Delft3D at 1100 UTC at station SHL2 at (a) the surface (0–5 m), (b) 5–10 m, (c) 10–25 m, (d) 25–50 m, (e) 50–100 m, (f) 100–309 m. Plots generated with Matlab¹; Panels assembled with Adobe Illustrator²

References

1. Matlab r2018b, <https://www.mathworks.com/products/matlab.html>.
2. Adobe illustrator 2021, <https://www.adobe.com/fr/products/illustrator.html>.