## Model set up



A schematic overview of the model set-up. The unlabelled fluxes are balancing fluxes, Qo, D1 and D2 are driven by density differences. The direction of the arrows indicates the positive direction in the equations, all horizontal fluxes can change direction.

Full paper in press, the discussion version of the paper (Dirksen and Meijer, 2019) can be found in the link below. https://www.clim-past-discuss.net/cp-2019-128/



Dirksen, J. P. and Meijer, P.: The mechanism of sapropel formation in the Mediterranean Sea: Insight from long duration box-model experiments, Clim. Past Discuss., https://doi.org/10.5194/cp-2019-128, in review, 2019.

## Result



The forcing and results of the reference run. (A) The model forcing, with the river outflow on the left axis and the E-P, E-P-R and fresh water budget of box 1 on the right axis. (B)-(D) For each box respectively the salinity, temperatures, and densities. (E) The relevant fluxes (left axis) and the deep water oxygen concentration (right axis).

Full paper in press, the discussion version of the paper (Dirksen and Meijer, 2019) can be found in the link below. https://www.clim-past-discuss.net/cp-2019-128/



Dirksen, J. P. and Meijer, P.: The mechanism of sapropel formation in the Mediterranean Sea: Insight from long duration box-model experiments, Clim. Past Discuss., https://doi.org/10.5194/cp-2019-128, in review, 2019.

## Questions

- Is there more observational support for the role of variations in atmospheric temperature?
- Any suggestions for additional model experiments?