



## Supplement of

## Assessment of the Finite-volumE Sea ice-Ocean Model (FESOM2.0) – Part 1: Description of selected key model elements and comparison to its predecessor version

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## Supplement

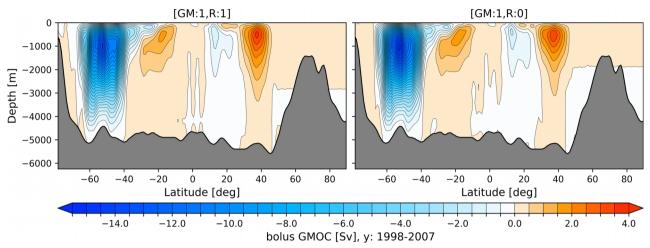


Figure S1: Global Meridional Overturning Circulation (GMOC) associated with the Gent McWilliams vertical bolus velocity, averaged for the time period 1998-2007, for the reference simulation (left) and the simulation in which the Redi diffusivity is set to zero (right).

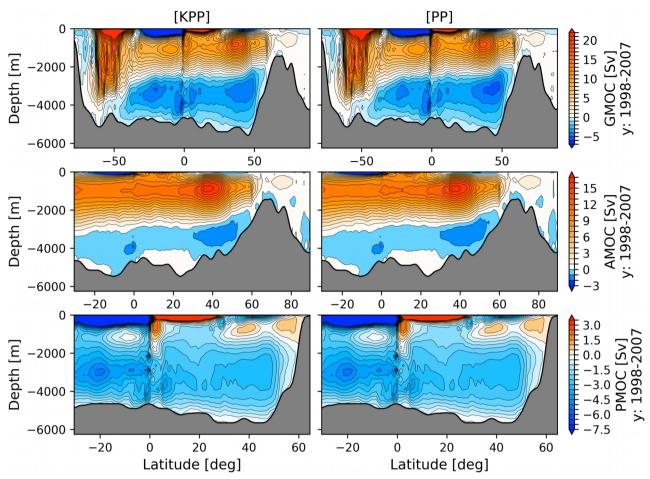


Figure S2: Global (GMOC, upper row), Atlantic (AMOC, middle row) and Indo-Pacific (PMOC, lower row) Meridional Overturning Circulation averaged for the time period 1998-2007 for the simulations with KPP (left column) and PP (right column) vertical mixing.

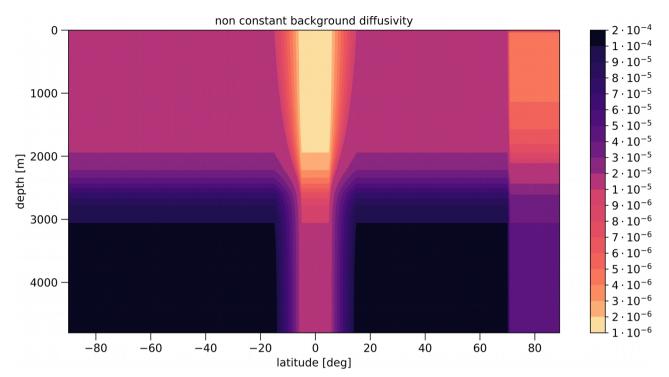


Figure S3: Depth and latitude dependent background vertical diffusivity used in PP and KPP vertical mixing scheme.

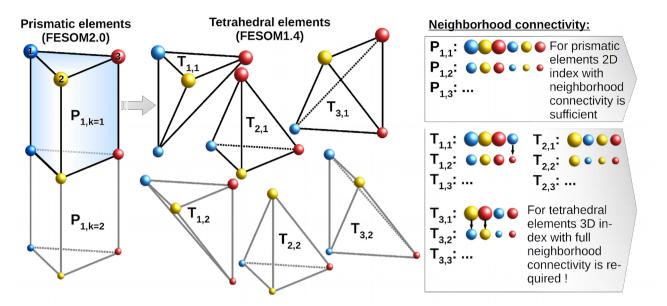


Figure S4: Schematic representation of neighborhood connectivity between prismatic and tetrahedral elements.