

Comments on

1. Kernel WG

The highest priority work is on the implementation of the new time-stepping. This involves Andrew C, Dave S, Florian, Gurvan, Jerome and Mike B. The precise actions are still to be determined (but an informal group is coordinating them)

There is an IMMERSE action to develop a range of options for calculation of the horizontal pressure force. These will be based on line integrals (Shchepetkin & McWilliams 2005) or face integrals (Lin 2003), using finite volume and higher order accuracy methods for interpolation and integration.

There are also IMMERSE actions to assess the need for (and possibly develop) ALE algorithm functionalities within NEMO. These will not appear explicitly in the WP2020.

The work on the kernel is in line with the NDS.

2. HPC WG

Extended halo with the potential to use wider haloes in some routines (e.g. to calculate the external mode and sea-ice stresses): Italo & Francesca with Seb as reviewer

DO loop macros & 2D tiling: Daley Calvert & Andrew C with Gurvan as reviewer. This work will be done on the LFRA version of stp.

Mixed precision: Oriol (BSC) & Sam (ECMWF) with Seb & Mike B as reviewers

There will also be work on adaptation of NEMO for GPUs by Mirek, Andrew P and Wayne G. This may not appear as an explicit action (tbc).

The work on HPC is "in line" with the NDS.