DRAKKAR WORKSHOP 2017 - DRAFT AGENDA (last update: 21 December 2016)

Time for presentations. Unless specified, **Talks are 20mn**: **15mn for presentation** and **5mn for discussion/questions**. Since the workshop aims to preserve discussion time, you must **be strict on the 15mn presentation time**.

Monday 16 January

8h30-8h50: Welcome (with coffee and pastries)

8h50-9h00: Introduction

SESSION 1: Benefits of high resolution to the science made with ocean/sea-ice models

9h00-10h30: 4x20mn talks – Convener: Thierry Penduff

North Atlantic: Rapporteurs: Torge Martin & Guillaume Mazé

1. Yevgeny Aksenov (NOC - Southampton): Arctic Pacific water dynamics from model inter-comparison and observations.
2. Paul Myers (U Alberta - Edmonton) : Pan-Arctic Exchange, the Labrador Sea and the AMOC
3. Claudia Wekerle (AWI - Bremerhaven): Eddy-resolving simulation of the Atlantic Water recirculation in the Fram Strait.
4. Clark Pennelly (U. Alberta - Edmonton): Numerical modeling in the northern Atlantic: Labrador Sea freshwater and model sensitivity to atmospheric forcing.

10h30-11h00: coffee break

11h00-12h30: 4x20mn talks – Convener: Klaus Getzlaff

Southern and Global Ocean: Rapporteurs: Torge Martin & Guillaume Mazé

5. Nicolas Jourdain (IGE – Grenoble): Impact of ice-shelf melt on the Amundsen Sea circulation and sea-ice.
6. Lavinia Patara (GEOMAR – Kiel): Southern Ocean eddy activity and transient tracer uptake in the past 50 years in eddy-rich ocean simulations.
7. Nacho Merino (IGE – Grenoble): Impact of increasing Antarctic glacial freshwater release on regional sea-ice cover in the Southern Ocean.
8. Joël Hirshi (NOC – Southampton): On the persistence of mesoscale features in satellite altimetry and ORCA12.

12h30-14h00: Lunch (and Group Picture)

14h00-15h30: 4x20mn talks – Convener: Claude Talandier

Submesoscale permitting resolution: Joël Hirshi & Thierry Penduff

9. Clément Rousset (LOCEAN-Paris, 10 mn): LIM3 (expected).
10. René Schubert (GEOMAR – Kiel): Prevalence of Instability-Driven Benthic Storms in the Western North Atlantic.
11. Eric Chassignet (FSU – Tallahasse, 30 mn): Global 1/12° HYCOM interannual simulation with Drakkar atmospheric forcing and Impact of horizontal resolution (1/12° to 1/50°) on Gulf Stream separation and penetration in a series of North Atlantic numerical simulation.
12. Julien Le Sommer (IGE- Grenoble): Sensitivity of resolved fine scales to model parameters in the submesoscale range: lessons from NATL60.

10h30-11h00: coffee break

SESSION 2: Atmospheric driving of eddying OGCMs

Rapporteurs: Adam Blaker & Florian Lemarié (or Gilles Garric)

16h00-17h30: Session 1 - 4x20mn talks – Convener: Laurent Brodeau

13. Alex Megann (NOCS - Southampton): Evaluating Forcing Datasets for late 20th-Century NEMO integrations.
14. Gilles Garric: (Mercator Océan – Toulouse): Evaluation of 7 atmospheric datasets in the Arctic Ocean over the period 2007-2014.
15. Rafael Abel (GEOMAR – Kiel): Feedback of mesoscale ocean currents on atmospheric winds in high-resolution coupled models and implications for the forcing of ocean-only models.
16. Lionel Renault (UCLA): Surface current feedback: which strategy is the best to force a high-resolution ocean model?

17h30-18h30: Discussion No1 - Lead: Anne Marie Tréguier

Focus: Lessons learned from high resolution simulations. The discussion will be introduced by a 10mn presentation from:

Anne Marie Tréguier (LOPS- Brest): Lessons learned from global mesoscale-resolving modelling: a personal view.

19h00: Diner at NoName Café

Tuesday 17 January

SESSION 3: The eddy-permitting regime

9h00-10h30: Session 3 - 4 x20mn talks – Convener: Qiang Wang

¼° chaotic variability: Rapporteurs: Alex Megann & Lavinia Patara

17. Graeme MacGilchrist (U. of Oxford): Characterising chaotic ventilation of the ocean.
18. Stephan Juricke (U. of Oxford): The Random Ocean: Development, implementation, and investigation of stochastic ocean parametrizations.
19. Guillaume Sérazin (LEGOS – Toulouse): A global probabilistic study of the Ocean Heat Content low-frequency variability: atmospheric forcing versus oceanic chaos.
20. Thierry Penduff (IGE – Grenoble): Atmospherically-modulated oceanic chaos; observational implications.

10h30-11h00: coffee break

11h00-12h30: Session 3 - 4x20mn talks – Convener: James Orr.

¼° dynamics. Rapporteur: Lavinia Patara & Alex Megann

21. Jan Klaus Rieck (GEOMAR – Kiel): Decadal Variability of Eddy Kinetic Energy in ORCA025 - Sensitivity Studies
22. Guillaume Maze (LOPS - Brest): Eddy-permitting ORCA025 representation of large-scale stratification features in the North-Atlantic.
23. Jens Terhaar (LSCE-IPSL – Orsay): Simulated anthropogenic carbon in the Arctic Ocean in three DRAKKAR model configurations.
24. Julie Deshayes (LOCEAN - Paris): On the ORCA025 configuration at IPSL for use in ESM.

12h30-14h00: Lunch

14h00-15h10: Discussion No2 – Lead: Claus Boning.
Focus: Eddy-permitting models: skills and resisting flaws; priorities for improvements; when and how should we use/not use them?

SESSION 4 - OGCM evolution for basin-scale to global eddying simulations: processes and setups

Processes, *Rapporteurs: Nicolas Jourdain & Yevgeny Aksenov (or Gilles Garric)*

15h10-15h30: Session 4 - 1x20mn Talk – Convener: Rym Msadek

25. Camille Lique (LOPS – Brest): On the importance of vertical mixing for simulating the Arctic Ocean and sea ice states.

15h30-16h00: coffee break

16h00-18h00: Session 4: 5x20mn talks– Convener: Paul Myers

26. Qiang Wang (AWI - Bremerhaven): Arctic-Subarctic Ocean fluxes: mechanisms and oceanic linkage.
27. Torge Martin (GEOMAR – Kiel): What to consider for a high-resolution Enhanced-Greenland-Runoff simulation with NEMO.
28. Marion Donat-Magnin (IGE - Grenoble): Impact of interactive ice-shelves on the ocean response to the SAM trend, and possible feedbacks with the ice-dynamics.

Pause 10mn

29. Pierre Mathiot (UKMO – Exeter): Attempt to separate effects of horizontal resolution and bathymetry resolution using eORCA12 and eORCA025.
30. Pedro Colombo (IGE - Grenoble): Denmark Strait overflow in NEMO: does the type of vertical coordinate matters?

18h00: End of day

Wednesday 18 January

SESSION 4 - OGCM evolution for basin-scale to global eddying simulations: processes and setups

Modelling and simulation practices. Rapporteurs: *Julie Deshayes & Pierre Mathiot*

9h00-10h30: Session 4 : 4x20mn – Convener: Camille Lique.

31. Rémi Tailleux (U. of Reading): Conceptual issues and pitfalls associated with the use of neutral rotated diffusion tensors.
32. Mike Bell (UKMO – Exeter): Spurious baroclinic instabilities on the Lorenz grid.
33. George Nurser (NOC – Southampton): Upper-ocean mixing by Langmuir circulations: implementing the OSMOSIS Ocean Boundary Layer Model into NEMO.
34. Klaus Getzlaff (GEOMAR – Kiel): A series of AGRIF configurations based on NEMO 3.6 using LIM2.

10h30-11h00: coffee break

11h00-12h00: Session 4: 3x20mn – Convener: Chris Roberts

35. Helene Hewitt (UKMO – Exeter): Ocean models for seamless prediction.
36. Laurent Brodeau (BSC-Earth Science – Barcelona): NEMO optimization at BSC.
37. A slot for Gurvan (LOCEAN – Paris): (wished for). If not used, the following discussion will start earlier.

12h00-15h00: Discussion No3 - Lead: Julien Le Sommer

- NEMO

12h30-14h00: Lunch

- Present and future simulation practices with Drakkar configurations
- Recommendation for Drakkar eddy resolving configurations in 2016 and on studies for which coordination is desirable,
- Recommendation of forcing,
- Next Drakkar workshop and meeting conclusions.

SESSION 5 – Ocean-wave model coupling

15h00-18h00: Session 5 - 5x20mn + 1x30mn talks – Convener: George Nurser

38. Fabrice Ardhuin (LOPS – Brest, 25mn): Wave interactions with ocean circulation and sea ice, from a wave perspective.

15h30-16h00: coffee break

39. Xavier Couvelard (LOPS – Brest): Toward improving oceanic forecasts through ocean and waves coupling.
40. Øyvind Breivik (NMI - Bergen): WAVE2NEMO: forcing a regional high resolution NEMO model with WAM fluxes and fields.
41. Stéphane Law-Chune: (Mercator Océan – Toulouse): NEMO forced with MFWAM wave model at Mercator Océan.

Pause 10 mn

42. Emanuela Clementi (INGV – Bologna): NEMO-Wave coupling Working Group: overview and last achievements.
43. Yevgeny Aksenov (NOC - Southampton): Modelling the waves, ocean and ice - A golden key to the future Arctic projections?

18h00: End of meeting

Thursday 19 January

9h00-12h30: NEMO-WAVE Working Group Meeting. Convener: George Nurser.

The meeting will be held in the building of the MEOM Group, in room 103 (first floor).
See Map.