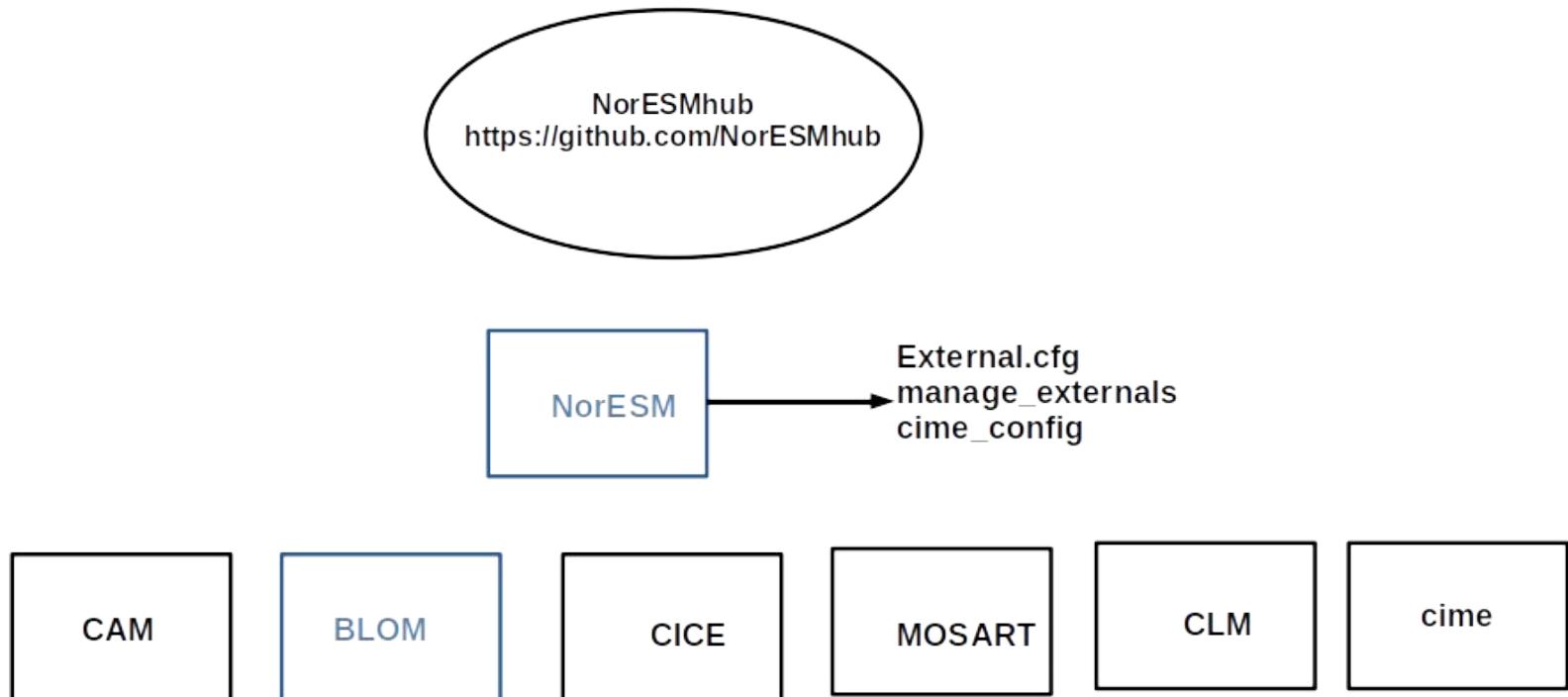


Development workflow

Contribute your own code to NorESM: basic steps

1. Create a user account on GitHub
 - A basic account is sufficient. Note that all NorESM repositories are public by default.
2. Fork NorESM and/or a NorESM model component to your own account
3. Create an issue in the main repository describing the changes you want to make
 - Mainly used for discussions on severe bugs or feature changes, not so much for minor changes (e.g. documentation, small config changes)
4. Make changes in your fork repository
 - To minimize risk of code conflicts, do not make changes directly in branches that duplicate the main repository, but create “throw away” branches for your changes
5. Create a pull request to the main repository
6. Keep things in sync:
 - Remove your “throw away” branches after merging
 - Sync your fork with the main repository

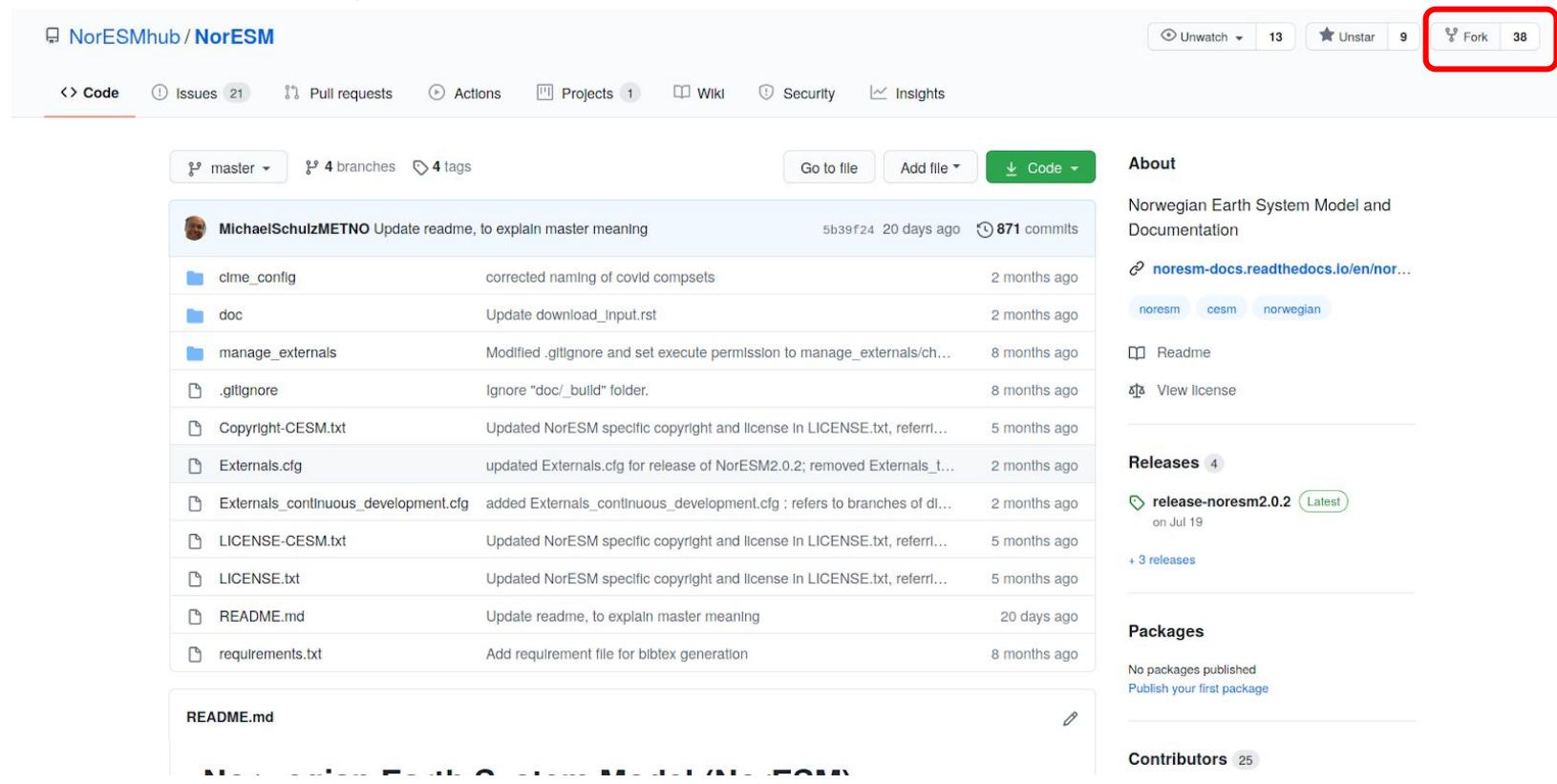
NorESM git repositories



Repository in black are forked from CESM

Fork repository

Fork NorESM from GitHub



NorESMhub / NorESM

Code Issues 21 Pull requests Actions Projects 1 Wiki Security Insights

master 4 branches 4 tags Go to file Add file Code

MichaelSchulzMETNO Update readme, to explain master meaning 5b39f24 20 days ago 871 commits

clme_config	corrected naming of covid compsets	2 months ago
doc	Update download_input.rst	2 months ago
manage_externals	Modified .gitignore and set execute permission to manage_externals/ch...	8 months ago
.gitignore	Ignore "doc/_build" folder.	8 months ago
Copyright-CESM.txt	Updated NorESM specific copyright and license In LICENSE.txt, referri...	5 months ago
Externals.cfg	updated Externals.cfg for release of NorESM2.0.2; removed Externals_t...	2 months ago
Externals_continuous_development.cfg	added Externals_continuous_development.cfg : refers to branches of dl...	2 months ago
LICENSE-CESM.txt	Updated NorESM specific copyright and license in LICENSE.txt, referri...	5 months ago
LICENSE.txt	Updated NorESM specific copyright and license in LICENSE.txt, referri...	5 months ago
README.md	Update readme, to explain master meaning	20 days ago
requirements.txt	Add requirement file for bibtex generation	8 months ago

README.md

About Norwegian Earth System Model and Documentation noresm cesm norwegian Readme View license

Releases 4 release-noresm2.0.2 Latest on Jul 19 + 3 releases

Packages No packages published Publish your first package

Contributors 25

Create an issue : discussion forum for code changes

NorESMhub / NorESM ← in main repository

Issues 21

Pull requests Actions Projects 1 Wiki Security Insights

Label issues and pull requests for new contributors

Now, GitHub will help potential first-time contributors discover Issues labeled with good first issue

Go to Labels

Filters Is:Issue Is:open Labels 10 Milestones 0 New Issue

Author	Label	Projects	Milestones	Assignee	Sort
21 Open	✓ 27 Closed				
clcoagTend output looks bizarre #158 opened on Aug 13 by sarambl 3 comments					
Copyright of documentation #152 opened on Jul 13 by mvhulten 1 comment					
Misleading comment for suuported compsets #147 opened on Jul 1 by oyvindseland 2 comments					
Writing a release note Next release #142 opened on Jun 23 by MichaelSchulzMETNO 1 comment					
OMIP case examples: do we need '--run-unsupported' flag? Documentation #141 opened on Jun 21 by TomasTorsvik 5 comments					

Create a fork : feature branch (highly recommended)

The screenshot shows a GitHub repository page for 'TomasTorsvik / NorESM-TTfork'. A red box highlights the 'Switch branches/tags' dropdown menu, which has 'my_new_feature' selected. The main repository area shows the 'master' branch and several other branches and tags. On the right, there's an 'About' section with details about the Norwegian Earth System Model and Documentation.

Switch branches/tags master

my_new_feature

Branches Tags

Create branch: my_new_feature from 'master'

View all branches

4 branches 4 tags

Go to file Add file Code

Pull request Compare

master

1 commit

d383f35 on Aug 19 870 commits

corrected naming of covid compsets

2 months ago

Update download_Input.rst

2 months ago

About

Norwegian Earth System Model and Documentation

noresm-docs.readthedocs.io/en/nor...

Readme

View license

- **Create a new feature branch before making any changes!**
 - Allows updating of root branch (e.g. "master") without interfering with your own work
- Apply your changes in the feature branch, either directly in the GitHub fork or your local clone of the fork

Review changes : from fork

[TomasTorsvik / NorESM-TTfork](#)

forked from [NorESMhub/NorESM](#)

[Watch](#) 0 [Star](#) 0 [Fork](#) 38

[Code](#) [Pull requests](#) [Actions](#) [Projects](#) [Wiki](#) [Security](#) [Insights](#) [Settings](#)

[my_new_feature](#) had recent pushes less than a minute ago [Compare & pull request](#)

[my_new_feature](#) 5 branches 4 tags [Go to file](#) [Add file](#) [Code](#)

This branch is 1 commit ahead, 1 commit behind [NorESMhub:master](#). [Pull request](#) [Compare](#)

[TomasTorsvik](#) [Update README.md](#) ... [6afcfff](#) 1 minute ago 871 commits

cime_config	corrected naming of covid compsets	2 months ago
doc	Update download_Input.rst	2 months ago

About

Norwegian Earth System Model and Documentation

[noresm-docs.readthedocs.io/en/nor...](#)

[Readme](#)

[View license](#)

Releases

4 tags

Review changes : from “Network”

NorESMhub / NorESM

Unwatch 13 Unstar 9 Fork 38

Code Issues 21 Pull requests Actions Projects 1 Wiki Security Insights

Pulse Contributors Community Traffic Commits Code frequency Dependency graph Network Forks

Network graph

Timeline of the most recent commits to this repository and its network ordered by most recently pushed to.

The diagram illustrates the commit history for the NorESMhub repository. The timeline spans from August 17 to September 22. Several branches are shown merging into the 'master' branch. A red box highlights a specific sequence of commits: a yellow branch merges on Aug 17, followed by a purple branch on Aug 18, a green branch on Aug 19, and a blue branch on Aug 19. These four branches then merge into the 'master' branch on Aug 19. A cyan branch labeled 'my_new_feature' merges into the 'master' branch on Sep 1. The 'master' branch itself has commits on Sep 1, 2, and 22.

Owners

Aug Sep

17 18 19 3 19 27 28 1 22

NorESMhub

TomasTorsvik

DirkOlivie

JensBDebernard

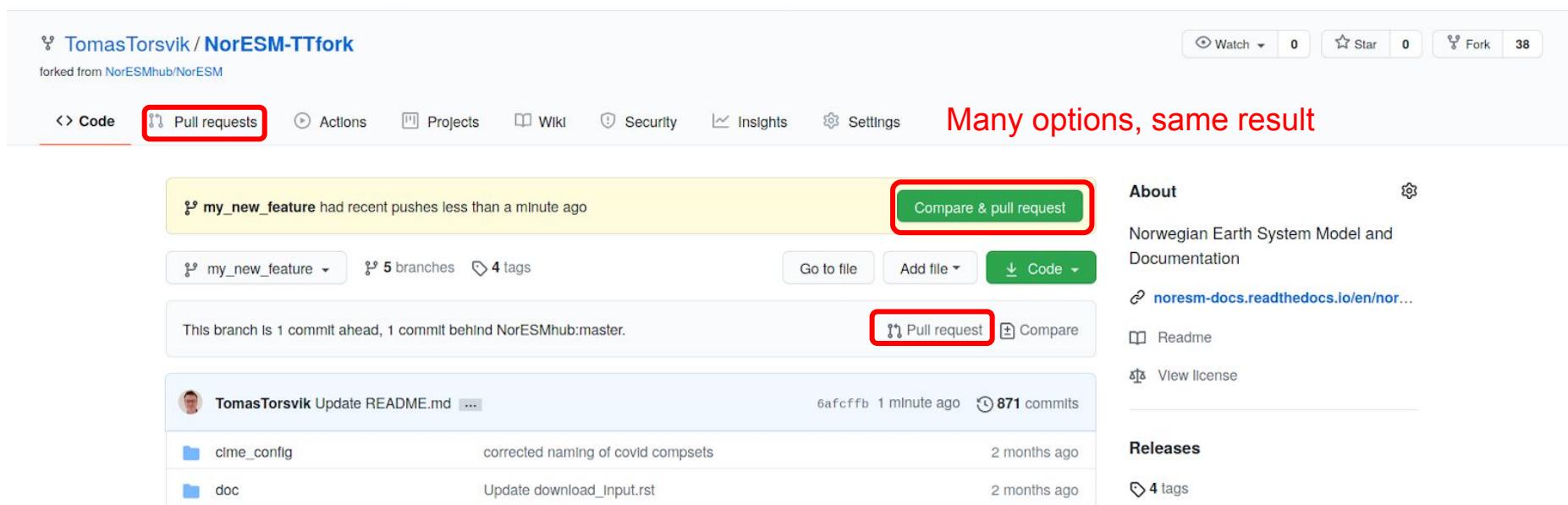
JorgSchwinger

annefou

master

my_new_feature

Create a pull request

 Many options, same result

TomasTorsvik / NorESM-TTfork

forked from NorESMhub/NorESM

Code Pull requests Actions Projects Wiki Security Insights Settings

my_new_feature had recent pushes less than a minute ago

my_new_feature 5 branches 4 tags

Go to file Add file Code

This branch is 1 commit ahead, 1 commit behind NorESMhub:master.

TomasTorsvik Update README.md ... 6afcfff 1 minute ago 871 commits

cime_config corrected naming of covid compsets 2 months ago

doc Update download_Input.rst 2 months ago

About Norwegian Earth System Model and Documentation noresm-docs.readthedocs.io/en/nor... Readme View license

Releases 4 tags

Create a pull request

NorESMhub / NorESM

Code Issues Pull requests Actions Projects Wiki Security Insights

Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also compare across forks.

Destination repo and branch **Source repo and branch**

base repository: NorESMhub/NorESM ▾ base: master ▾ ← head repository: TomasTorsvik/NorESM-TTfork ▾ compare: my_new_feature ▾

✓ Able to merge. These branches can be automatically merged.

Update README.md

Write Preview

Latest documentation version is now pointing to NorESM2.

Attach files by dragging & dropping, selecting or pasting them.

Allow edits by maintainers ?

Create pull request

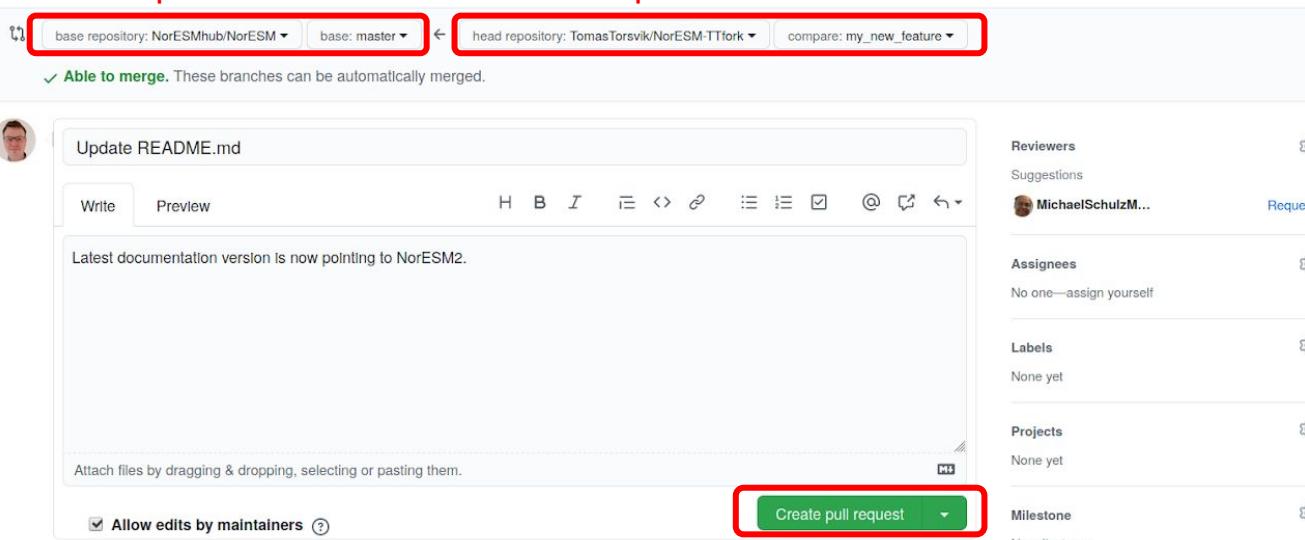
Reviewers Suggestions MichaelSchulzM... Request

Assignees No one—assign yourself

Labels None yet

Projects None yet

Milestone No milestone



Pull request : completed example

Replace MICOM with BLOM in documentation files. #118

Merged TomasTorsvik merged 1 commit into [NorESMhub:noersm2](#) from [TomasTorsvik:replace_micom_with_bлом](#) on Jun 11

Conversation 4 Commits 1 Checks 0 Files changed 1 +2 -2

TomasTorsvik commented on Jun 11 Some, but not all, instances of MICOM should be replaced by BLOM in the noersm2 documentation.

TomasTorsvik added Documentation, Next release labels on Jun 11

TomasTorsvik requested review from YanchunHe and matsbn on Jun 11

TomasTorsvik self-assigned this on Jun 11

TomasTorsvik linked an Issue that may be closed by this pull request on Jun 11 Integration of BLOM in NorESM (instead of MICOM) #102 Closed

matsbn marked this pull request as ready for review on Jun 11

matsbn approved these changes on Jun 11 View changes

Reviewers: YanchunHe, matsbn

Assignees: TomasTorsvik

Labels: Documentation, Next release

Projects: None yet

Milestone: No milestone

Linked issues: Successfully merging this pull request may close these issues. Integration of BLOM in NorESM (instead of ...)

Edit Open with

Pull request : completed example

The screenshot shows the history of a GitHub pull request. It includes:

- A green checkmark icon next to a user's name indicates approval.
- A "View changes" button.
- A commit log entry by **TomasTorsvik** to replace MICOM with BLOM.
- A force-push event by **TomasTorsvik** from branch `b540f66` to `841bfff5`.
- A comment by **TomasTorsvik** stating: "In the meantime `input.rst` changed, so this has been removed from the pull request to avoid conflicts."
- A link removal event by **TomasTorsvik** for issue #102, which was closed.
- A linking event by **TomasTorsvik** for issue #102, which was also closed.
- A merge event by **TomasTorsvik** merging commit `9d34770` into `NorESMhub:noresm2`.
- A red box highlights the final event: **TomasTorsvik** deleting the branch `TomasTorsvik:replace_micom_with_bлом`.
- A "Restore branch" button is visible near the deleted branch event.

Delete “throw away” branch
In personal fork

Keep fork in sync with main repository

The screenshot shows a GitHub fork repository for 'TomasTorsvik / BLOM-TTfork'. The repository is public and forked from 'NorESMhub/BLOM'. The 'Code' tab is selected. The main repository has 7 branches and 4 tags. A message indicates that the 'master' branch is 4 commits behind 'NorESMhub:master'. On the right, there is a 'Fetch upstream' button and a modal window titled 'Fetch and merge 4 upstream commits from NorESMhub:master.' The modal contains a message to keep the fork up-to-date with the upstream repository and a 'Fetch and merge' button, which is highlighted with a red box.

This branch is 4 commits behind [NorESMhub:master](#).

Contribute [Fetch upstream](#)

Fetch and merge 4 upstream commits from [NorESMhub:master](#).
Keep your fork up-to-date with the upstream repository.
[Learn more](#)

Compare [Fetch and merge](#)

Commit	Message	Date
.github/workflows	Updated CI with testing	9 days ago
ben02	ncep forcing file changed to acc	7 months ago
bld	Merge new release with the fea	6 days ago
cesm	Merge branch 'master' into feature-hamocc-vsls-upd	9 days ago
channel	Fix random number generation, OpenMP loops, and remove unused va...	7 months ago
cime_config	Merge remote-tracking branch 'upstream/master' into feature-cesm2.2_i...	6 days ago
doc	Added a structure for documentation to BLOM/iHAMOCC.	2 years ago
drivers	Merge branch 'master' into feature-hamocc-vsls-upd	9 days ago
fuk95	Corrected an OpenMP directive and added an Intel compiler flag that d...	6 months ago

The “Fetch and merge” option will bring the “master” branch in sync with the main repository ...

-- without conflicts or additional merge commits --

... if you have not made any changes in the “master” branch for your own fork.

Who to contact for each component?

- Atmosphere (CAM) – Steve Goldhaber (MET), Dirk Olivie (MET), Øyvind Seland (MET), Ada Gjermundsen (UiO)
- Land (CLM) – Matvey Debolskiy (UiO), Rosie Fisher (CICERO), Kjetil Aas (CICERO)
- Ocean physics (BLOM) – Mats Bentsen (NORCE), Tomas Torsvik (UiB)
- Ocean biogeochemistry (iHAMOCC) – Jörg Schwinger (NORCE), Jöran Maerz (UiB)
- Sea ice (CICE) – Jens Debernard (MET)
- Land ice (CISM) – Heiko Goelzer (NORCE), Michele Petrini (NORCE)
- River (MOSART) – Mariana Vertenstein (MET) (No dedicated work group)
- System coupler (MCT, NUOPC) – Mariana Vertenstein (MET)

Coordinating model development

The NorESM “tag team” is responsible for coordinating the work for creating new NorESM tags and code releases. Currently the team consists of Mats Bentsen (NORCE), Steve Goldhaber (MET), Mariana Vertenstein (MET), Matvey Debolskiy (UiO), Alok Gupta (NORCE) and Tomas Torsvik (UiB).

- Contact someone in the tag team if you plan to contribute code to the NorESM system, so we can advice how to do pull requests and merging.

Engagement with NorESM community

- Development meetings every Thursday @ 9:00 am via zoom (open for everyone)
 - Currently focused on NorESM3 development
- NorESM mail list (ines2-interim-all@met.no), contact Michael Schultz (MET) to get emails from this list
- Annual NorESM user workshop
- Events are announced through email list and on <https://www.noresm.org/>



Thanks for joining the
NorESM workshop 2026!