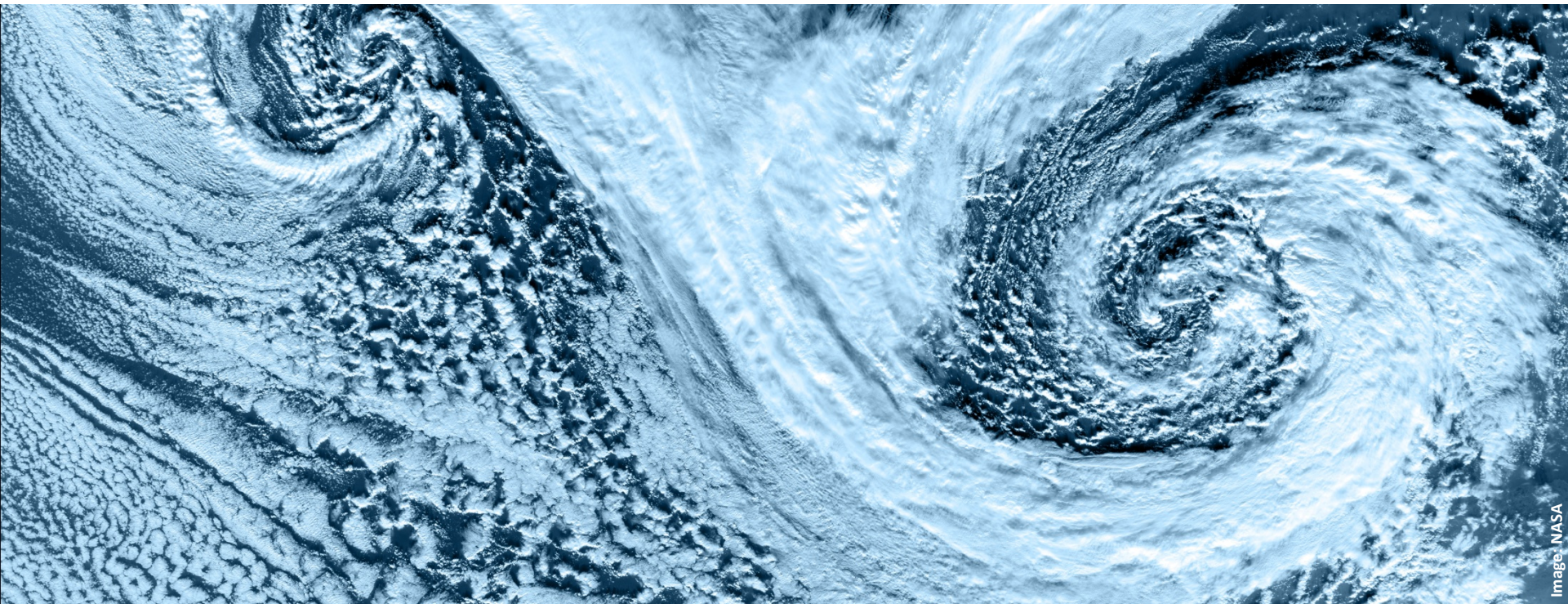


Extpar: status and future plans

Katie Osterried



Extpar: current status

- Last Extpar release: v4.0 in 9/2016
- WebPEP web generation tool functioning again (as of 08/29/2018)
- Current activities:
 - Merge of DWD and ICON versions of Extpar into official version (release 5.0)
 - Development of technical testsuite
 - Automatization of testing with Github and Jenkins

Extpar: Release 5.0 overview

- Work in progress to merge DWD version 2.10 with official COSMO version 4.0
- Release candidate has been distributed for testing to DWD (Jürgen Helmert) and MPI (Luis Kornblueh)
- Release candidate has been tested thoroughly for several COSMO resolutions and setups to ensure continuity with current Extpar version
- Anticipated release date: Autumn 2018

Extpar: release 5.0 Notes

- ICON now fully supported and tested
- GME not supported
- GRIB output currently not supported (Fieldextra conversion of netcdf output to grib- end of year)
- Code Changes
 - Problems with high resolution (< 5km) for NDVI, albedo, deep soil (python workaround)
 - Minimum value for roughness length (changes results)
 - Some new namelist parameters
 - ERA-I SST and T2M for ICON

Extpar code and access

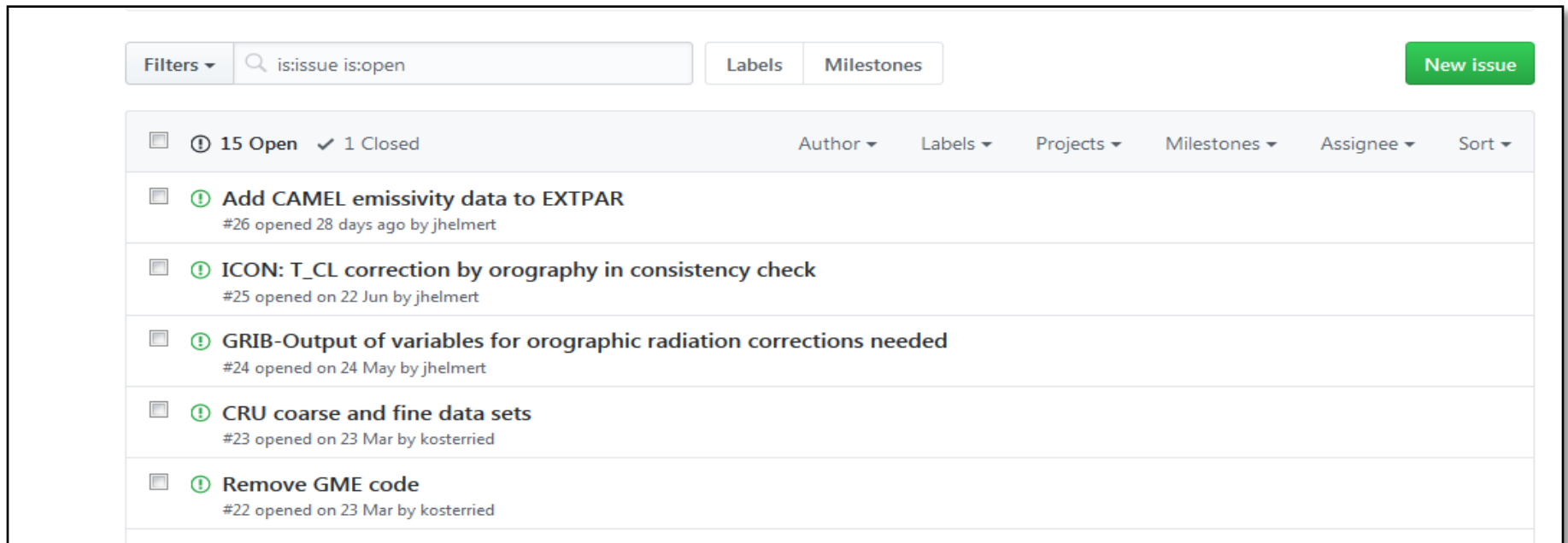
- Code is currently hosted and developed at:
github.com/C2SM-RCM/extpar
- Switch to official COSMO github after release 5.0 is finalized:
github.com/COSMO-ORG/extpar
- Release notes and updated manual can be found on Github
- Email me to get access:
katherine.osterried@env.ethz.ch
- WebPep online tool:
https://tools.clm-community.eu/web_pep/gui/web_pep.php

Extpar testsuite

- Based on COSMO technical testsuite
- Currently tests:
 - MeteoSwiss operational setup (COSMO7 and COSMO1)
 - Aster and Globe
 - DWD operational setup (COSMO)
 - EU-CORDEX climate setup (12km)
- Plans to include:
 - ICON operational and climate setups (from DWD and MPI)
 - Suggestions (Discussion)?

Github and Jenkins

- Github provides tools for
 - Bug (issue) reporting
 - Code review (pull requests)
 - Automated testing with Jenkins
- Enables easy collaboration between developers in different institutions



The screenshot shows the Github issue tracker interface. At the top, there is a search bar with the query "is:issue is:open" and a "Filters" dropdown. To the right are "Labels" and "Milestones" tabs, and a green "New issue" button. Below the search bar, there is a summary bar showing "15 Open" and "1 Closed" issues, along with sorting options: "Author", "Labels", "Projects", "Milestones", "Assignee", and "Sort". The main content area displays a list of issues:

Issue ID	Issue Title	Author	Open Date
#26	Add CAMEL emissivity data to EXTPAR	jhelmert	28 days ago
#25	ICON: T_CL correction by orography in consistency check	jhelmert	22 Jun
#24	GRIB-Output of variables for orographic radiation corrections needed	jhelmert	24 May
#23	CRU coarse and fine data sets	kosterried	23 Mar
#22	Remove GME code	kosterried	23 Mar

Extpar: future plans

- After the release is finalized, there is a plan to add two time-varying data sets to Extpar:
- Time-varying land use data (Landcover CCI): requested by SOILVEG group in COSMO-CLM community
- Time-varying aerosol data (not yet fully defined): requested by researchers at ETH Zürich

Discussion

- Installations at CSCS and elsewhere?
- Strategy for dealing with python/cdo workaround
- Additional tests for testsuite?
- How to avoid divergent code versions?