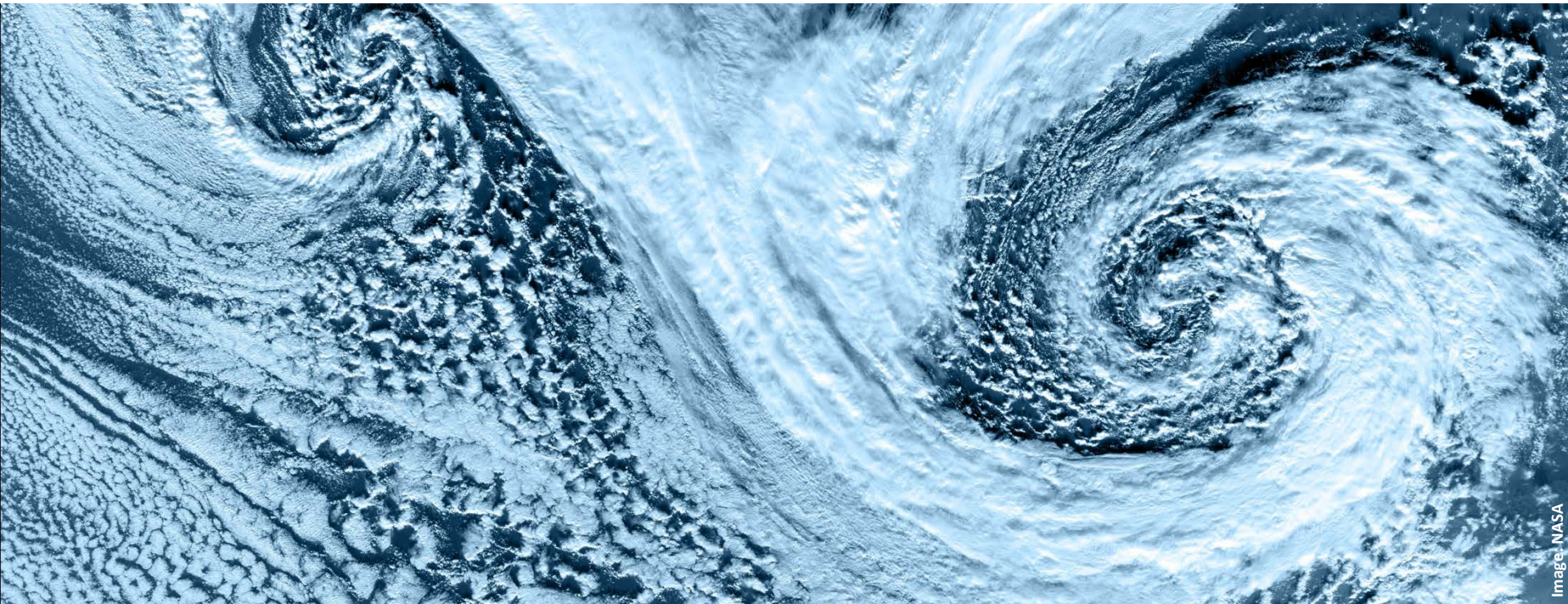


Extpar: status and future plans

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 MPI ICON versions of Extpar into official version (release 5.0)
 - Development of technical testsuite
 - Automation 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 and MPI ICON version
- 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
 - Addition of python scripts to replace Fortran code for high-resolution ICON setups
 - Minimum value for roughness length (changes results)
 - Some new namelist parameters
 - ERA-I SST and T2M for ICON

Extpar code and access

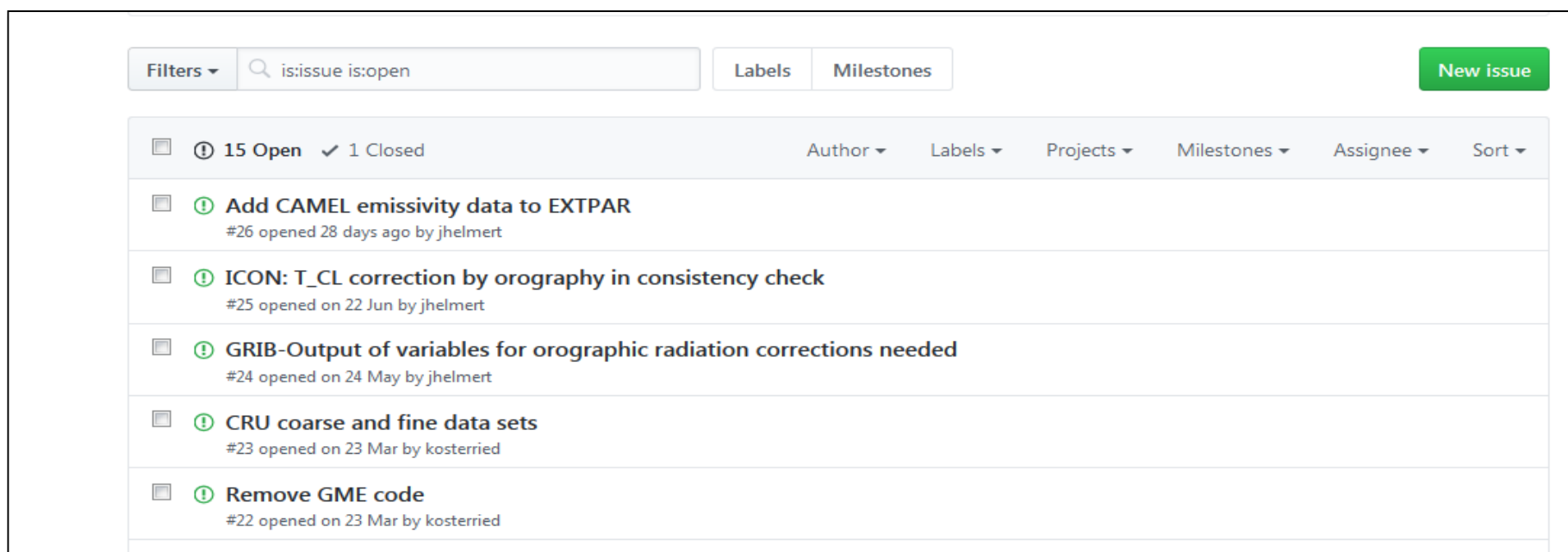
- Code is currently hosted and developed at:
github.com/C2SM-RCM/extpar
- Switch to official COSMO github after release 5.0 is finalized:
github.com/COSMO-ORG/extpar
- Release notes and updated manual can be found on Github
- Email me to get access:
katherine.osterried@env.ethz.ch
- WebPep online tool: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

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 "New issue" button. Below the search bar, there are tabs for "Filters", "Labels", and "Milestones". The main content area displays a list of issues with the following details:

<input type="checkbox"/>	15 Open	✓ 1 Closed	Author	Labels	Projects	Milestones	Assignee	Sort
<input type="checkbox"/>	Add CAMEL emissivity data to EXTPAR	#26 opened 28 days ago by jhelmert						
<input type="checkbox"/>	ICON: T_CL correction by orography in consistency check	#25 opened on 22 Jun by jhelmert						
<input type="checkbox"/>	GRIB-Output of variables for orographic radiation corrections needed	#24 opened on 24 May by jhelmert						
<input type="checkbox"/>	CRU coarse and fine data sets	#23 opened on 23 Mar by kosterried						
<input type="checkbox"/>	Remove GME code	#22 opened on 23 Mar by kosterried						

Extpar: future plans

- After the release is finalized, there is a plan to add new data sets/parameters to Extpar:
- Skin conductivity: implemented by Jan-Peter Schulz
- 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
- Pollen data set (requested by ICON-ART and DWD)
- CAMEL emissivity (requested by DWD)