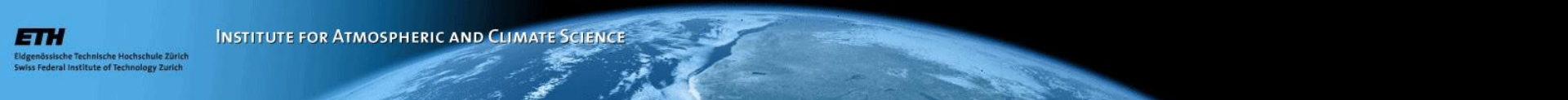# News from EXTPAR

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Status of EXTPAR

- **EXTPAR has become an official COSMO software 1 year ago**

- **EXTPAR is a common development of COSMO consortium and CLM-community to maintain a unified version**

- **In February 2014 as a result of this cooperation version 2.0.0 of EXTPAR was released**

- **EXPART 2.0 provides all external parameters fields needed for available options in COSMO 5.0**

- **Many people have contributed to this release: Martina Messmer, Anne Roches, Jürgen Helmert, Gerhard Smiatek, Jean-Marie Bettems, Frank Brenner, Eva-Maria Gerstner, Hermann Asensio, Günther Zängl, Guy de Morsier**

Recent updates of EXTPAR

- **Version 2.0.1 (June 2014)**
  - **new itype_albedo=3 (omit calculation of NIR and UV albedo fields)**
  - **reduce memory needs for globcover landuse raw data**
  - **selection of single globecover tiles (optimization, J. Helmert)**
  - **correct bugs reported by GNU compiler (B. Rockel)**
- **Version 2.0.2 (August 2014)**
  - **added meta-data information in NetCDF output with respect to version used and filter options applied to topography**
  - **added namelist parameters to suppress either NetCDF or GRIB output**
  - **correct geolocation error in aggregation of topography data (southward shift of 30 m ASTER and 1km GLOBE)**
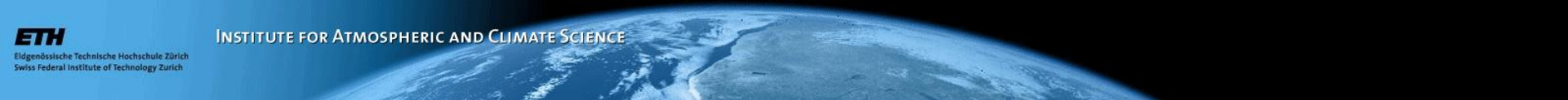
Difference of topographic heights for COSMO-1 resolution domain generated from ASTER and GLOBE raw data sets in version with (2.0.0) and without (2.0.2) geolocation bug

Version 2.0.0
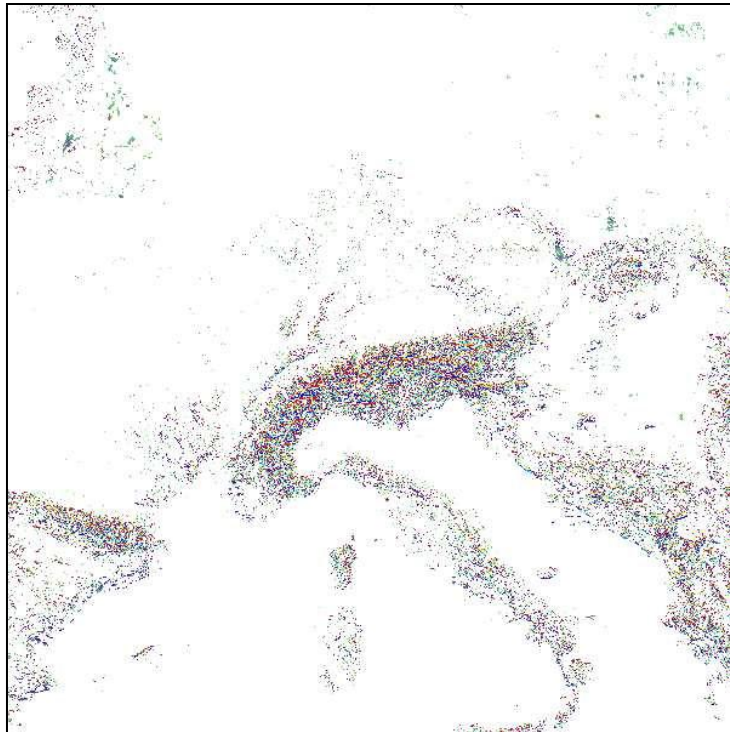
Version 2.0.2
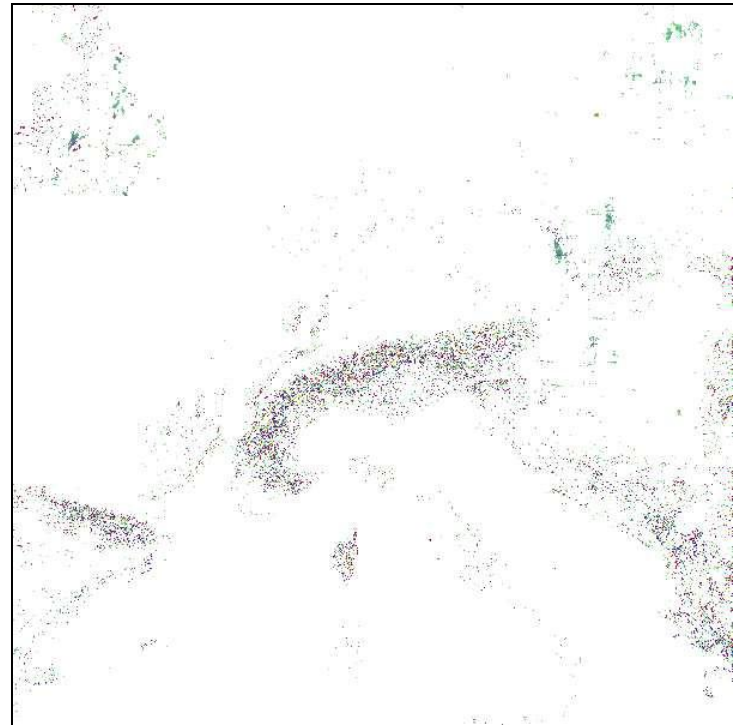
Known issues in EXTPAR 2.0.2

- **Domains crossing date line (180 deg longitude)**
  - The aggregation or interpolation of some fields fails, when domain lies across the date line (i.e. outside raw data domain)
  - EXTPAR may either crash of produce non-meaningful data
  - Next minor version will correct this

- **Ecoclimap raw data**
  - RSMIN and EMIS_RAD fields produced from Ecoclimap raw data and lookup tables can be erroneous. Don't use these fields

- **Memory usage**
  - Large target grids require a large amount of memory during execution of EXTPAR
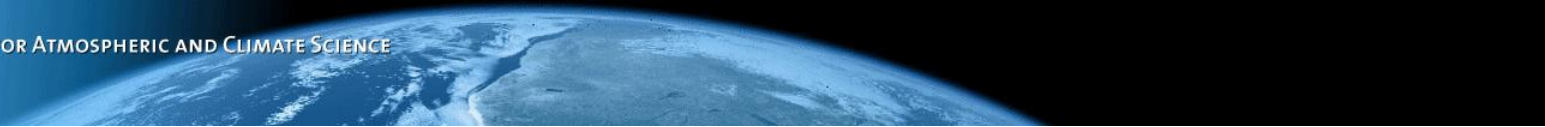
Web-PEP

- **Web-PEP is a browser based frontend tool to EXTPAR**

- **Web-PEP is commonly accessible**

- **Web-PEP is maintained on CLM Web-Server by HZG Geesthacht (Burkhardt Rockel)**

- **URL for Web-PEP: http://www.clm-community.eu/index.php?menuid=221**

- **Web-PEP uses most recent version of EXTPAR (2.0.2)**

- **Limited set of EXTPAR features are currently available**

Web-PEP

What you need to know about Web-PEP

- **Web-PEP was designed with ease of use and robustness in mind**
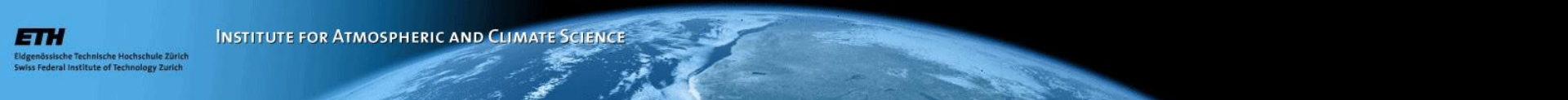
- **Web-PEP expects origin of rotated coordinates instead of north pole for domain definition**

- **Domain size of target grid limited to 2000x2000 GP**

- **Not all raw data sets can be chosen:
Missing: ASTER, HWSD, MODIS-Albedo**

- **Web-PEP output files only in NetCDF-Format**

Planned activities till GM 2015

- **Correct known issues with domains crossing date line (v2.0.3)**

- **Reduce memory need of EXTPAR and code cleanup (v2.1.0)**

- **MPI parallelization of EXTPAR (DWD, G. Zängl)**

- **Make documentation available on COSMO web**

Open issues

- **Access to software and raw data
  … currently restricted installation at CSCS / CH**

- **Fully configurable online platform
  … extend WebPEP (depends on CLM community) ?
  → Yes (but NetCDF only)!**

- **Integration of new fields in EXTPAR
  … anthropogenic heat production (URB), others?
  … needs to be coordinated with SCA of int2lm**