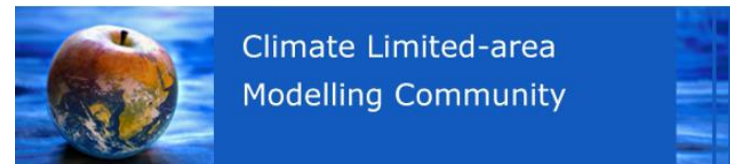


Status of EXTPAR

Daniel Lüthi

Institute for Atmospheric and Climate Science

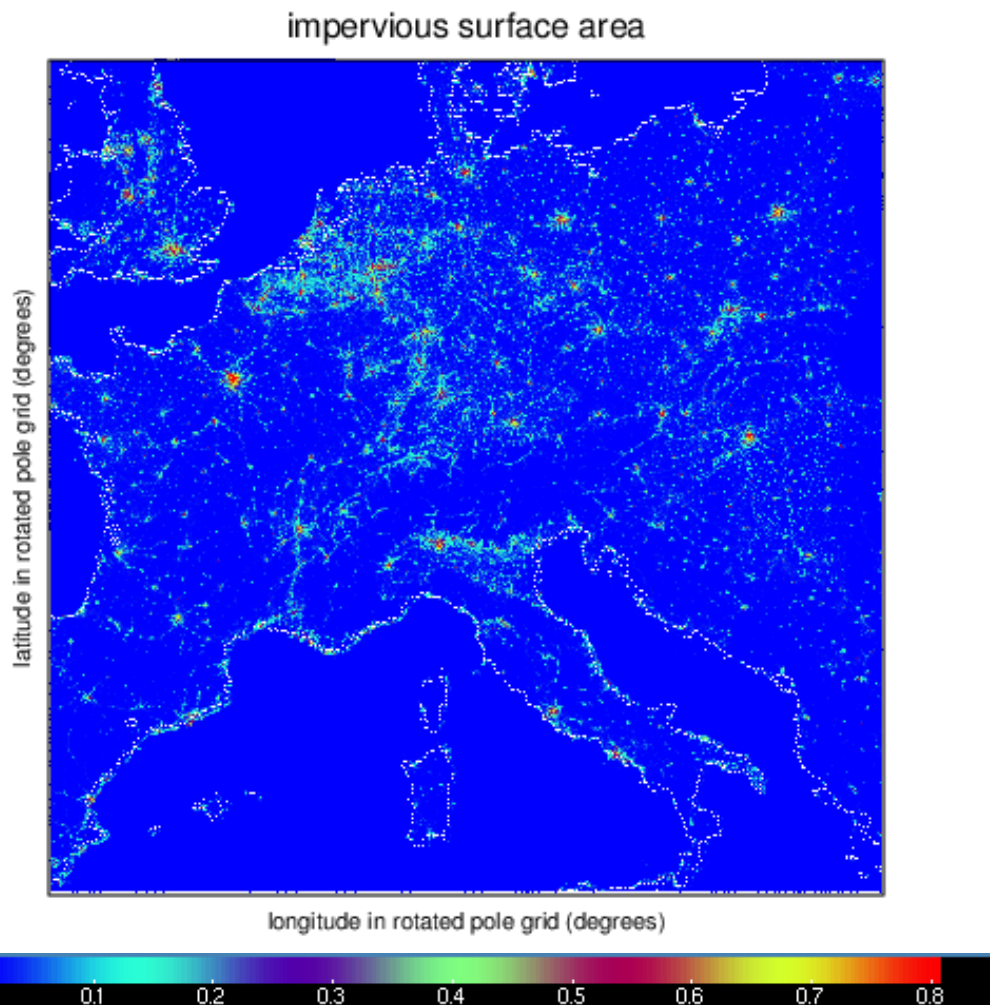
ETH Zürich



Recent updates of EXTPAR

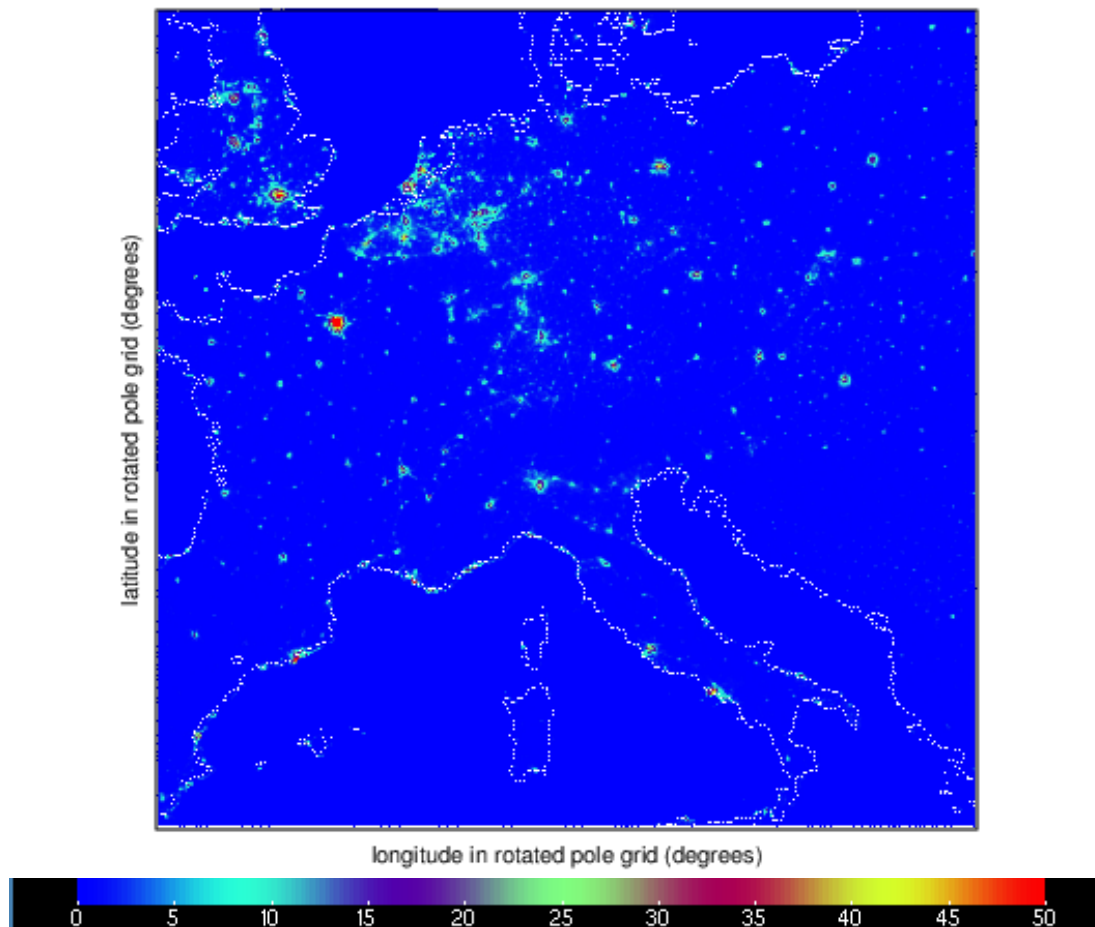
- **New version 3.0 has just been completed (September 2015)**
- **With this version new version numbering scheme:**
 - Official versions released by SCA will have be named **major_version.minor_version** (e.g. 3.0)
 - DWD may release subversions named **major_version.minor_version.subversion** (e.g 3.0.1)
- **New major version due to new external fields supported with EXTPAR 3.0 needed by urban model TERRA_URB**
 - This development was contributed by Hendrik Wouters (KU Leuven) and Jürgen Helmert (DWD)
 - **New fields: *fraction of impervious surface area (ISA), anthropogenic heat flux (AHF)***

Fraction of impervious surface area



Anthropogenic heat flux Wm^{-2}

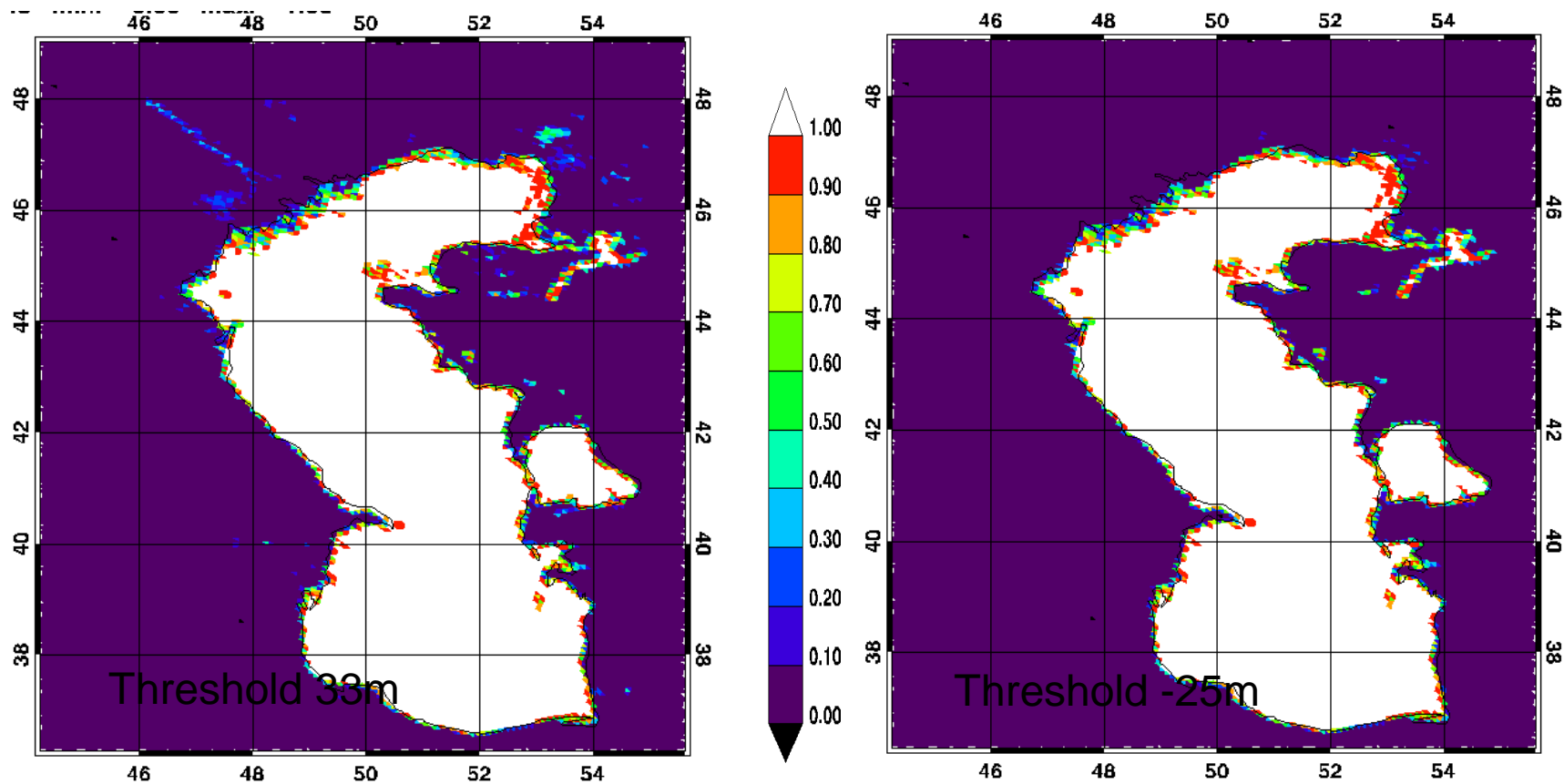
AHF annual mean for 2006



Raw data sets for ISA and AHF

Parameter	Resolution	Area covered	filename	Source
ISA	10''	90°N – 12.5°N 60°W - 60°E	EEA_ISA_4_16bit.nc	European Environment Agency
ISA	30''	75°N – 65°S 180°W - 180°E	NOAA_ISA_16bit.nc	NOAA
AHF	2.5'	90°N – 90°S 180°W – 180°E	AHF_2006_2.5min_1 atreverse.nc	?
AHF	30''	75°N – 65°S 180°W - 180°E	AHF_2006_NOAAISA redistr.nc	Derived from NOAA and coarse data

Issue with ocean fraction in Caspian Sea area found by J. Helmert



Courtesy J. Helmert

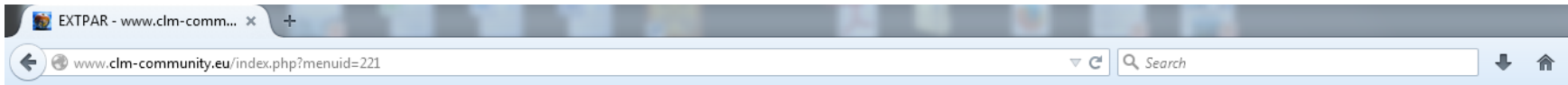
Other changes in version 3.0

- Fixing problems for domains spanning over date line for lake and aerosol data
- Fixing problems with path definitions of raw data files
- Reduction of amount of memory needed when harmonized world soil database (HWSD) is used as raw data for soiltype (frequent crashes of WebPEP jobs due to exceedance of available memory)

WebPEP

- **WebPEP is a browser based frontend tool to EXTPAR used by the CLM community**
- **WebPEP is set up, operated and maintained by HZG Geesthacht (B. Rockel)**
- **WebPEP is also open for the COSMO consortium**
- **URL for WebPEP:**
<http://www.clm-community.eu/index.php?menuid=221>
- **WebPEP uses version 2.0.2 of EXTPAR**
- **Will change to version 3.0 by end of September**
- **ISA and AHF will not be provided yet**

WebPEP



www.clm-community.eu / Model / Preprocessing / External Data (WebPEP)

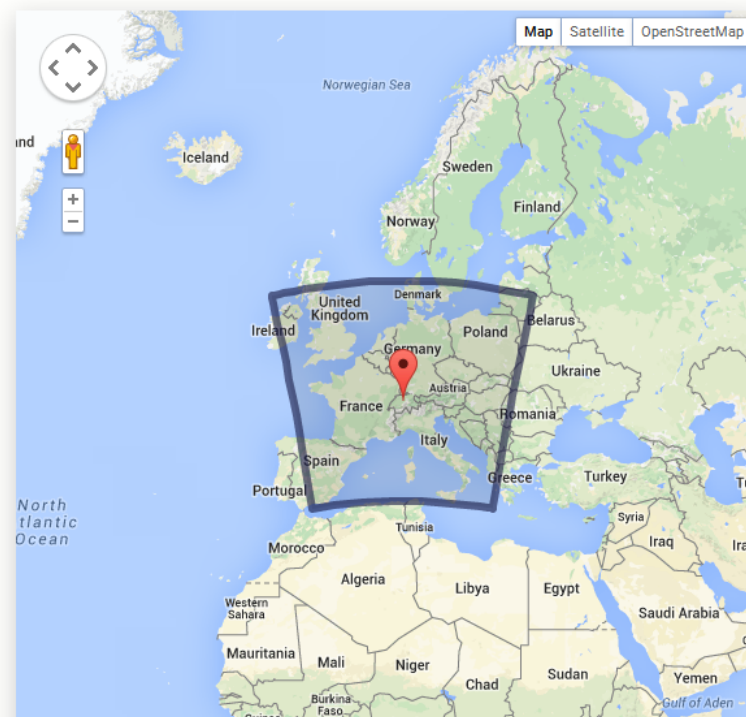
- Home
- About us
- Community
- Model
 - Overview
 - Documentation
 - Preprocessing
 - External Data (WebPEP)
 - Initial & Boundary Data
 - Configuration
 - Support
 - Postprocessing
 - Utilities
- Events
- Outcome
- Archive

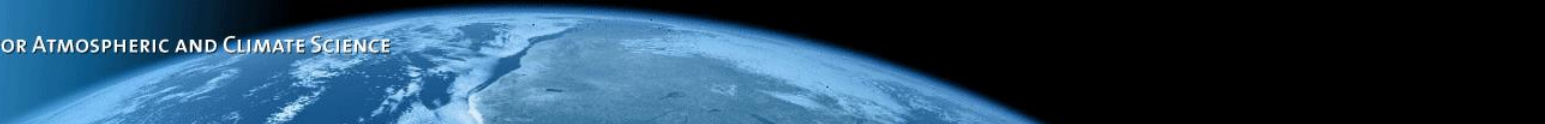
WebPEP

Version: EXTPAR-2.0.2

README

origin lon	<input type="text" value="8"/>
origin lat	<input type="text" value="47"/>
ie_tot	<input type="text" value="1000"/>
je_tot	<input type="text" value="1000"/>
startlon	<input type="text" value="-10."/>
startlat	<input type="text" value="-10."/>
dlon	<input type="text" value="0.02"/>
dlat	<input type="text" value="0.02"/>
Orography	<input type="text" value="ASTER"/>
Orographic Filtering	<input type="text" value="Yes"/>
Land use	<input type="text" value="GLOBCOVER"/>
Soil	<input type="text" value="FAO-DSMW"/>
Aerosols	<input type="text" value="NASA/GISS"/>
Surface Albedo	<input type="text" value="MODIS dry & sat"/>
E-mail	<input type="text" value="dl@env.ethz.ch"/>
View mode	<input type="text" value="2D (Google Maps)"/>





What you need to know about WebPEP

- **WebPEP was designed with ease of use and robustness in mind**
- **WebPEP expects origin of rotated coordinates instead of north pole for domain definition**
- **Domain size of target grid limited to 1000x1000 GP due to memory limitations**
- **ASTER only allowed for grid mesh size ≤ 5 km**
- **WebPEP output files only in NetCDF-Format**
- **WebPEP doesn't allow yet to specify orography filtering options: assumes filter options used for MCH COSMO-1**



Thank you for
your attention!!