



Welcome to the Workshop

“The Use of Gridded Satellite Data for Climate Services”

Online Phase: 23 Oct – 3 Nov 2017

Classroom Phase: 20 Nov – 24 Nov 2017, Pretoria, South Africa

This 2 weeks online phase is designed to provide you with background knowledge on the satellite based climate data and the software tools we will be working with during the classroom phase in Pretoria. Learn at your own pace and decide how deep you would like to engage with the science behind the data.

After you have worked through the content of this online phase, you should be able to:

- explain the difference between **weather** and **climate**
- discuss why **climate monitoring** is important and why **satellites** play an increasing role
- explain the difference between **Operational Climate Monitoring Data/Environmental Data Records, Fundamental Data Records and Thematic Climate Data Records**
- I browse through the catalogue of **available CM SAF data**
- order and **download CM SAF data**
- to get an answer in case of **questions** on the CM SAF data

Most of the time of the classroom phase is reserved for practical exercises - you will be working on your own projects! To best prepare for the classroom phase, please

- order and download the CM SAF data you are interested in and to store them on the laptop you bring to Pretoria. Instructions on how to do that are provided in the section ["Classroom Preparation I: CM SAF data"](#)
- install the software tools listed below on the laptop you will bring to Pretoria. Some information about the software tools, instructions where to download and how to install the software are provided in the section ["Classroom Preparation II: Prepare your laptop and install the software"](#)
 - CM SAF R Toolbox
 - R-Instat
 - Panoply
 - ncview

- think about a small you would like to work on during the week in Pretoria. For further information on the mini projects, please refer to section ["Classroom preparation III: your mini project"](#)

Enjoy the online phase and use it to prepare yourself for the classroom – the better you prepare, the more you will get out of the classroom phase!

The Course Forum:



Please use the forum to

- get in touch with your course mates and the instructors
- raise your questions
- discuss your ideas for the mini project you would like to work on during the classroom phase.

Forum posts might not be answered immediately - however the instructors will attend the forum and answer your questions in "near real time" during the following times:

- **Tuesday, 24 Oct 2017, 09:00 - 10:00 UTC:** Christine (General questions about the course; EDR / FCDR / TCDR; CM SAF Data search and ordering)
- **Wednesday, 25 Oct 2017, 14:00 - 16:00 UTC:** Steffen (General questions about the course; EDR / FCDR / TCDR; CM SAF Data search and ordering; CM SAF R Toolbox)
- **Thursday, 26 Oct 2017, 11:00 - 12:00 UTC:** Stats4SD (R Instat)
- **Monday, 30 Oct 2017, 12:00 - 13:00 UTC:** Christine (General questions about the course; EDR / FCDR / TCDR; CM SAF Data search and ordering)
- **Tuesday, 31 Oct 2017: 11:00 - 12:00 UTC:** Stats4SD (R Instat)
- **Thursday, 2 Nov 2017 10:00 - 11:00 UTC:** Steffen (General questions about the course; EDR / FCDR / TCDR; CM SAF Data search and ordering; CM SAF R Toolbox)

You can post your contributions at any time and we will do our best to answer them also outside the time slots listed above!

Overview of Course Structure and Content

- The definition of Climate vs. the definition of Weather
- Why satellite data are important in Climate Monitoring
- Differences between
 - Environmental Data Records
 - Fundamental Climate Data Records
 - Thematic Climate Data Records
- Where to find, order and download gridded satellite (CM SAF) data for climate applications
- Software tools available to work with gridded data
 - R and CM SAF R Toolbox
 - R Instat
 - Panoply and / or ncview
 - → please install these software tools !! Instructions are provided in the online material.

Online

- How to handle gridded satellite data - practicals

Classroom

We are looking forward to meeting you in Pretoria!