

# **WORKSHOP GUIDE FOR** NATIONAL FACILITIES



World Calibration Centre for Aerosol Physics

# WORKSHOP GUIDE

This flyer guides you through your upcoming participation to a WCCAP workshop. Here you will find the following:

- Workshop contacts, location, & procedures
- Participant to-do lists (shipping equipment)
- Information on your stay in Leipzig



# PLACE TO GO

Leibniz-Institute for Tropospheric Research World Calibration Center for Aerosol Physics Permoserstraße 15 04318 Leipzig Germany

# CONTACT

ecac@tropos.de wccap@tropos.de

# **O**FFICE

Monday - Thursday 9.00am - 12.00am, 1.00pm - 3.00pm Friday 9.00am - 12.00am, 1.00pm - 2.00pm

# How to reach us

WCCAP is hosted at Leibniz-Institute for Tropospheric Research. The institute is located inside the Science Park.

Please be advised that Leipzig has a Low Emission Zone in place which includes the Science Park were TROPOS/WCCAP is located.

# ADDITIONAL INFORMATION





# ANNOUNCEMENT

During the year, CAIS-ECAC provides time slots for inviting National Facilities (NF) and their instruments to participate on hosted ACTRIS calibration workshops at the Central Facility (CF) WCCAP.

In the CAIS-ECAC website you will find the schedule of multiple rounds of Calibration Workshops. Each workshop round has a maximum capacity. To see the schedule of the activities, please go to schedule.

| January | February | March    | April    | May      | June     | July       | August   | September | October  | November | December |
|---------|----------|----------|----------|----------|----------|------------|----------|-----------|----------|----------|----------|
| 1 We 1  | 1 Sa     | 1 Sa     | 1 Tu     | 1 Th     | 1 Su     | 1 Tu       | 1 Fr     | 1 Mo 36   | 1 We     | 1 Sa     | 1 Mo 49  |
| 2 Th    | 2 Su     | 2 Su     | 2 We     | 2 Fr     | 2 Mo 23  | 2 We       | 2 Sa     | 2 Tu      | 2 Th     | 2 Su     | 2 Tu     |
| 3 Fr    | 3 Mo 6   | 3 Mo 10  | 3 Th     | 3 Sa     | 3 Tu     | 3 Th       | 3 Su     | 3 We      | 3 Fr     | 3 Mo 45  | 3 We     |
| 4 Sa    | 4 Tu     | 4 Tu     | 4 Fr     | 4 Su     | 4 We     | 4 Fr       | 4 Mo 32  | 4 Th      | 4 Sa     | 4 Tu     | 4 Th     |
| 5 Su    | 5 We     | 5 We     | 5 Sa     | 5 Mo 19  | 5 Th     | 5 Sa       | 5 Tu     | 5 Fr      | 5 Su     | 5 We     | 5 Fr     |
| 6 Mo 2  | 6 Th     | 6 Th     | 6 Su     | 6 Tu     | 6 Fr     | 6 Su       | 6 We     | 6 Sa      | 6 Mo 41  | 6 Th     | 6 Sa     |
| 7 Tu    | 7 Fr     | 7 Fr     | 7 Mo 15  | 7 We     | 7 Sa     | 7 Mo 28    | 7 Th     | 7 Su      | 7 Tu     | 7 Fr     | 7 Su     |
| 8 We    | 8 Sa     | 8 Sa     | 8 Tu     | 8 Tr     | o e      | 0 To       | 8 Fr     | 8 Mo 37   | 8 We     | 8 Sa     | 8 Mo 5   |
| 9 Th    | 9 Su     | 9 Su     | 9 We     | 9 Fr     |          | - —        | 9 Sa     | 9 Tu      | 9 Th     | 9 Su     | 9 Tu     |
| 10 Fr   | 10 Mo 7  | 10 Mo 11 | 10 Th    | 10 Si    | ישהה     |            | 10 Su    | 10 We     | 10 Fr    | 10 Mo 46 | 10 We    |
| 11 Sa   | 11 Tu    | 11 Tu    | 11 Fr    | 11 Si    |          |            | 11 Mo 33 | 11 Th     | 11 Sa    | 11 Tu    | 11 Th    |
| 12 Su   | 12 We    | 12 We    | 12 Sa    | 12 M     |          |            | 12 Tu    | 12 Fr     | 12 Su    | 12 We    | 12 Fr    |
| 13 Mo 3 | 13 Th    | 13 Th    | 13 Su    | 13 Tı    | <b>7</b> |            | 13 We    | 13 Sa     | 13 Mo 42 | 13 Th    | 13 Sa    |
| 14 Tu   | 14 Fr    | 14 Fr    | 14 Mo 16 | 14 W     |          |            | 14 Th    | 14 Su     | 14 Tu    | 14 Fr    | 14 Su    |
| 15 We   | 15 Sa    | 15 Sa    | 15 Tu    | 15 TI    | 8800     | •          | 15 Fr    | 15 Mo 38  | 15 We    | 15 Sa    | 15 Mo 5  |
| 16 Th   | 16 Su    | 16 Su    | 16 We    | 16 Fr    |          |            | 16 Sa    | 16 Tu     | 16 Th    | 16 Su    | 16 Tu    |
| 17 Fr   | 17 Mo 8  | 17 Mo 12 | 17 Th    | 17 Si    |          |            | 17 Su    | 17 We     | 17 Fr    | 17 Mo 47 | 17 We    |
| 18 Sa   | 18 Tu    | 18 Tu    | 18 Fr    | 18 Si    | -        | 7          | 18 Mo 34 | 18 Th     | 18 Sa    | 18 Tu    | 18 Th    |
| 19 Su   | 19 We    | 19 We    | 19 Sa    | 19 M     | TX M     | ·          | 19 Tu    | 19 Fr     | 19 Su    | 19 We    | 19 Fr    |
| 20 Mo 4 | 20 Th    | 20 Th    | 20 Su    | 20 Tu    |          |            | 20 We    | 20 Sa     | 20 Mo 43 | 20 Th    | 20 Sa    |
| 21 Tu   | 21 Fr    | 21 Fr    | 21 Mo 17 | 21 V     |          |            | 21 Th    | 21 Su     | 21 Tu    | 21 Fr    | 21 Su    |
| 22 We   | 22 Sa    | 22 Sa    | 22 Tu    | 22 T     | CAIC FO  |            | 22 Fr    | 22 Mo 39  | 22 We    | 22 Sa    | 22 Mo 5  |
| 23 Th   | 23 Su    | 23 Su    | 23 We    | 23 F     | CAIS-EC  | <u>.AC</u> | 23 Sa    | 23 Tu     | 23 Th    | 23 Su    | 23 Tu    |
| 24 Fr   | 24 Mo 9  | 24 Mo 13 | 24 Th    | 24 S     |          |            | 24 Su    | 24 We     | 24 Fr    | 24 Mo 48 | 24 We    |
| 25 Sa   | 25 Tu    | 25 Tu    | 25 Fr    | 25 Su    | 25 We    | 25 Fr      | 25 Mo 35 | 25 Th     | 25 Sa    | 25 Tu    | 25 Th    |
| 26 Su   | 26 We    | 26 We    | 26 Sa    | 26 Mo 22 | 26 Th    | 26 Sa      | 26 Tu    | 26 Fr     | 26 Su    | 26 We    | 26 Fr    |
| 27 Mo 5 | 27 Th    | 27 Th    | 27 Su    | 27 Tu    | 27 Fr    | 27 Su      | 27 We    | 27 Sa     | 27 Mo 44 | 27 Th    | 27 Sa    |
| 28 Tu   | 28 Fr    | 28 Fr    | 28 Mo 18 | 28 We    | 28 Sa    | 28 Mo 31   | 28 Th    | 28 Su     | 28 Tu    | 28 Fr    | 28 Su    |
| 29 We   |          | 29 Sa    | 29 Tu    | 29 Th    | 29 Su    | 29 Tu      | 29 Fr    | 29 Mo 40  | 29 We    | 29 Sa    | 29 Mo 5  |
| 30 Th   |          | 30 Su    | 30 We    | 30 Fr    | 30 Mo 27 | 30 We      | 30 Sa    | 30 Tu     | 30 Th    | 30 Su    | 30 Tu    |
| 31 Fr   |          | 31 Mo 14 |          | 31 Sa    |          | 31 Th      | 31 Su    |           | 31 Fr    |          | 31 We    |

Please click on the workshop schedule for more details.

## NVITATION

CAIS-ECAC will send an invitation via email to the responsible PI of each NF, accepted in Step 1a, to participate in one of the announced ACTRIS calibration workshop.

# CONFIRMATION

After discussing a possible workshop week and reaching mutual agreement, CAIS-ECAC confirms participation in the WCCAP workshop.

# **ONLINE REGISTRATION**

The participating NF should register online at least three weeks before the workshop to provide the following information: number and name of participants, instruments, serial numbers, status, radioactive source and additional information.

# Online Registration Information: If you got no invitation, please contact CAIS-ECAC off CAIS-ECAC office. Otherwise the registration will be cunderstanding. National Facility\* Workshop Week (Start-Date)\* CAIS-ECAC City Cals-CAC Cals-CAC

# SHIPPING TO-DO-LIST

You are responsible for:

- shipping the instruments to WCCAP and back to your NF and providing labels
- inform TROPOS Purchasing Office about shipping details and delivery time (date, tracking number)
- announce shipping of radioactive sources and clarify documentation and registration

Using a shipping company, the instruments should arrive the week before the workshop.

The TROPOS Purchasing Office is open Monday-Thursday, 9:00am – 15:00pm and Friday 9:00am to 12:00am.

## **Shipping Address:**

Leibniz-Institute for Tropospheric Research (TROPOS) World-Calibration Center for Aerosol Physics (WCCAP) Permoserstraße 15 04318 Leipzig, GERMANY

#### **Contacts:**

TROPOS Purchasing Office
Ingolf Bernhardt (einkauf[at]tropos.de)
WCCAP-Team
Kay Weinhold (weinhold[at]tropos.de
Maik Merkel (merkel[at]tropos.de)
Stephanie Schüttauf (schuettauf[at]tropos.de)

# **EQUIPMENT TO SEND**

Please send the online-registered ACTRIS instruments in a robust shipping box to WCCAP.

Additionally, please send the following:

## For the optical workshop:

- pumps or cables necessary to operate instrument
- sufficient connectors for inlet/outlet
- additional filter tape

## For the CPC and MPSS workshop:

- butanol bottle
- PC or laptop with software for MPSS
- voltage meter
- radioactive source, if possible, for MPSS
- any additional parts to operate your instrument (e.g. pump, tubes, cables)

# **E**QUIPMENT AVAILABLE AT WCCAP

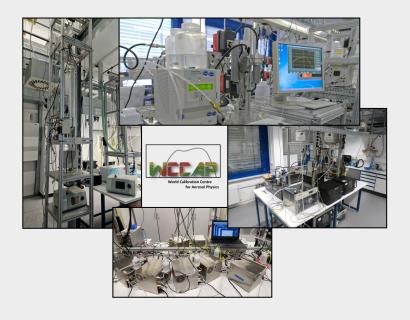
- butanol
- PSL (different sizes for calibration)
- flow meter
- central system for vacuum and compressed air

# WORKSHOP

All announced workshops are running parallel in dedicated laboratories during the week. It is possible to switch between the labs and interact with the workshop leads.

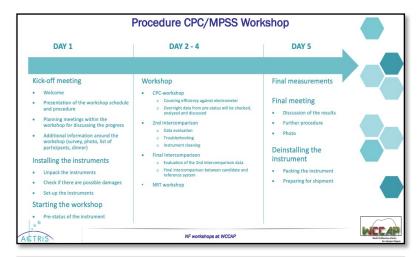
# <u>Different laboratories according instrument</u> type:

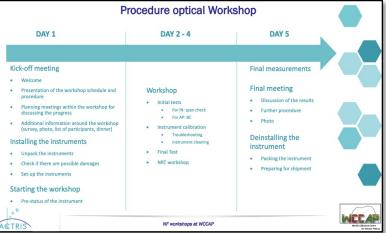
- Condensation Particle Counter
- Mobility Particle Size Spectrometer
- Aerodynamic Particle Size Spectrometer
- Optical Instruments (AP, IN, EM)
- Cloud Condensation Nuclei Counter



# WORKSHOP SCHEDULE & PROCEDURE

The workshop begins on Monday and ends on Friday around noon. Therefore, it is necessary that all instruments and also the participants are at the WCCAP on Monday between 9:00 to 12:00 am.





# NEAR-REAL-TIME

Near-real-time connects each ACTRIS instrument to an online cloud and uploads the data directly to the NILU-data-base for further data processing and storage. This is mandatory for each NF and operated ACTRIS instrument. Please check the provided software on GitLab for near-real-time and install the software on your device. During the workshop you have the possibility to discuss questions and solve problems, if necessary.

# Online CAIS-ECAC Server

CAIS-ECAC hosts an online server where each NF has their own station folder. Please use this folder for any documentations, workshop or station related activities connected to the NF and CF. Please contact your PI or CAIS-ECAC for access.

For the instrument database you need to fill out the "pidinst" - document preferably before each ACTRIS workshop. It will be provided on the CAIS-ECAC Server under the upcoming ACTIS workshop latest one week before.

# Questionnaire

We would be grateful if you could fill out the online questionnaire after the ACTRIS workshop week. This questionnaire was generated to evaluate the operation support you received by CAIS-ECAC. It will help us to improve the operation and make it more user-oriented.

Please use the CAIS-ECAC website under CF-WCCAP and "Questionnaire".

# WORKSHOP RESULTS

WCCAP provides calibration reports for each instrument. Latest two weeks after the workshop, results and final reports are uploaded on the CAIS-ECAC Server under your NF in corresponding calibration workshop folder.



# **S**UGGESTIONS FOR ACCOMODATION

There are several good hotels and motels in and around Leipzig. You can find them easily by searching "Leipzig" and "accommodation". Below are some suggestions sorted by the proximity to the WCCAP at TROPOS.

#### **Near TROPOS:**

- Suite Hotel Leipzig
- H4 Hotel Leipzig

#### Between TROPOS and the City Center:

- Galerie Hotel Leipziger Hof
- Hotel Atlas Leipzig

### City Center:

- Intercity Hotel
- Hotel Motel One
- Best western
- Holiday Inn Express Hotel
- Marriot Hotel
- Seaside Park Hotel Leipzig



# **A**CKNOWLEDGEMENT

The establishment of ACTRIS-D is sponsored by the Federal Ministry of Research, Technology and Space (BMFTR) within the framework of the FONA strategy »Research for Sustainability. The operation of the Central Facilities in ACTRIS-D is sponsored by the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUKN).

# **W**E THANK YOU

very much for your cooperation in advance. If you have any additional question or problem, please let us know.

We are looking forward to welcome you in Leipzig at the CF WCCAP.

See you soon.

All the Best, The WCCAP-Team.



## MPRESSIONS From Audits





Montsec, Spain





Helmos, Greece





Zeppelin, Spitzbergen

