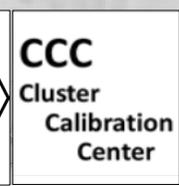


# The pilot calibration workshop for mobile platforms

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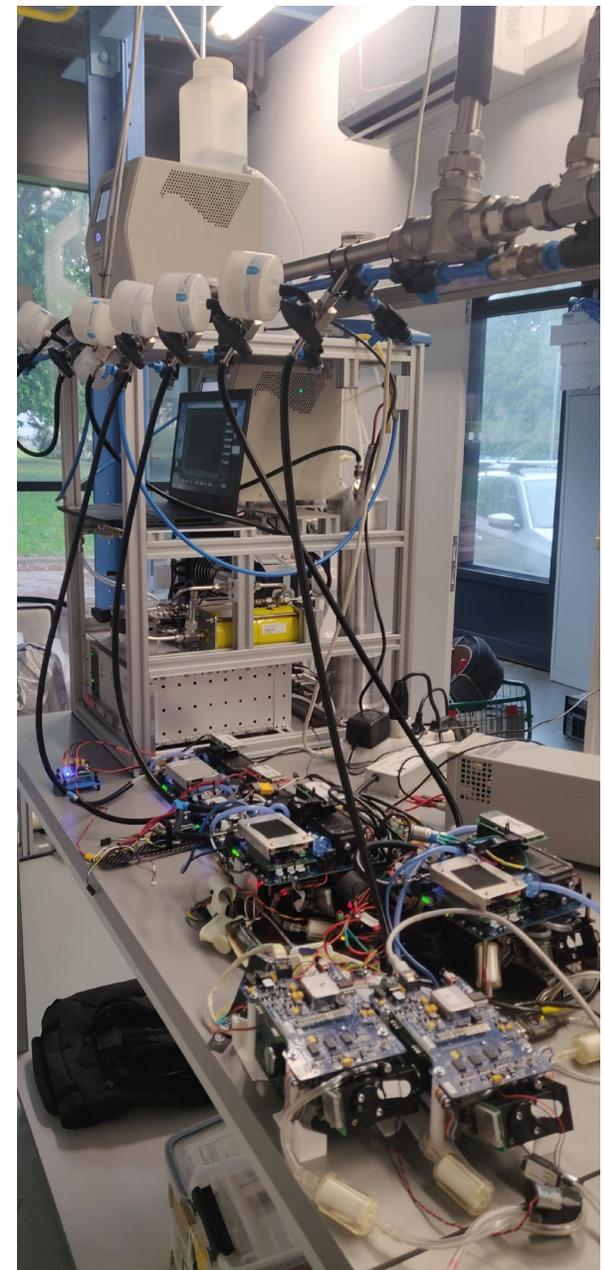
# 19.-23.5.2025 PACC, ICPF CAS

## Instrumentation

- CPC 3007 5x (FMI)
- POPS 4x (2x FMI, 2x CYI)
- miniCDA (FMI)
- UCASS 8x (4x aerosol (2x FMI, 2x CYI), 4x droplet (2x FMI, 2x CYI))

## Calibration set-up

- PACC ACTRIS calibration set-up for CPCs
- PACC ACTRIS calibration set-up for MPSSs
- PACC improvised calibration set-up



## CPC (reference: aerosol electrometer, reference CPC 3750)

### Counting efficiency (3 different CPC saturator temperatures)

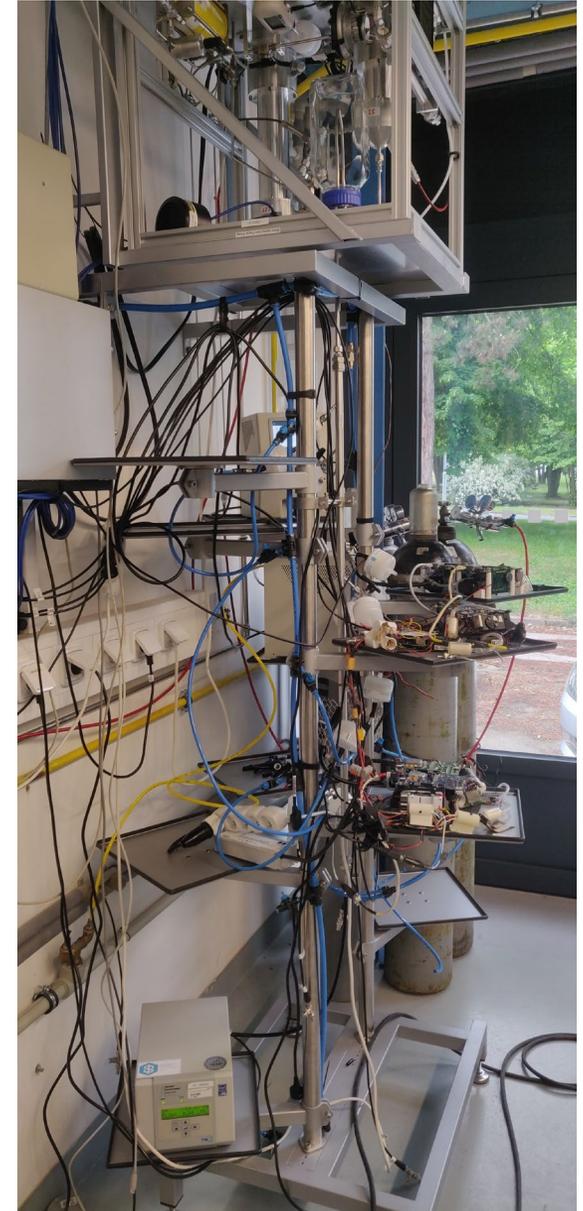
- 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 20, 30, 40 nm silver particles
- $d_{50}$
- plateau efficiency @ 40 nm

### Concentration linearity (3 different CPC saturator temperatures)

- 40 nm silver particles
- 1 000, 2 000, 4 000, 8 000, 12 000, 24 000 and 50 000 #/cm<sup>3</sup>

### Ambient air

- concentration time series



# POPS (+miniCDA) (reference: APSS, OPSS, reference CPC 3750)

## Sizing check

- 200, 700, 800 nm, 1, 2 and 3  $\mu\text{m}$  PSL

## Counting efficiency

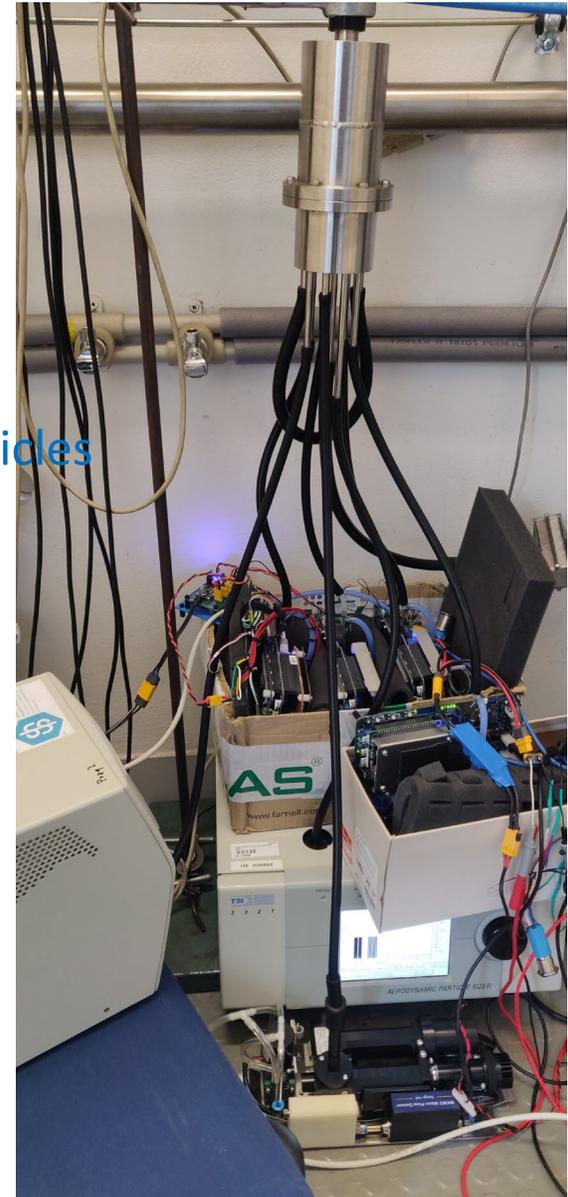
- 100, 110, 120, 130, 140, 150, 160, 170, 180, 200, 20, 230, 260 and 300 nm AS particles
- $d_{50}$

## Concentration linearity

- 200 and 300 nm AS particles
- 50, 100, 200 and 500  $\#/\text{cm}^3$  (@ 300 nm)
- 100, 200, 300, 600, 1 000, 2 000 and 4 000  $\#/\text{cm}^3$  (@ 200 nm)

## Ambient air

- concentration time series
- average size distribution



## UCASS (reference: APSS, OPSS)

### Sizing check

- 200, 700, 800 nm, 1, 2 and 3  $\mu\text{m}$  PSL
- 5, 8, 10, 15, 20 and 30  $\mu\text{m}$  borosilica beads



## NEXT

- mobile instruments calibration workshops SOPs
- mobile instruments recommendations and SOPs

Next calibration workshop – October-December 2025

Potentially interested participants?

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