



CINDI-2 Post-campaign Meetings

BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY BELGISCH INSTITUUT VOOR RUIMTE-AERONOMIE INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE BELGIAN INSTITUTE OF SPACE AERONOMY

- 1st CINDI-2 Workshop, KNMI, 3-5 April 2017
- CINDI-2 Meeting, Yokohama, 6 September 2017
- 2nd CINDI-2 Workshop, Muttons, 14-15 March 2018
- ➔ 3rd CINDI-2 Workshop, ESA/ESRIN, Frascati, 26-27 February 2019:
 - ✓ Presentation of final results but also new results/developments based on CINDI-2 data
 - ✓ Publication plan
 - ✓ Future activities: CINDI-3, FRM₄DOAS service, ACTRIS, NDACC



Workshop Agenda



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Day 1 – Tuesday 26 February 2019 – Magellan room

- 09:00 A. Dehn (ESA),
F. Hendrick (BIRA) Welcome and logistic information
- 09:10 A. Dehn (ESA) Sentinel-5 Precursor/TROPOMI status overview and validation concept

Trace gas and aerosol profiling – Part 1 (session lead: U. Friess)

- 09:30 S. Beirle (MPIC) The Mainz Profile Algorithm (MAPA): profile retrieval, flagging procedure and results for CINDI-2
- 09:50 M. Friedrich (BIRA) Revised MMF profiling: improvements on quality flagging, layered profiles and other issues
- 10:10 T. Bösch (IUP-B) The impact of using different climatology approaches and AERONET information on MAX-DOAS profiling results retrieved by BOREAS during CINDI-2
- 10:30 E. Lind (Virg. Tech.) Machine Learning assisted aerosol retrieval algorithm: validation using Pandora data during CINDI-2

10:50 Coffee break + poster session

Trace gas and aerosol profiling – Part 2 (session lead: F. Hendrick)

- 11:20 U. Friess (IUP-H) Intercomparison of MAX-DOAS profile retrieval algorithms using synthetic data as part of the FRM4DOAS project
- 11:40 L. Tirpitz (IUP-B) Update on the Comparison of CINDI-2 Profiling Results
- 12:00 Y. Wang (MPIC) Update of inter-comparisons of HONO SCD and profiles
- 12:20 T. Koenig (CU-Boulder) Retrieving free tropospheric trace gases from tropical island mountain tops
- 12:40 All Discussion

13:00 Lunch break

Ancillary observations (session lead: A. Richter)

- 14:10 A. Apituley (KNMI) An overview of the CINDI-2 ancillary data
- ~~14:30 F. Wittrock (IUP-B) Mobile MAX-DOAS and in situ measurements of atmospheric trace gases and aerosols~~
- 14:50 D. Stein Zweers (KNMI) Use of data from the KNMI NO₂-sondes and OMI to validate MAX-DOAS retrievals
- 15:10 All Discussion
- 15:30 Coffee break + poster session

Horizontal variability (session lead: A. PETERS)

- 16:00 A. Richter (IUP-B) Evaluation of horizontal variability - what can we learn from MAX-DOAS measurements during CINDI-2 ?
- 16:20 E. Dimitropoulou (BIRA) One year of 3-D MAX-DOAS tropospheric NO₂ measurements over Brussels
- 16:40 T. Wagner (MPIC) Horizontal aerosol gradients around Mainz derived from 4 azimuth ceilometer observations
- 17:00 All Discussion
- 17:20 End of day 1
- 19:30 Social dinner at Ristorante Belvedere dal 1933 (see menus below)



Workshop Agenda



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Day 2 - Wednesday 27 February 2019 – Magellan room

New developments/data sets (session lead: T. Wagner)

09:00 I. Bruchkouski (BLS)	Spectra calibration method for inter-comparison of MAX-DOAS instruments
09:20 M. Gebetsberger (LuftBlick)	Combining direct sun and multi axis observations for trace gas calibration
09:40 M. Van Roozendael (BIRA)	Assessment of direct-sun observations during CINDI-2
10:00 R. Volkamer (CU-Boulder)	Deployment of the CU airborne SOF instrument during the 2018 BB-FLUX campaign
10:20 All	Discussion

10:30 Coffee break

Current and future side activities (session lead: M. Van Roozendael)

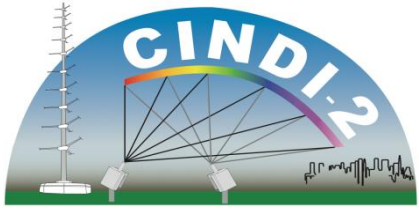
10:50 F. Hendrick (BIRA)	ESA FRM4DOAS: Final results of the first project phase
11:10 K. Kreher (BKScientific) M. Van Roozendael (BIRA)	CINDI-2 and FRM4DOAS: Perspectives for NDACC
11:25 M. Van Roozendael (BIRA) A. Cede (LuftBlick)	Status of ACTRIS
11:40 All	Discussion
12:00 All	Next intercomparison campaign (CINDI-3)
12:20 F. Hendrick (BIRA)+all	Current status of CINDI-2 publications
13:10 All	AOB
13:15	End of the Workshop

List of posters:

1. F. Khokhar (NUST): Retrieval of CHOCHO, tropospheric O₃, HCHO and NO₂ by using CINDI-2 observations
2. K. Zarzana (CU-Boulder): Airborne column measurements of HONO, NO₂ and OVOC in biomass burning plumes
3. C. Lee (CU-Boulder): The CU airborne SOF instrument: Spectral Retrieval and Data Validation for the 2018 BB-FLUX campaign
4. T. Koenig (CU-Boulder): Daytime detection of IO radicals in the lower stratosphere
5. L. Tirpitz (IUP-H): Update on the Comparison of CINDI-2 Profiling Results

Workshop logistics:

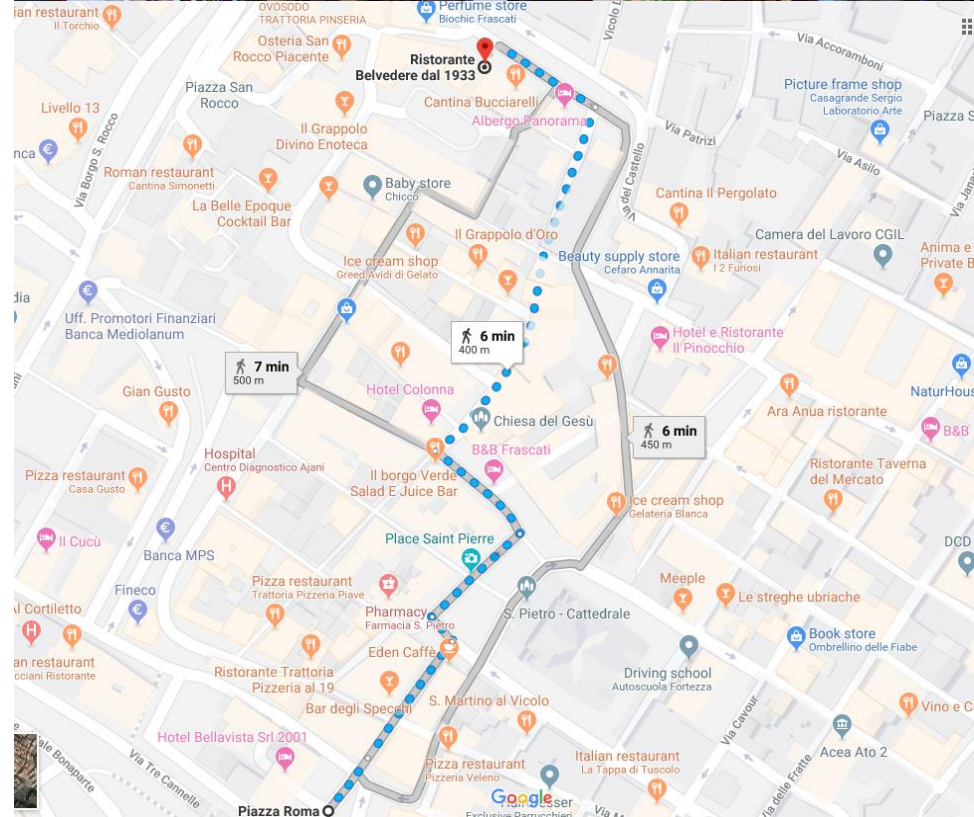
- ✓ Coffee breaks will take place at the registration desk area
- ✓ Lunch will be at the canteen
- ✓ Inform local organisers if you need a taxi to the airport on Wednesday
- ✓ Workshop dinner



Workshop dinner



- Dinner today at 20:00, Frascati center,
- Restaurante Belvedere 1933 <https://www.belvedere1933.com/>





Two options for the menu:



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Option 1:



Antipasto

Fiori di zucca ripieni di ricotta romana, pancetta affumicata , coulis al pomodoro

Primi (una a scelta)

Rigatoni all'amatriciana con guanciale affumicato e pecorino Cibarìa
Rigatoni con ragù di maiale nero e carciofi romaneschi

Secondo

Porchetta del norcino Vitaliano con insalata mista

Vino locale bianco e rosso
ACQUA & CAFE'

Option 2 (vegetarian):



Antipasto

Fiori di zucca ripieni di ricotta romana , coulis al pomodoro

Primi (una a scelta)

Rigatoni, crema di zucca Mantovana.
Nocciola di Carchitti, pane tostato alle erbe, parmigiano reggiano

Secondo

Cavolfiore alla brace, caciocavallo, noce, carciofi croccanti

Vino locale bianco e rosso
ACQUA & CAFFE'