



East European Centre for
Atmospheric Remote Sensing



Aerosol, Clouds and Trace gases
Research InfraStructure

ECARS 1st Summer School on Atmospheric remote sensing: challenges and applications

Bucharest, 23 May – 3 June 2016

Embedded events:

23 -27 May 2016

ECARS workshop on good practices in lidar operation

Access to the training facility of the Lidar Calibration Centre through ACTRIS-2 TNA activities (application forms available at <http://lical.inoe.ro/apply-for-access/>)

Access to the testing laboratory of the Lidar Calibration Centre through ACTRIS-2 TNA activities (application forms available at <http://lical.inoe.ro/apply-for-access/>)

Venue:

National Institute of R&D for Optoelectronics, Magurele, Ilfov, Romania

Logistics:

No fee applies

Lectures and hands-on training will be provided at the premises of the institute, 6 km SW Bucharest

Transport will be provided from and to the city center (Walter Maracineanu square):

- departure from the city center: each morning at 08:15
- departure from the institute: 15 min. after the closure of each day (see the tentative agenda)

Recommended hotels (special rates through our travel agency VIA EUROPA, ioana.enache@via-europa.ro):

*** Hotel Opera (<http://www.hotelopera.ro/>)

single: 46 € / night

double: 50 € / night

**** Hotel Venetia (<http://www.hotelvenezia.ro/>)

single: 54 € / night

double: 60 € / night

Coffee breaks and a social dinner (Thursday, 26 May) will be offered to all participants

WiFi and WebEx available.

Notes:



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Participants are kindly asked to bring their own laptop, as well as pictures / graphs / any relevant documentation to evidence potential problems of their lidar.

Application

Some of the activities during the Summer School will be organized at the Lidar Calibration Centre facilities. As such, applicants should use the specific application forms available at <http://lical.inoe.ro/apply-for-access/>: **LiCal-TNArequest-TTW1.xls** for the training, additionally **LiCal-TNArequest-CTW1.xls** in case you want your own components to be tested in the lab.

Limited travel support is available through ACTRIS-2 TNA. In order to be eligible, participants should be located outside Romania. The grant amount will be decided after the review of all applications.

Contact

For details and registration please contact:

Doina Nicolae

National Institute of R&D for Optoelectronics
409 Atomistilor Str., Magurele, Ilfov, Romania
Tel. +40-314053303
Fax +40-21-4574522
E-mail: nnicol@inoe.ro



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TENTATIVE PROGRAMME

Monday, 23 May 2016

Time	Topics	Lecturer /Moderator
09:00 – 10:00	Scope, program & logistics	Doina Nicolae, INOE
10:00 – 10:45	Round table: who am I and what are my expectations from this workshop	
10:45 – 11:00	Coffee break	
11:00 – 12:00	Basics of the instrument	Volker Freudenthaler, LMU
12:00 – 13:00		
13:00 – 15:00	Lunch break	
15:00 - 16:00	Common problems and solutions	Volker Freudenthaler, LMU
16:00 – 17:00		

Tuesday, 24 May 2016

Time	Topics	Lecturer /Moderator
09:00 – 10:45	Introduction to the theory of polarization lidars	Volker Freudenthaler, LMU
10:45 – 11:00	Coffee break	
11:00 – 13:00	Group work (7-10pers.)	Laurentiu Baschir, INOE
	• Group 1: Characterization of optical components (lab work)	Volker Freudenthaler, LMU
	• Group 2: Calculation of the polarisation parameters (Python script)	Livio Belegante, INOE
13:00 – 15:00	Lunch break	
15:00 - 17:00	Group work (7-10pers.)	Laurentiu Baschir, INOE
	• Group 3: Characterization of optical components (lab work)	Volker Freudenthaler, LMU
	• Group 1: Calculation of the polarisation parameters (Python script)	Livio Belegante, INOE
	• Group 2: Demonstration of QA tests (hands-on)	



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Wednesday, 25 May 2016

Time	Topics	Lecturer /Moderator
09:00 – 11:00	Group work (7-10pers.) <ul style="list-style-type: none"> Group 2: Characterization of optical components (lab work) Group 3: Calculation of the polarisation parameters (Python script) Group 1: Demonstration of QA tests (hands-on) 	Laurentiu Baschir, INOE Volker Freudenthaler, LMU Livio Belegante, INOE
11:00 – 11:15	Coffee break	
11:15 – 13:00	Discussion on results: <ul style="list-style-type: none"> what can be seen from the analysis of the QA tests results what have we learnt from the characterization of optical components how can we use the Python script to correct lidar signals for polarization related effects 	Volker Freudenthaler, LMU
Free afternoon		

Thursday, 26 May 2016

Time	Topics	Lecturer /Moderator
09:00 – 10:45	Introduction to SCC: NetCDF, formats, pre-processing	Ioannis Binietoglou, NOA/INOE
10:45 – 11:00	Coffee break	
11:00 – 13:00	Data products check-up	Lucia Mona, CNR-IMAA
13:00 – 15:00	Lunch break	
15:00 - 17:00	Problem identification: discussion on user cases	Volker Freudenthaler, LMU Ilya Serikov, MPI-M Lucia Mona, CNR-IMAA Ioannis Binietoglou, NOA/INOE Doina Nicolae, INOE
20:00 – 23:00	Social dinner	



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Friday, 27 May 2016

Time	Topics	Lecturer /Moderator
09:00 – 10:45	Daytime Raman: pros and cons for various techniques	Ilya Serikov, MPI-M
10:45 – 11:00	Coffee break	
11:00 – 13:00	Daytime Raman: pros and cons for various techniques (cont.)	Ilya Serikov, MPI-M
13:00 – 15:00	Lunch break	
15:00 - 17:00	High Spectral Resolution principle & challenges	Ilya Serikov, MPI-M

Saturday, 28 May 2016

Time	Topics	Lecturer /Moderator
09:00 – 10:45	The airborne HSR lidar MULTIPLY : HSR channels (HSR etalons, iodine filter)	Ilya Serikov & MULTIPLY team
10:45 – 11:00	Coffee break	
11:00 – 13:00	The airborne HSR lidar MULTIPLY : HSR channels (HSR etalons, iodine filter) (cont.)	Ilya Serikov & MULTIPLY team
13:00 – 15:00	Lunch break	
15:00 - 17:00	The airborne HSR lidar MULTIPLY : depolarization channels	Livio Belegante & MULTIPLY team

Sunday, 31 May 2016

Free day



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Monday, 30 May 2016

Time	Topics	Lecturer /Moderator
09:00 – 10:45	The airborne HSR lidar MULTIPLY : detection & data acquisition	Holger Linné, MPI-M
10:45 – 11:00	Coffee break	
11:00 – 13:00	The airborne HSR lidar MULTIPLY : algorithms for data processing	Ioannis Biniotoglou, NOA/INOE
13:00 – 15:00	Lunch break	
15:00 - 17:00	Progress on Python coding of the lidar processing chain	Ioannis Biniotoglou, NOA/INOE

Tuesday, 31 May 2016

Time	Topics	Lecturer /Moderator
09:00 – 10:45	Lessons learnt at MPI: 30 years of lidar work	Holger Linné, MPI-M
10:45 – 11:00	Coffee break	
11:00 – 13:00	Lessons learnt at DLR: airborne lidars & campaigns	Martin Wirth, DLR
13:00 – 15:00	Lunch break	
15:00 - 16:00	Scientific applications of airborne lidar	Franco Marengo, UK MetOffice
16:00 – 17:00	Atmospheric research flight: planning, on-flight tools and real-time decision making. My experience on the FAAM BAe-146	

Wednesday, 1 June 2016

Time	Topics	Lecturer /Moderator
09:00 – 10:45	Satellite atmospheric missions: Cal/Val needs and plans	Dirk Schuettemeyer, ESA/ESTEC
10:45 – 11:00	Coffee break	
11:00 – 13:00	ACTRIS-RI and ACTRIS-RO: the way forward	Doina Nicolae, INOE
13:00 – 15:00	Lunch break	
15:00 - 17:00	Writing lab: how to translate scientific contents to nonscientific audiences (society at large, policy makers, business sector)	Michael Gross



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Thursday, 2 June 2016

Time	Topics	Lecturer /Moderator
09:00 – 13:00	Writing lab: how to translate scientific contents to nonscientific audiences (society at large, policy makers, business sector) - cont.	Michael Gross
13:00 – 15:00	Lunch break	
15:00 - 17:00	Airborne facilities in Romania, recent and planned campaigns	Andreea Boscornea, INCAS

Friday, 3 June 2016

Time	Topics	Lecturer /Moderator
09:00 – 11:00	Atmospheric remote sensing: challenges and applications	Susanne Crewell, UCol
11:00 – 12:00	Summing up: what we've learned & what should follow	Doina Nicolae, INOE
12:00	End of the Summer School	