

→ ESA-MOST DRAGON 2 PROGRAMME

2<sup>nd</sup> Advanced training course in Atmospheric Remote Sensing

19 to 24 October 2009 | Nanjing University | Nanjing, P.R. China

ESA – MOST Dragon 2 Programme

Advanced Training Course in Atmospheric Remote Sensing, Daily Programme

DAY 1: MONDAY 19 OCTOBER 2009		REF.	REPRESENTATIVES / LECTURERS
08:00 – 08:30	REGISTRATION		
Opening session			
08:30-09:00	Opening session		ESA, NJU, NRSCC Representatives
09:00-09:30	Overview of the training course		ESA (CZ) / NJU (JW) TBC
09:30-10:30	Dragon 2 projects – AMFIC and EGOMO	D1L1a	AMFIC – P. Zhang
		D1L1b	EGOMO – Y. Liu
10:30-11:00	Coffee break – group picture		
Background to Atmospheric Remote Sensing			
11:00-11:45	Earth's atmosphere	D1L2	B. Kerridge
11:45-12:30	Atmosphere, climate and satellite observations	D1L3	H. Kelder
12:30-14:00	Lunch		
EO Atmospheric Instruments			
14:00-15:00	UV/VIS Nadir Viewing Atmospheric Instruments/Data (GOME, SCIAMACHY, OMI)	D1L4	H. Kelder
15:00-16:00	UV/VIS Limb Viewing Instruments/Data (GOMOS, Odin)	D1L5	E. Kyrölä
16:00-16:30	Coffee break		
16:30-17:30	IR Limb Viewing Instruments/Data (MIPAS, ACE)	D1L6	B. Carli
17:30-18:30	IR Nadir Viewing Instruments/Data (IASI, TES)	D1L7	B. Kerridge
18:30-20:00	NJU Social event (all participants)		

DAY 2: TUESDAY 20 OCTOBER 2009		REF.	LECTURER
Missions, Data Access and Handling			
08:30-09:30	Current & Future ESA & TPM Missions, Access to Data	D2L1	C. Zehner
09:30-10:30	Current & Future Chinese Missions, Access to Data	D2L2	P. Zhang
10:30-11:00	Coffee break		

11:00-12:30	PRACTICAL – Handling ESA Atmospheric Data	D2P1	S. Niemeyer
12:30-14:00	Lunch		
Theory of Retrievals			
14:00-15:00	Overview on Inversion Methods (incl. Error Analysis)	D2L3	B. Carli
15:00-16:00	UV/VIS Nadir Retrieval (DOAS)	D2L4	H. Jiang
16:00-16:30	Coffee break		
16:30-17:30	UV/VIS Limb Retrieval	D2L5	E. Kyrölä

DAY 3: WEDNESDAY 21 OCTOBER 2009		REF.	LECTURER
Retrievals & Radiative Transfer			
08:30-09:30	IR / Microwave Limb Retrieval	D3L1	B. Carli
09:30-10:30	IR / Microwave Nadir Retrieval	D3L2	B. Kerridge
10:30-11:00	Coffee break		
11:00-12:30	PRACTICAL – Retrieval / Radiative Transfer Theory	D3P1	E. Kyrölä
12:30-14:00	Lunch		
Students' Poster Session			
14:00-16:00	Poster session	PS-1	All lecturers / organisers
16:00-16:30	Coffee break		
16:30-17:15	Poster Session (continued)	PS-2	All lecturers / organisers

DAY 4: THURSDAY 22 OCTOBER 2009		REF.	LECTURER
Validation / Modelling			
08:30-09:30	In-situ Data Needed for Satellite Data Validations	D4L1	B. Kerridge
09:30-10:30	Overview on validation methods	D4L2a	B. Carli
10:30-11:00	Coffee break		
11:00-11:45	Overview on validation methods - Nadir Examples	D4L2b	H. Kelder
11:45-12:30	Examples of Atmospheric Applications within ESA Programmes (GMES, DUE)	D4L3	C. Zehner
12:30-14:00	Lunch		
Modelling / Data Assimilation			
14:00-15:00	Basics on Modelling	D4L4	H. Kelder
15:00-16:00	Basics on Data Assimilation	D4L5	H. Elbern
16:00-16:30	Coffee break		
16:30-17:30	Atmospheric Applications in China – Troposphere	D4L6a	Y. Liu
17:30-18:30	Atmospheric Applications in China – Stratosphere	D4L6b	Y. Liu

DAY 5: FRIDAY 23 OCTOBER 2009		REF.	LECTURER
Data Assimilation			

08:30-09:30	Data Assimilation in the Stratosphere	D5L1	H. Elbern
09:30-10:30	Data Assimilation in the Troposphere	D5L2	H. Elbern
10:30-11:00	Coffee break		
11:00-12:30	PRACTICAL – Data Assimilation	D5P1	H. Elbern
12:30-14:00	Lunch		
Research Challenges			
14:00-15:00	Challenges for Upper Atmospheric Research	D5L3	E. Kyrölä
15:00-16:00	Challenges for Stratospheric Research	D5L4	B. Carli
16:00-16:30	Coffee break		
16:30-17:30	Challenges for Tropospheric Research (B. Carli to discuss with BK about greenhouse gases)	D5L5	B. Kerridge
18:30-20:00	NJU Social event (all participants)		

DAY 6: SATURDAY 24 OCTOBER 2009			
Closing Session			
09:00 – 09:30	Training course summary	ESA CZ / NJU JW (TBC)	
09:30 – 09:40	Prizes for Best Poster Papers	ESA, NJU & NRSCC Representatives	
09:40 – 10:10	Award of Certificates of Attendance	Lecturers and Organisers	
10:10 – 10:15	Closing words	NJU Representative	