



# CoMet Science Workshop

DLR Institut für Physik der Atmosphäre  
30 November – 2 December 2016

## Agenda

**Wednesday, 30 November 2016**

Official begin of the programme: 13:00

12:00	Possibility of having lunch in the DLR cantina	
<b>13:00 – 14:00</b>	<b>Welcome and Introduction (13:00 - 14:00)</b>	
13:00 – 13:10	Welcoming address	Markus Rapp and Andreas Fix, DLR-IPA (D)
13:10 – 13:20	Short round of introduction	all
13:20 – 13:50	Introduction to the CoMet project	Andreas Fix, DLR-IPA (D)
13:50 – 14:00	<b>Discussion</b>	
<b>Session 1: Methane and CO<sub>2</sub> cycle: Selected topics (14:00 - 16:10)</b> <i>Chair: Christoph Kiemle</i>		
14:00 – 14:30	The global carbon cycle: science needs	Ken Davis, Penn State (USA)
14:30 – 15:00	Global methane cycle: key scientific enigmas	Martin Heimann, MPI-BGC (D)
15:00 – 15:20	Arctic sources	Torsten Sachs, GfZ (D)
15:20 – 15:40	Marine CO <sub>2</sub> and methane seeps	Mark Schmidt, GEOMAR (D)
15:40 – 16:00	Emission of methane from Polish hard coal mines	Justyna Swolkień , U Krakow (PL)
16:00 – 16:10	<b>Discussion</b>	
<b>16:10 – 16:40</b>	<b>Coffee break</b>	
<b>Session 2: Modelling Activities (16:40 - 18:30)</b> <i>Chair: Julia Marshall</i>		
16:40 – 17:00	Regional inverse modelling	Christoph Gerbig, MPI-BGC (D)
17:00 – 17:20	Transport and inverse modelling of CH <sub>4</sub> and CO <sub>2</sub> from the regional to the urban scale	Dominik Brunner, EMPA (CH)



17:20 – 17:40	The use of inverse modelling techniques to quantify global CH <sub>4</sub> fluxes from satellite data	Sander Houweling, SRON (NL)
17:40 – 18:00	Methane chemistry simulated from global to regional scale	Patrick Jöckel, DLR-IPA (D)
18:00 – 18:30	<b>Discussion</b>	
<b>~19:30</b>	<b>Conference Dinner</b>	At "Forsthaus Kasten", Transportation will be arranged

## Thursday, 1 December 2016

Official begin of the programme: 9:00

<b>Session 3: Introduction to the CoMet Airborne Instrumentation (9:00 -12:00)</b> <i>Chair: Jörg Schmidt</i>		
9:00 – 9:20	DLR Aircraft (HALO, Cessna)	Andrea Hausold and Martina Hierle, DLR-Flight Experiments (D)
9:20 – 9:40	CHARM-F	Axel Amediek, DLR-IPA (D)
9:40 – 10:00	MAMAP	Konstantin Gerilowski, U Bremen (D)
<b>10:00 – 10:30</b>	<b>Coffee break</b>	
10:30 – 10:50	In-situ and sampler (JIG/JAS)	Christoph Gerbig, MPI-BGC (D)
10:50 – 11:10	BAHAMAS/SHARC and Dropsondes	Martin Zöger, DLR-FX (D)
11:10 – 11:30	Cessna Instrumentation	Anke Roiger and Julian Kostinek, DLR-IPA (D)
11:30 – 12:00	<b>Discussion</b>	
<b>12:00 – 13:30</b>	<b>Lunch break / Group Photo / Visits to aircraft (tbc)</b>	
<b>Session 4: Ground-based and balloon-borne instruments (13:30-15:40)</b> <i>Chair: Daniel Zavala-Araiza (tbc)</i>		
13:30 – 13:50	In-situ measurements in Poland	Jaroslav Necki, U Krakow (PL)
13:50 – 14:10	TCCON Network	Dietrich Feist and Sabrina Arnold, MPI-BGC (D)
14:10 – 14:50	Mobile FTIR	Frank Hase, KIT (D), André Butz, DLR-IPA (D) and Jia Chen, TUM (D)
14:50 – 15:30	Aircore	Huilin Chen, Groningen (NL), Cyril Crevoisier LMD (F) and Rigel Kivi, FMI (FIN)
15:30 – 15:40	<b>Discussion</b>	
<b>15:40 – 16:00</b>	<b>Coffee break</b>	



<b>Session 5: Related airborne and satellite missions (16:00-18:00)</b> <i>Chair: Clémence Pierangelo</i>		
16:00 – 16:30	Activities in the US/ACT America	Ken Davis, Penn State (US)
16:30 – 16:50	MERLIN	Gerhard Ehret, DLR-IPA (D)
16:50 – 17:10	CO <sub>2</sub> and CH <sub>4</sub> from IASI and IASI-NG and plans for cal/val activities	Cyril Crevoisier, LSCE (F)
17:10 – 17:30	Towards monitoring of natural and anthropogenic CO <sub>2</sub> and CH <sub>4</sub> fluxes from space - status and perspectives	Heinrich Bovensmann, U Bremen (D)
17:30 – 17:50	ESA Earth Observation GHG Remote Sensing Activities	Thorsten Fehr (ESA)
17:50 – 18:00	<b>Discussion</b>	

## Friday, 2 December 2016

Official begin of the programme: 9:00

<b>Session 5 (cntd): Related airborne and satellite missions (9:00 -10:00)</b> <i>Chair: Clémence Pierangelo</i>		
9:00 – 9:20	TROPOMI CO and CH <sub>4</sub> and validation	Jochen Landgraf, SRON (NL)
9:20 – 9:40	GOSAT	Akihiko Kuze, JAXA (JPN) via Webconf or André Butz, DLR-IPA (D)
9:40 – 10:00	<b>Discussion</b> (Validation aspects)	
<b>10:00 – 10:30</b>	<b>Coffee break</b>	
10:30 – 10:50	Beyond CoMet: CoMet 2.0	Andreas Fix, DLR-IPA (D)
10:50 – 12:30	Miscellaneous <ul style="list-style-type: none"> <li>• Lesson learned from previous campaigns</li> <li>• Organisation of Co-operation (e.g. EUFAR, FAAM, NASA, ESA, ...)</li> <li>• Campaign implementation</li> <li>• Campaign planning tools, webpage</li> <li>• Exploitation of results</li> <li>• Action Items</li> <li>• AOB</li> </ul>	
12:30	<b>Adjourn</b>	

End of the Workshop: 13:00