

CONFERENCE PROGRAMME

<p>Tuesday, 30 June PLENARY SESSION chair: Rachel Heijne 09:00 Opening Welcome by the president of the VVM Address by the rector magnificus of Wageningen University, Martin Kropff Address by the Dutch minister of Housing, Spatial Planning and Environment Plenary Lectures chair: Erik ter Avest 09:30 SUSTAINABILITY, Leen Hordijk 10:15 HFCs: SCENARIOS OF GLOBAL CONSUMPTION AND THEIR POLICY IMPLICATIONS. Guus Velders 11:00 Plenary interactive voting session. Joop van Meel 11:30 BREAK</p>			
<p>PARALLEL SESSIONS</p>			
<p>THEME I</p>			
<p>session 1.1 Industrial processes, Crop production and Animal husbandry chair: André van Amstel</p>			
11:50	DIFFERENCES IN N ₂ O EMISSION FROM FERTILIZED GRASSLAND AND ARABLE LAND IN SANDY SOILS J. Mosquera, G.L. Velthof, J. Huis in 't Veld, E. Hummelink	11:50	THEME II session 2.1 General papers on methane chair: Torben Christensen
12:20	ESTIMATING INDIRECT AGRICULTURAL EMISSION FROM AQUIFIERS USING DISSOLVED NO ₃ ⁻ , N ₂ O AND N ₂ Reinhard Weil, Daniel Weymann, Heiner Flessa	12:20	Keith R. Lassey, Shaun Ragnauth UV LIGHT INDICES METHANE EMISSION FROM PLANT BIOMASS: MECHANISM AND ISOTOPE STUDIES I. Vignaro, R. Holzinger, T. Röckmann, A. van Dijk, F. Keppler, M. Greule, W.A. Brand, H. van Weelden, J. van Dongen
12:40	INTEGRATED USE OF CAPRI AND EUROPE-DNDC: A MODELING FRAMEWORK TO ASSESS THE CROSS-COMPLIANCE EFFECTS ON EUROPEAN AGRICULTURAL ENVIRONMENT Follador M., Leip A., Orlandini L., Marchi G. and Weiss F	12:40	M. Steinbacher, M.K. Volmer, S. Henne, D. Brunner, C. Hueglin, S. Reimann HIGH-PRECISION MEASUREMENTS OF COLUMN-AVERAGED CO ₂ AND CH ₄ DERIVED FROM NEAR-INFRARED FTs AT THE TOCON SITE GARMISCH (47°N, 11°E, 744 M ASL): FIRST YEAR OF OPERATION AND CONTRIBUTION TO CO ₂ VALIDATION R. Sussmann, M. Rettinger, T. Borsdorff, F. Forster
13:00	LUNCH BREAK	13:00	session 2.1 General papers on methane (ctd) chair: Peter Bergamaschi
14:00	ESTIMATION OF N ₂ O EMISSION FACTORS FOR SOILS DEPENDING ON ENVIRONMENTAL CONDITIONS AND CROP MANAGEMENT Jan Peter Lesschen, Gerard Velthof	14:00	FEN MEADOW IN THE NETHERLANDS P.S. Kroon, A. Hensen, H.J.J. Jonker, W.H. van 't Veen, A.T. Vermeulen
14:20	ASSESSMENT OF THE IMPACT OF VARIOUS MITIGATION OPTIONS ON NITROUS OXIDE EMISSIONS CAUSED BY THE AGRICULTURAL SECTOR IN EUROPE Hans Kros, Wim de Vries, Gerard Velthof, Gert Jan Reinds, Jan Peter Lesschen	14:20	METHANE AND NITROUS OXIDE EMISSIONS IN THE NETHERLANDS: AMBIENT MEASUREMENTS COMPARED TO THE NATIONAL INVENTORIES S. van der Laan, R.E.M. Neubert, H.A.J. Meijer
14:40	FIELD MANAGEMENTS AFFECT YIELD, SOIL CARBON, AND GREENHOUSE GASES EMISSION OF WINTER WHEAT IN NORTH CHINA PLAIN Yunfan Wan, Yu'e Li, Qinzhu Gao, Xiaobo Qin, Erda, Lin	14:40	IN-SITU CH₄ OBSERVATIONS AT THE HIGH-ALPINE SITE JUNGFRALJOCH M. Steinbacher, M.K. Volmer, S. Henne, D. Brunner, C. Hueglin, S. Reimann
15:00	MEMBRANE INLET MASS SPECTROMETRIC ANALYSIS OF WETLAND SEDIMENTS USING N-ISOTOPE LABELLING: THE EFFECTS OF TEMPERATURE, NITRATE ADDITION AND WATER TURBULENCE ON GASEOUS EMISSIONS. W.E. McAuley, D. S. Reay, K. A. Smith, K. V. Heal	15:00	MEASUREMENTS OF METHANE EMISSIONS FROM A QUASH-GLOBAL NETWORK OF FTIR STATIONS B. Dilis, M. DelMazière, C. Vigouroux, F. Forster, R. Sussmann, T. Borsdorff, P. Bousquet, T. Blumenstock, M. Buchwitz, S. Dalsoren, P. Demoulin, P. Duchatelet, C. Frankenberg, J. Hannigan, F. Hase, J. Iwasaki, N. Jones, J. Klyft, I. Kramer, E. Mahieu, J. Mellqvist, L. Neef, J. Notholt, K. Petersen, I. Pison, O. Schneising, A. Strandberg, K. Strong, S. Szopa, J. Taylor, P. van Velthoven, M. van Weele, S. Wood
15:20	METHANE MITIGATION POTENTIAL OF A GARLICDERIVATIVE, YUCCA AND CA-FUMARATE IN LACTATING DAIRY COWS S.M. van Zijderveld, J.R. Newbold, J. Dijkstra, W.J.J. Gerrits, H.B. Perdok	15:20	GLACIAL WETLAND DISTRIBUTION AND METHANE EMISSIONS ESTIMATED FROM AN ENSEMBLE OF COUPLED CLIMATE SIMULATIONS. Weber, S.L., W.H.J. Toonen
15:40	BREAK	15:40	INVERSE MODELING OF CH₄ FLUX FROM SCIAMAGHYAND GROUND-BASED OBSERVATIONS USING TM5/4D-VAR Lisa Neef, Michiel van Weele, Peter van Velthoven
16:00	session 1.1 Industrial processes, Crop production and Animal husbandry (ctd) chair: Adrian Leip	16:00	GLOBAL GREENHOUSE GAS EMISSIONS GROWING FASTER SINCE 2000. Jos G.J. Olivier, John A. van Aardenne, Savi Monni, Ulrike M. Döring, Lorenzo Orlandini, Valerio Pagliari, Jeroen A.H.W. Peters, Fulgencio Sanmartin and Greet Maenhout
16:20	MODELLING EFFECTS OF GRASS MANAGEMENT ON MANURE N AND METHANE EMISSION IN LACTATING COWS A. Bannink, J.L. Ellis, J. France, J. Dijkstra	16:20	VALIDATION OF METHANE DATA PRODUCTS FROM CHEMISTRY TRANSPORT MODELS AND SCIAMAGHY SATELLITE RETRIEVAL ALGORITHMS, USING A QUASH-GLOBAL NETWORK OF FTIR STATIONS B. Dilis, M. DelMazière, C. Vigouroux, F. Forster, R. Sussmann, T. Borsdorff, P. Bousquet, T. Blumenstock, M. Buchwitz, S. Dalsoren, P. Demoulin, P. Duchatelet, C. Frankenberg, J. Hannigan, F. Hase, J. Iwasaki, N. Jones, J. Klyft, I. Kramer, E. Mahieu, J. Mellqvist, L. Neef, J. Notholt, K. Petersen, I. Pison, O. Schneising, A. Strandberg, K. Strong, S. Szopa, J. Taylor, P. van Velthoven, M. van Weele, S. Wood
16:40	QUANTIFICATION OF GREENHOUSE GAS EMISSIONS FROM SOIL APPLIED SWINE EFFLUENT BY DIFFERENT METHODS K. R. Sistani, J. G. Warren, S. Shearer, and S. Higgins	16:40	FROM AN ENSEMBLE OF COUPLED CLIMATE SIMULATIONS. Weber, S.L., W.H.J. Toonen
17:00	EFFECT OF STRAW BEDDING IN PIG HOUSING ON EMISSION OF GREENHOUSE GASES C.M. (Karin) Groenestein	17:00	INVERSE MODELING OF CH₄ FLUX FROM SCIAMAGHYAND GROUND-BASED OBSERVATIONS USING TM5/4D-VAR Lisa Neef, Michiel van Weele, Peter van Velthoven
17:20	INNOVATION IN ANIMAL FEED: EFFECTS AND FEASIBILITY OF CHANGES TO ANIMAL FEED Jan van Bergen	17:20	GLOBAL GREENHOUSE GAS EMISSIONS GROWING FASTER SINCE 2000. Jos G.J. Olivier, John A. van Aardenne, Savi Monni, Ulrike M. Döring, Lorenzo Orlandini, Valerio Pagliari, Jeroen A.H.W. Peters, Fulgencio Sanmartin and Greet Maenhout
17:40	FUTURE DEVELOPMENT OF THE UPSTREAM GHG EMISSIONS FROM NATURAL GAS INDUSTRY, FOCUSING ON RUSSIAN GAS FIELDS AND EXPORT PIPELINES Stefan Lechtenböhmer, Carmen Dienst	17:40	OPPORTUNITY, POTENTIAL AND BARRIER FOR ENERGY PRODUCTION FROM METHANE UTILIZATION IN AGRICULTURE AND SOLID WASTE MANAGEMENT. Srintornthep Towprayoon
		17:40	DRAMATIC REDUCTION IN EMISSIONS OF METHANE FROM LANDFILLS Maria Vatananu, René Boerboom
		17:40	UNUSED METHANE ESCAPES FROM CHP STATION CHIMNEYS - PERSPECTIVE: POWER BENEFITS AND EMISSION REDUCTIONS IN GLASSHOUSE HORTICULTURE Maus Dieleman
		17:40	RESULTS OF CHEESE CHAIN PARTNERS' PILOT PROJECT: ADJUSTMENT OF MIXED FEED PRODUCTION CAN REDUCE GREENHOUSE GAS EMISSIONS J. van Bergen
		17:40	THEME III session 3.1 Industry chair: Hink Perdok
11:50		11:50	ANALYSIS OF REPORTED EUROPEAN EMISSIONS SHOWS IMPROVEMENT IN CONTAINMENT OF HYDROFLUOROCARBONS Archie McCulloch and F. Illuzzi, Harry Thewissen
12:20		12:20	ENERGY SAVINGS AND HFC REDUCTION-DATA HOTELS CAN ACHIEVE DOUBLE GREEN BENEFITS Maus Dieleman
12:40		12:40	SESSION 3.1 Industry (ctd) chair: Harry Thewissen
14:00		14:00	LOW GLOBAL WARMING FLUOROCARBONS Ian R. Shankland, Rajiv R. Singh
14:20		14:20	COST-EFFECTIVE GREENHOUSE GAS EMISSIONS REDUCTIONS BY SWITCHING TO A NEW MOBILE AIR CONDITIONING REFRIGERANT Kristen N. Taddonio, Stephen O. Andersen
14:40		14:40	GREEN SWITCHING - OPPORTUNITY TO AVOID SF6 EMISSION FROM ELECTRICAL NETWORKS. Wim Porte
15:00		15:00	REDUCING GREENHOUSE GAS EMISSIONS THROUGH PROPER SF6 HANDLING PROCEDURES - STATE OF THE ART IN THE EUROPEAN INDUSTRY Jean-Luc. Bessède, Thor Endre
15:20		15:20	THE F-GHGS VERIFYING PROCESS IN THE TAIWAN OPTOELECTRONIC SEMICONDUCTOR INDUSTRY. Joey (Ching-Hui) Lu, Hwei-Wei Lo , LU-Hsiu Cheng
16:00		16:00	SESSION 3.1 Industry (ctd) chair: Javier Pérez-Ramírez
16:20		16:20	CONTROL OF N₂O IN INDUSTRY: OVERVIEW OF PRESENT TECHNOLOGY AND CHALLENGES AHEAD. Javier Pérez-Ramirez
16:40		16:40	A CONFINED TECHNOLOGY FOR NOX AND N₂O ABATEMENT - CONTRIBUTION TO REDUCING EMISSIONS FROM NITRIC ACID PLANTS. Michael Groves, Alexander Sasonov
17:00		17:00	OPPORTUNITY, POTENTIAL AND BARRIER FOR ENERGY PRODUCTION FROM METHANE UTILIZATION IN AGRICULTURE AND SOLID WASTE MANAGEMENT. Srintornthep Towprayoon
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Wednesday, 1 July		PLENARY SESSION		PLENARY SESSION	
08:30		chair: Heleen de Coninck		ROLE OF NCGGS IN CLIMATE NEGOTIATIONS. Bert Metz	
09:15		THE METHANE TO MARKETS PARTNERSHIP: KEY ACCOMPLISHMENTS, LESSONS LEARNED, AND ROLE IN FUTURE INTERNATIONAL EFFORTS TO ADDRESS CLIMATE CHANGE. Paul Gunning			
10:00		BREAK			
PARALLEL SESSIONS					
THEME I					
session 1.2 Emission inventories and High tier emission models		session 2.2 Special methane session on recent changes		session 3.2 Government	
chair: Julio Mosquera		chair: Keith Lassey		chair: Terry Barker	
10:20	CAN NON-CO ₂ GREENHOUSE GAS EMISSIONS FROM INDUSTRIAL FACILITIES BE INCLUDED IN EMISSIONS TRADING? T. Pulles	10:20	RECENT FINDINGS IN RELATION TO WETLAND SOURCES OF METHANE AT HIGH LATITUDES Torben Christensen	10:20	CAN REDUCTIONS IN METHANE, BLACK CARBON AND TROPOSPHERIC OZONE PROVIDE SWIFT CLIMATE RESPONSES IN THE ARCTIC AND GLOBALLY?
10:50	FACTORS CONTROLLING SPATIAL VARIABILITY OF N ₂ O EMISSION FROM SOILS G.L. Velthof, J. Mosquera, E. Hummelink, C.L. van Beek, J.W. van Groenigen	10:50	THE ROLE OF TROPICAL BIOMASS BURNING IN THE RECENT INCREASE OF ATMOSPHERIC CH ₄ . S. Houweling, C. Frankenberg, G. van der Werf, E. Dlugokencky, P. Bergamaschi, M. Krol, I. Aben	10:50	EMISSION ABATEMENT POTENTIALS AND COSTS FOR NON-CO ₂ GREENHOUSE GASES IN ANNEX I COUNTRIES ACCORDING TO THE GAINS MODEL Wilfried Winiwarter, Lena Höglund-Isaksson, Wolfgang Schöpp, Antti Toikka, Fabian Wagner, Markus Amann
11:10	THE DUTCH TIER 3 APPROACH TO ESTIMATE METHANE EMISSION IN DAIRY COWS FOR THE NATIONAL INVENTORY REPORT A. Bannink, J. Dijkstra	11:10	RECENT CHANGES IN METHANE MIXING RATIO, AND ITS 13C CONTENT OBSERVED IN THE SOUTHWEST PACIFIC REGION K.R. Lassey, G.W. Brailsford, A.M. Bromley, R.J. Martin, R.C. Moss, W. Allan, B.J. Connor, A.J. Gomez, A.M.S. McMillan, H. Schaefer, V. Sherlock, D. Smale	10:20	FLUORINATED GHG EMISSIONS MITIGATION POTENTIALS AND COSTS IN GLOBAL REGIONS IN 2020 AND 2030 Tatsuya Hanaoka, Mikiko Kainuma
11:30	EMISSION, SPATIAL DISTRIBUTION AND RADIATIVE FORCING OF ELEMENTAL AND ORGANIC CARBON FOR EUROPE IN 2005 Antoon Visschedijk, Hugo Denier, van der Gon, Marijn Schaap, Rianne Droge, Christer Johansson and Zbigniew Klimont	11:30	RECENT METHANE SOURCES AND SINKS INFERRED BY INVERSIONS OF ATMOSPHERIC TRANSPORT AND CHEMISTRY P. Bouequet, I. Pison, F. Chevallier, A. Fortems, M. Ramonet, M. Schmidt, E. Dlugokencky, J. Miller, R. Langenfelds, P. Steele, P. Peylin, P. Clais	11:50	ECONOMIC VS. PHYSICAL-BASED METRICS FOR COMPARING DIFFERENT GREENHOUSE GASES: DO THEY MATCH? Daniel J.A. Johansson
11:50	EUROPEAN WIDE PREDICTIONS OF NITROGEN AND GREENHOUSE GAS FLUXES IN RESPONSE TO CHANGES IN LAND COVER AND LAND MANAGEMENT Wim de Vries, Diti Oudendag, Gerard Velthof, Jan Peter Lesschen, Hans Kros, Jan-Cees Voogd, Elke Stehfest, Lex Bouwman	12:00	RECENT AIRBORNE METHANE MEASUREMENTS OVER THE AMAZON Veronika Beck, Christoph Gerbig, Julia Steinbach, Hulin Chen, Olaf Kelle, M.O. Andreae, Niklas Jürgens, Steven C. Wofsy, Marcos Longo, Elaine Gottlieb, Paulo Artaxo, Karla Longo	12:10	POTENTIAL REDUCTION IN MITIGATION COSTS FROM MULTI-GAS ABATEMENT: A META-ANALYSIS BASED ON EMF2.1 AND OTHER LITERATURE ON GDP COSTS Terry Barker, Svetlana Tashchilova
12:30	LUNCH AND POST-SESSION /				
13:30	workshop 1 Emission trading including NCGG for agriculture chair: Theo Leupen, Dick Both	13:30	workshop 2 NCGG chain effects chair: Carmen Heinze, Jan van Bergen	13:30	workshop 3 NCGG subject as voted by participants chair: Wies Broers, Ida Smit
THEME II					
session 1.2 Emission inventories and High tier emission models (ctd)		session 2.2 Special methane session on recent changes (ctd)		session 3.2 Government (ctd)	
chair: Tinus Pulles		chair: Michiel van Weele		chair: Paul Gunning	
15:00	DIRECT N ₂ O EMISSIONS FROM AGRICULTURAL SOILS IN EUROPE AS CALCULATED WITH A PROCESS-ORIENTED SIMULATION MODEL Adrian Leip, Giulio Marchi, Lorenzo Orlando	15:00	SATELLITE VALIDATION OF COLUMN-AVERAGED METHANE ON GLOBAL SCALE: HARMONIZED DATA FROM 13 FTIR GROUND STATIONS VERSUS LAST GENERATION ENVISAT/SIAMACHY RETRIEVALS R. Susmann, F. Forster, T. Borsdorff, B. Dilis, M. De Mazière, C. Vigouroux, T. Blumenstock, M. Buchwitz, J.P. Burrows, P. Duchatelet, C. Frankenberg, J. Hannigan, F. Hase, N. Jones, J. Klyft, E. Mahieu, J. Mellqvist, J. Notholt, K. Petersen, O. Schneising, K. Strong, J. Taylor	15:00	OVERVIEW OF DUTCH POLICY ON NON CO ₂ GREENHOUSE GASES. Herman Walthaus
15:20	TOP-DOWN ESTIMATION OF HALOGENATED GREENHOUSE GAS EMISSIONS USING 222-RN AS TRACER Christoph A. Keller, Dominik Brunner, Stefan Reimann	15:30	METHANE CONCENTRATION VARIABILITY ACROSS EURASIA: COMPARISON BETWEEN TROICA MEASUREMENTS AND TM3 MODEL RESULTS O.A. Tarasova, N.F. Elansky, S. Houweling, C.A.M. Brenninkmeijer	15:30	THE POTENTIAL OF BLUE ENERGY TO REDUCE EMISSIONS OF CO ₂ AND NON-CO ₂ GREENHOUSE GASES Joanna Kuleszo, Carolien Kroeze, Jan Post
THEME III					
session 1.2 Emission inventories and High tier emission models (ctd)		session 2.2 Special methane session on recent changes (ctd)		session 3.2 Government (ctd)	
chair: Theo Leupen, Dick Both		chair: Sander Houweling		chair: Herman Walthaus	
16:10	BREAK	16:30	VERIFYING THE ATMOSPHERIC BURDEN OF ANTHROPOGENIC EMISSIONS OF METHANE IN NW EUROPE USING THE RECENTLY IMPROVED EUROPEAN NETWORK OF TALL TOWERS A.T. Vermeulen, P. Bergamaschi, M. Ramonet, M. Schmidt, E. Popa, B. Verheggen, R. Thompson, M. Heimann S. van der Laan, R.E.M. Neubert, J. Moncrieff, L. Häszipra	16:30	ISSUES ASSOCIATED WITH ANALYZING A CAP ON CONSUMPTION OF FLUORINATED GREENHOUSE GASES Deborah Ottinger, Dave Godwin
		16:50	ROLE OF ATMOSPHERIC DYNAMICS ON INTERANNUAL VARIABILITY IN CH ₄ MIXING RATIO Prabir Patra	16:50	THE N ₂ O EMISSIONS OF BIOMASS THROUGH DIFFERENT FEEDSTOCKS AND SUGGESTIONS FOR IMPROVEMENT Karin Arnold
		17:20		17:10	MONTRÉAL VS. KYOTO AS THE FUTURE FRAMEWORK FOR FLUORINATED GREENHOUSE GASES Jason Anderson

Thursday, 2 July		PLENARY SESSION	
08:30	TACKLING AIR POLLUTION AND CLIMATE CHANGE: A BUMPY ROAD TOWARDS THE COMMON GOOD, Frank Raes	chair: Peter Builtjes	
09:15	IGBP – AN EARTH SYSTEM PERSPECTIVE ON NON-CO ₂ GREENHOUSE GASES, Sybil Seitzinger		
10:00	BREAK		
PARALLEL SESSIONS			
THEME I			
session 1.3 Verification of emissions			
chair: Guus Velders			
10:20	GROWTH OF HFC-125 (CHF ₂ CF ₃) IN THE ATMOSPHERE DETERMINED FROM IN-SITU OBSERVATION AT AGAGE AND SOGE OBSERVATORIES. S. O'Doherty, D.M. Cunnold, B.R. Miller, J. Mühle, A. McCulloch, P.G. Simmonds, S. Reimann, M.K. Vollmer, B.R. Grealley, R.G. Prinn, P.J. Fraser, L.W. Porter, A.J. Manning, C.R. Lunder, N. Schmidbauer, O. Hermansen, P.K. Salameh, C.M. Harth, P.B. Krummel, R.H.J. Wang, L.P. Steele, R.F. Weiss	chair: Michael Rumberg	
10:50	ATMOSPHERIC CONCENTRATIONS OF SF ₆ , CF ₄ OVER CENTRAL EUROPE DURING THE PERIOD 2001-2008. J. Bartyzel, J. Rosiek, K. Rozanski, W.T. Sturges	chair: Michael Rumberg	
11:10	GLOBAL AND REGIONAL EMISSION ESTIMATIONS USING HALOCARBON MEASUREMENTS AT BACKGROUND SITES. Stefan Reimann, Dominik Brunner, Stephan Henne, Martin K. Vollmer, Steve Montzka, Simon O' Doherty, Peter G. Simmonds	chair: Michael Rumberg	
11:30	H ₂ ISOTOPOLOGUES ALONG A MERIDIONAL ATLANTIC TRANSECT	chair: Michael Rumberg	
Sylvia Walter, Thomas Röckmann			
THEME II			
session 2.2 Special methane session on recent changes (ctd)			
chair: Thomas Röckmann			
10:20	A NEW EMISSION ESTIMATION APPROACH BASED ON LAGRANGIAN PARTICLE DISPERSION MODELLING AND KALMAN-FILTER BASED INVERSION. D. Brunner, S. Henne, M. Vollmer, and S. Reimann	chair: Michael Rumberg	
10:40	METHANE MICROSEEPAGE IN DRYLANDS: SOIL IS NOT ALWAYS A CH ₄ SINK	chair: Michael Rumberg	
Giuseppe Etiope			
11:10	THE NEWLY DISCOVERED AEROBIC METHANE RELEASE FROM TERRESTRIAL VEGETATION: CAUSES AND CONSEQUENCES. D. Bruhn, T.N. Mikkelson, J. Øbro, W.G.T. Willats, P. Ambus	chair: Michael Rumberg	
11:30	ASSESSING CAUSES OF THE ATMOSPHERIC METHANE SLOWDOWN FROM ITS MIXING AND ISOTOPIC RATIOS. Fuu-Ming Kai, Stanley C. Tyler, James T. Randerson, Donald R. Blake	chair: Michael Rumberg	
11:50	IMPROVED EUROPEAN CH ₄ TOP-DOWN ESTIMATES BASED ON THE TM5-4DVAR INVERSE MODELLING SYSTEM. Peter Bergamaschi, Jan Fokke Meirink, Maarten Krol, Maria Gabriella Villani, Frank Dentener, Martina Schmidt, Michel Ramonet, Frank Meinhardt, Alex Vermeulen, Rebecca Fisher, Euan Nisbet, Tuula Aalto and Edward J. Dlugokencky	chair: Michael Rumberg	
session 2.3 Atmospheric processes (ctd)			
chair: Carl Brenninkmeijer			
13:30	THE INDIRECT CLIMATE FORCING OF OZONE. W.J. Collins, S. Sitch	chair: Erik ter Avest	
14:00	SURFACE OZONE TRENDS AND RADIATIVE FORCING IMPLICATIONS	chair: Erik ter Avest	
14:30	GLOBAL WARMING POTENTIAL AND GLOBAL TEMPERATURE POTENTIAL FOR THE NON CO ₂ GREENHOUSE GASES (NOGGI). L.L. Karol, A.A. Kiselev, V.A. Frolikis	chair: Erik ter Avest	
14:50	THE SPECTRUM OF GREENHOUSE GASES IN THE SOUTH ASIAN SUMMER MONSOONAL PLUME AS MEASURED BY THE CARIBIC AIRCRAFT.	chair: Erik ter Avest	
C.A.M. Brenninkmeijer, T.S. Rhee, T. Schuck, A. Zahn, F. Stenr, D. Oram and Pvan Velthoven			
15:10	REGIONAL CLIMATE MODELING OF AIRCRAFT INDUCED CLOUDINESS	chair: Erik ter Avest	
Andrew Ferrone, Philippe Marbaix, Ben Matthews, Jean-Pascal van Ypersele			
THEME III			
session 3.2 Government 3.1 (ctd)			
chair: Michael Rumberg			
10:20	WASTE SECTOR'S CONTRIBUTION TO REDUCING GHG EMISSIONS	chair: Erik ter Avest	
Marlene Sieck			
10:40	THREE-LEVEL POLICY, INTERVENTION AND CORPORATE COMMITMENT SHOWS PROMISE	chair: Erik ter Avest	
Erik ter Avest			
11:00	USING THE TOOL KIT EFFECTIVELY	chair: Erik ter Avest	
Erik ter Avest, Cees Egmond			
11:20	USING BLACK CARBON METRICS IN CLIMATE POLICY	chair: Erik ter Avest	
Marcus C. Sarofim			
11:40	HOW THE ECONOMIC CRISIS AND CARBON CREDIT REVENUES COULD RESHAPE ADIPEC ACID AND HCFC-22 MARKETS	chair: Erik ter Avest	
Axel Michaelowa, Jørund Buen			
12:00	AN ANALYSIS OF REDUCTION OPPORTUNITIES FOR CONSUMPTION OF HFCS AND IMPLICATIONS FOR US CLIMATE POLICY	chair: Erik ter Avest	
David S. Godwin, D.S.			
12:20	FROM OPEN PROGRAMME TO CONCRETE MARKET ASSIGNMENTS: INCREASED AMOUNT OF KNOWLEDGE ENABLES TARGETED SPENDING OF GOVERNMENT FUNDING.	chair: Erik ter Avest	
Arja Even			
session 3.3 Public private partnership			
chair: Erik ter Avest			
13:30	FLUORINATED GAS EMISSION REDUCTIONS – A DECADE OF PROGRESS THROUGH VOLUNTARY PARTNERSHIPS WITH INDUSTRY	chair: Erik ter Avest	
Sally Rand			
13:50	A GOOD PPP WORKS	chair: Erik ter Avest	
Erik ter Avest			
14:10	PROGRESS IN PFC EMISSION REDUCTIONS FROM THE ALUMINUM SECTOR IN CHINA THROUGH THE ASIA PACIFIC PARTNERSHIP FOR CLEAN DEVELOPMENT AND CLIMATE	chair: Erik ter Avest	
Sally Rand			
session 3.4 Agriculture			
chair: Cecile de Klein			
14:30	MODELING MARGINAL ABATEMENT COST CURVES FOR AGRICULTURAL GHG EMISSIONS WHEN PRODUCERS ADOPT MULTIPLE MITIGATION OPTIONS	chair: Erik ter Avest	
Steven Rose, Robert Beach, Changsheng Li, William Salas, Adam Daigneault			
15:00	POTENTIALS IN AGRICULTURE	chair: Erik ter Avest	
Tomoko HASEGAWA and Yuzuru MATSUOKA			
15:20	CLIMATE YARDSTICK-RESULTS AND PRACTICAL EXPERIENCES WITH AN INTERNET BASED INSTRUMENT TO CALCULATE AND REDUCE GREENHOUSE GASES ON FARM	chair: Erik ter Avest	
E.V. Elferink			
16:00	workshop 6 NCGG subject in line with joint wishes and needs from chair: Carmen Heinze, Arja Even		
16:00	workshop 5 NCGG policy instruments participants chair: Wies Broens, Erik ter Avest		
16:00	workshop 4 Aerosols chair: Frank Raes, Maarten Krol		
15:40	BREAK		

12:30 LUNCH AND POSTSESSION II

Friday, 3 July PLENARY SESSION chair: Carolien Kroeze 08:30 RECENT TRENDS IN THE ATMOSPHERIC METHANE BURDEN. L. Bruhwiler 09:15 REDUCING THE CARBON FOOTPRINT OF AGRICULTURE WITH SPECIAL EMPHASIS ON METHANE. H. B. Perdok 10:00 BREAK			
PARALLEL SESSIONS			
THEME I session 1.3. Verification of emissions (ctd) chair: Christy van Beek			
10:20	FUTURE TRENDS IN EMISSIONS OF N ₂ O FROM RIVERS, ESTUARIES AND CONTINENTAL SHELVES Carolien Kroeze, Egon Dumont, Sybil Seitzinger	10:20	THEME II session 2.4 Primary and secondary aerosols chair: Frank Raes AEROSOL DIRECT RADIATIVE EFFECT FROM OMI: CONCEPT AND FIRST RESULTS B. Veefkind, P. Wang, J.P. Veefkind, W.H. Knap, P.F. Levelt
10:50	NEGLECTING SINKS FOR N ₂ O AT THE EARTH'S SURFACE: DOES IT MATTER? Carolien Kroeze, Lex Bouwman, Caroline P. Slomp, Alf Syakila	11:50	ABSORBING AEROSOLS OVER CLOUDS: RADIATIVE FORCING MEASUREMENTS FROM SPACE P. Stammes, L.G. Tilstra, M. de Graaf
11:10	NITROUS OXIDE EMISSIONS ESTIMATES FROM AN IRRIGATED DAIRY-GRAZED PASTURE USING CHAMBERS AND MICROMETEOROLOGICAL MEASUREMENTS, AND N ₂ -DNDC MODEL Surinder Sagar, MJ Harvey, J Singh DL Giltrap, AMS McMillan, E Pattay, AM Bromley, D Dow, RJ Martin, R Moss	11:10	PROGRESS IN THE DETERMINATION OF THE SEA SPRAY SOURCE FUNCTION FROM SATELLITE DATA. Monique Albert, Astrid Manders, Gerrit de Leeuw, Martin Schaap
11:30	SPATIAL AND TEMPORAL VARIABILITY OF N ₂ O EMISSIONS FROM A DRAINED AND GRAZED GRASSLAND ON PEAT SOIL C.L. van Beek, M. Pleijter, J.W. van Groenigen, P.J. Kuikman	11:20	INFLUENCE OF STRATOSPHERIC SULFURIC ACID AEROSOL SIZE DISTRIBUTION ON AEROSOL POSSIBILITY TO COMPENSATE GREENHOUSE WARMING V.A. Frolikis, I.L. Karol session 2.5 Monitoring from space/aircraft/surface chair: Pieterma Levelt CLIMATE ALTERING SPECIES AT THE ABC-PYRAMID LABORATORY: HIMALAYAN-KARAKORUM, NEPAL. Michela Malone, Jgor Arduini, Francesco Furlani, Umberto Giostra, Francesco Uguccioni, Paolo Bonasoni, Paolo Cristofanelli, Angela Marinoni, Elisa Vuillermoz
LUNCH BREAK session 1.3. Verification of emissions (ctd) chair: Christy van Beek			
12:20	CONTRIBUTION OF N DEPOSITION TO N OXIDE EMISSIONS IN EUROPEAN TEMPERATE FORESTS N. Eickenscheidt, R. Brumme, E. Veldkamp	13:20	LONG TERM OBSERVATIONS OF HALOGENATED GREENHOUSE GASES IN A EUROPEAN CONTINENTAL BACKGROUND STATION FOR ASSESSING ATMOSPHERIC TRENDS AND ANNUAL GROWTH RATES. Francesco Furlani, Jgor Arduini, Luca Belfiore, Daniela Cava, Umberto Giostra, Michela Malone
13:40	THREE YEARS OF CONTINUOUS NITROUS OXIDE EMISSIONS FROM A CROPPED SOIL IN A SEMI-ARID CLIMATE (AUSTRALIA) Louise Barton, L., Raif Kiese, Renee Buck, David Gatter, Debra Donovan, Daniel Carter, Daniel Murphy and Klaus Butterbach-Bahl	13:40	PROVIDING SPACE-BASED CONSTRAINTS ON THE CHEMICAL COMPOSITION OF AEROSOLS J.F. Veefkind, B. Veiheinnann, K.F. Boersma, P.F. Levelt
14:00	EVALUATION OF WATER MANAGEMENT STRATEGIES TO DECREASE NITROUS OXIDE AND METHANE EMISSION FROM PEAT SOILS WITH THE SWAP-ANIMO MODEL R.F.A. Hendriks, R.J. Wolleswinkel and J.J.H. van den Akker	14:00	TROPOMI: A NEW DUTCH INSTRUMENT FOR MEASURING THE TROPOSPHERE P.F. Levelt, E.A.A. Aben, J.P. Veefkind, M. Dobber, M. van Weele, R. Hoogsvaen, J. de Vries, H. Visser, G. Otter
15:00	Plenary closing session with "Test of Ideas" debate chair: Peter van der Geer	14:20	N ₂ O BEHAVIOR BETWEEN THE LOWER STRATOSPHERE AND THE SURFACE SUGGESTED BY AIRCRAFT OBSERVATIONS AND MODEL Kentaro Ishijima, Prabir K. Patra, Toshinobu Machida, Hidekazu Matsueda, Yosuke Sawa, Masayuki Takigawa, Takakiyo Nakazawa
		THEME III session 3.4. Agriculture (ctd) chair: Wilfried Winiwarter KNOWLEDGE TRANSFER AND PRACTICAL PROJECTS - DAIRY FARMERS CHOOSE THEIR OWN REDUCTION MEASURES Ida Smit and Jan van Bergen HOW DO WE REACH OUR CLIMATE GOALS IN THE NETHERLANDS FOR AGRICULTURE? Maarten Kool THE ROLE OF NON-CO ₂ GREENHOUSE GASES IN COST-EFFECTIVE STRATEGIES TO REDUCE POLLUTION BY AGRICULTURE IN THE CZECH REPUBLIC Martina Havlikova, Carolien Kroeze INTEGRATED USE OF CAPRI AND EUROPE-DNDC: A MODELING FRAMEWORK TO ASSESS THE CROSS-COMPLIANCE EFFECTS ON EUROPEAN AGRICULTURAL ENVIRONMENT Follador M., Leip A., Orlandini L., Marchi G. and Weiss F	
		session 3.4. Agriculture (ctd) chair: Jan van Bergen THE EFFECT OF GREENHOUSE GAS EMISSION CHARGING ON THE PROFITABILITY OF NEW ZEALAND PASTORAL FARMING SYSTEMS. Cecile A.M. de Klein, Duncan Smeaton, Harry Clark MODELING AGRICULTURE IN CHINA N ₂ O EMISSIONS AND MITIGATION MEASURES Li, Y., Erda Lin, Wilfried Winiwarter, A SYNERGISTIC EFFECT OF STRAW AND WATER MANAGEMENT AS THE NEW APPROACH FOR GHG MITIGATION IN RICE FIELD Tassanee Japhasut-anun, Sirtintornthep Towprayoon	

POSTERS

- P 1 LONG-TERM FERTILIZATION EFFECTS ON SOIL ORGANIC MATTER AND THE NET-EXCHANGE RATES OF N₂O AND CH₄ ON A SANDY ARABLE SOIL, Jäger, N. and Flessa, H.
- P 2 SIMULATION OF N₂O PEAK EMISSIONS WITH SWAP-ANIMO P.C. Stolk, R.H.A. Hendriks, C.M.J. Jacobs, J.W. van Groenigen
- P 3 BIOGENIC EMISSIONS OF NON-CO₂ GREENHOUSE GASES DERIVED FROM LAND USE DATA, Elke Hodson
- P 4 METHANE EMISSIONS FROM WETLANDS: INFLUENCE OF THE EL NINO SOUTHERN OSCILLATION, F.M. O'Connor, N. Gedney, W.J. Collins
- P 5 GROUND-BASED SOLAR ABSORPTION MEASUREMENTS OF CH₄ IN THE TROPICS, A.K. Petersen, T. Warneke, J. Notholt, C. Frankenberg, O. Schrems
- P 6 PROGRESS TOWARDS MEASURING THE EFFICACY OF MITIGATION STRATEGIES FOR N₂O EMISSIONS USING MICROMETEOROLOGICAL TECHNIQUES. AMS McMillan, M.J. Harvey, G.W. Brailsford, A.M. Bromley, R. Moss, R. Martin, M. Evans, K.R. Lassey
- P 7 SOURCES AND SINKS OF CH₄ AND CO₂ IN A BOREAL FOREST BASED ON SOIL, PLANT AND STAND LEVEL MEASUREMENTS, Anders Lindroth, Patrick Crill, Meelis Mölder, Patrik Vestin, Anders Båth, Leif Klemedtsson
- P 8 SEASONAL CYCLE OF THE TROPOSPHERIC METHANE OBSERVED AND MODELED OVER SIBERIA, S.Maksyutov, T. Machida, T.Saeki, P. Patra, O. Tarasova, S. Houweling
- P 9 MODELLING OF THE LONG-TERM EVOLUTION OF ATMOSPHERIC METHANE AND ITS STABLE ISOTOPES, G. Montell, S. Houweling, B.H. Vaughn, S.C. Tyler, T. Röckmann
- P 10 N₂O AND CH₄ FLUXES IN A TEMPERATE HEATHLAND UNDER FUTURE CLIMATIC CONDITIONS , Mette S. Carter, Per Ambus, Kristian Albert, Klaus S. Larsen, Michael Andersson, Louise C. Andresen, Teis N. Mikkelsen, Claus Beier
- P 11 PILOT PROJECT SHOULD PROVIDE INSIGHT: CHAIN PARTNER HELPS TO REDUCE EMISSIONS IN DAIRY FARMING Jan van Bergen
- P 12 SHORT-TERM METHANE FLUXES OF A MANAGED GRASSLAND ECOSYSTEM ON THE SWISS PLATEAU, Rebecca Hiller, Werner Eugster
- P 13 TREND ANALYSIS AND MODEL COMPARISON WITH THE EMEP MODEL OF CH₄ AND CO MEASURED BY A GROUND-BASED SOLAR FTIR IN HARESTUA, NORWAY. , J. Klyft, J. Mellqvist, D. Simpson
- P 14 METHANE AND NITROUS OXIDE EMISSION FROM PADDY FIELD UNDER LONG-TERM FERTILIZATION TREATMENTS, Qin Xiaobo, Li Yu'e, Liu Keying, Wan Yunfan
- P 15 HIGH-RESOLUTION SIMULATION OF ATMOSPHERIC METHANE USING A GLOBAL TRANSPORT MODEL , Tazu Saeki, Shamil Maksyutov, Heon-Sook Kim
- P 16 Inverse modeling of European CH₄ emissions: Sensitivity of derived emissions to observational network, M. Gabriella Villani, Peter Bergamaschi, Frank Dentener, Jan Fokke Meirink, Maarten Krol
- P 17 ATMOSPHERIC METHANE: A COMPARISON BETWEEN EMAC-GCM MODEL SIMULATIONS AND CARIBIC AIRCRAFT MEASUREMENTS, Zimmermann P.H., Brenninkmeijer C.A.M., Lelieveld J. and the CARIBIC Team
- P 18 WATER VAPOUR ACCUMULATION MECHANISMS IN THE WESTERN MEDITERRANEAN BASIN DURING THE WARM SEASON: ITS ROLE IN THE DEVELOPMENT OF CENTRAL EUROPEAN EXTREME RAINFALLS, G. Gangoiti, E. Sáez de Cámara, L. Alonso, M. Navazo, N. Gómez, J. Iza, J. A. García, J.L. Ibardia, M.M. Millán
- P 19 ATMOSPHERIC CHEMISTRY OF SELECTED SECOND GENERATION CFC ALTERNATIVES, O.J. Nielsen, Meshkat Javadi, Elna J. K. Nilsson, Matthew S. Johnson, Timothy J. Wallington, Michael D. Hurley
- P 20 CARBON MONOXIDE AND AEROSOLS CONTENTS, BOUNDARY LAYER PARAMETERS AND ESTIMATION OF THE CO SOURCES INTENSITY IN MOSCOW CITY, V. Raktin, E. Fokeeva, R. Kuznetsov, A. Emilenko, V. Kopeikin
- P 21 RECONSTRUCTION OF HISTORIC BLACK CARBON CONCENTRATIONS IN EUROPE FROM UNDISTURBED LAKE SEDIMENTS , Hugo Denier van der Gon, Tom van Hoof, Timme Donders, Martijn Schaap Frans Bunnik, Holger Cremer, Peter Tromp, Antoon Visschedijk, Ingrid Kroon, Peter Builtjes
- P 22 TORCH: AN ESF RESEARCH NETWORKING PROGRAM ON THE (TALL TOWER) HIGH PRECISION OBSERVATIONS OF GREENHOUSE GASES IN EUROPE, A.T. Vermeulen, M.E. Popa, D. Brunner, M. Heimann, G. Hansen, A. Lindroth, J.A. Morgui, P. Seibert, T. Vesala

- P 23 SATELLITE MAPPING OF NITRIC OXIDE EMISSION FROM INDIAN REGION, Sachin D. Ghude, R. J. van der A.G. Beig
- P 25 THE RESEARCH ON NON-CO₂ GREENHOUSE GASES AT THE MONTE CIMONE GAW STATION (2,156 M A.S.L). , Michela Maione, Jgor Arduini, Francesco Uguccioni, Francesco Furlani, Umberto Giostra, Paolo Bonasoni, Francescopiero Calzolari, Paolo Cristofaneli, Rocco Duchi, Angela Marinoni
- P 26 NMHC LEVELS IN BACKGROUND AIR. THREE YEARS OF IN SITU HIGH TEMPORAL RESOLUTION MEASUREMENTS OF 59 (C2-C10) COMPOUNDS., M. Navazo, N. Durana, L. Alonso, M. C. Gómez, J. A. García, J. L. Ilerdia, G. Gangoiti, J. Iza
- P 27 MEASUREMENT OF NON CARBON DIOXIDE GREENHOUSE GASES AT OF FEDERAL ENVIRONMENT AGENCY (UBA), GERMANY, Ludwig Ries, Frank Meinhardt, Olaf Bath
- P 28 IDENTIFYING AND QUANTIFYING EUROPEAN SOURCES OF HYDROFLUOROCARBONS BY BACK-ATTRIBUTE MODELLING, Umberto Giostra, Jgor Arduini, Luca Belfiore, Francesco Furlani and Michela Maione
- P 29 ASSESSMENT EFFICACY OF INTERNATIONAL REGULATIONS ON CFC'S CONCENTRATION IN THE ATMOSPHERE OF POLAND, I. Iiwka, J. Lasa, I. Grombik, J. Bielewski, D. Limanówka
- P 30 FIRST RESULTS FROM THE NEW JRC GREENHOUSE GAS MONITORING SITE AT ISPRA, ITALY, Bert Scheeren, Peter Bergamaschi, Niels R. Jensen, Carsten Gruening, Ignacio Goded, and John van Aardenne
- P 31 "EMISSIONS OF NON-CO₂ GREENHOUSE GASES IN THE NETHERLANDS: INVENTORY 1990-2007; PROJECTION 2008-2020, C.J. Peek"