NCGG6 FINAL PROGRAM

WEDNESDAY 2 NOVEMBER

Plenary Session - all plenary sessions are in room "University of Amsterdam 2-4"

Chair: Carolien Kroeze *(Wageningen University / Open University of The Netherlands)*

8:30 **Vera Dalm** (VVM, The Netherlands)

8:45 **Mike Hulme** (University of East Anglia, UK) - Why we disagree about climate change

9:30 **Wilfried Winiwarter** (IIASA, Austria) - Cost efficiency in greenhouse gas mitigation: the role of non-CO_2 compounds

10:15 Break

	Parallel Sessions Room: "University of Amsterdam 1"		**Parallel Sessions Room: "Stellenbosch"**		**Parallel Sessions Room: "Sorbonne"**		**Parallel Sessions Room: "Oxford"**		**Parallel Sessions Room: "University of Amsterdam 2-4"**
	Session 1.1: Animal Production		Session 2.1: N_2O direct emissions		Session 3.1: Atmospheric measurements (ground-based monitoring)		Session 4.1: Policy		Session 5.1: Regional inventories
	Chair: Erik ter Avest		*Chair: Karin Groenestein*		*Chair: Michela Maione*		*Chair: John van Aardenne*		*Chair: André van Amstel*
11:00	*The role of animal feed diet in the reduction of non-CO_2 greenhouse gas emissions including sciencepolicy interactions and perspectives* **Avest, Erik ter, Fernagut, Marianne**	11:00	*Emission factors for methane and nitrous oxide from manure management and mitigation options* **Groenestein, C.M.J. Mosquera, S.M. van der Sluis**	11:00	*Long term measurements of non-CO_2 greenhouse gases at the WMO-GAW Global station of Monte Cimone, Northern Apennines, Italy* **Michela Maione, Umberto Giostra, Jgor Arduini, Francesco Furlani, Francesco Graziosi, and Paolo Bonasoni**	11:00	*On the role of non-CO_2 greenhouse gas emissions in long-term (2050) climate mitigation policies* **John van Aardenne, Ricardo Fernandez, Francois Dejean, Andreas Barkman, Hans Eerens and Robert Koelemeijer**	11:00	*Assessment of Air Pollution and GHG Mitigation Strategies for Pakistan using the GAINS Model* **Tahira Munir**
11:30	*Does biodiversity ameliorate the trade-off between productivity and non-CO_2 Greenhouse Gas emission rates in forage crops?* **Ribas A., Llurba R., Gouriveau F., Altimir N., Connolly J. and Sebastià M.T.**	11:30	*The effect of changes in groundwater level on N_2O emissions for various soil conditions* **P.C. Stolk, C.M.J. Jacobs and E.J. Moors**	11:30	*An analysis of three years of CO_2, CH_4, N_2O and SF_6 observations and 222Radon-based emission estimates from the JRC-Ispra (Italy) monitoring station* **Bert Scheeren and Peter Bergamaschi**	11:30	*Global projections for anthropogenic reactive nitrogen emissions to the atmosphere: an assessment of scenarios in the scientific literature* **Detlef P van Vuuren, Lex F Bouwman, Steven J Smith and Frank Dentener**	11:30	*Elevated CH_4 levels in regional atmosphere over Silesia, southern Poland* **J. Necki, M. Zimnoch, L. Chmura, A. Korus, J. Rosiek, M. Galkowski, K. Rozanski**
11:50	*Oxidation of methane emissions from manure storages in soils* **Hans Oonk, Jan Koopmans**			11:50	*Methane emissions from Africa; evaluation of observations from CARIBIC passenger aircraft flights between Frankfurt and Cape Town/Johannesburg* **Carl A.M. Brenninkmeijer, Tanja Schuck, Angela Baker, Armin Rauthe-Schöch, and Andreas Zahn**	11:50	*Future impact of non-land based traffic emissions on atmospheric ozone and OH – an optimistic scenario and a possible mitigation strategy* **Ø. Hodnebrog, T. K. Berntsen, M. Gauss, V. Grewe, I. S. A. Isaksen, B. Koffi, G. Myhre, D. Olivié, M. Prather, F. Stordal, S. Szopa, Q. Tang, P. van Velthoven, J. E. Williams, K. Ødemark**	11:50	*Estimation non-CO_2 greenhouse gases emission from forest fires in managed and unmanaged forests of Russia in 2001-2010* **Vladimir Korotkov, Nikolay Smirnov**
12:10	*Genetic selection for lower predicted methane emissions in dairy cattle* **Y. de Haas, J.J. Windig, M.P.L. Calus, A. Bannink, M. de Haan, J. Dijkstra, R.F. Veerkamp**			12:10	*Changes in the correlation slope of the atmospheric CO_2 and CH_4 for the pollution events at Hateruma island: recent increase in the aseasonal CH_4 emissions from China?* **Y. Tohjima, M. Kubo, H. Mukai, T. Machida, C. Minejima, and K. Kita**	12:10	*Managing agricultural greenhouse gas emissions: linking theory and policy* **Dominic Moran, Bob Rees and Antje Branding**	12:10	*Monitoring Methane Emissions from Northern Peatlands: A modelling and measurement approach* **Marin A. Tomasic, Timo Vesala, Sampo Smolander, Maarit Raivonen, Sami Haapanala, Tuomas Laurila, Mika Aurela**
12:30	Lunch	12:30	Lunch	12:30	Lunch	12:30	Lunch	12:30	Lunch
	Session 1.2: Mechanistic understanding and model predictions		Session 2.2: N_2O Indirect emissions		Session 3.2 Atmospheric measurements (ground-based monitoring)		Session 4.2: Emission reduction from agriculture		Session 5.2: Global Methane Initiative (GMI)
	Chair: Brajesh K Singh		*Chair: Daniel Weymann*		*Chair: Chair: Arjan Hensen*		*Chair: Harm Smit*		*Chair: Paul Gunning*
13:30	*Role of nitrogen in carbon mitigation in forest ecosystems* **Catriona A Macdonald, Ian C Anderson, Richard D Bardgett and Brajesh K Singh**	13:30	*Indirect emissions and isotopologue signatures of N_2O from agricultural drainage water of a Pleistocene lowland catchment in North-Eastern Germany* **D.Weymann, R.Well, P. Kahle, B. Tiemeyer and H. Flessa**	13:30	*InGOS: the EU observation network for NCGG* **Arjan Hensen, Alex Vermeulen, Albert Bleeker**	13:30	*Progress and results of Dutch covenant with agricultural sectors on improvement of energy-efficiency and emission reduction of greenhouse gases including methane and nitrous oxide* **Smit, Harm, Plantinga, Martijn, Bonnier, Puck, Moerkerken, Albert**	13:30	*GMI's Focus on Methane in the Wastewater Sector* **Chris Godlove**
14:00	*Interactions between nitrogenous fertilizers and methane cycling in wetland and upland soils* **Paul LE Bodelier**	14:00	*The impact of global warming on nutrient export by rivers and associated nitrous oxide emissions* **Irene Boers, Carolien Kroeze**	14:00	*Long-term monitoring of non-CO_2 greenhouse gases and aerosols in Asia and Oceania using voluntary observing ships* **Hiroshi Tanimoto, Hideki Nara, Hitoshi Mukai, Yukihiro Nojiri, Yasunori Tohjima, Toshinobu Machida, Yoko Yokouchi, Shigeru Hashimoto**	14:00	*Non-CO_2 emissions and reduction potentials from AFOLU in Asia* **Tomoko Hasegawa and Yuzuru Matsuoka**	14:00	*Evaluation of greenhouse gas emissions from municipal UASB sewage treatment plants* **B. Heffernan, J. Blanc, H. Spanjers**
14:20	*Soil microbial sources of nitrous oxide: recent advances in knowledge, emerging challenges and future direction* **Elizabeth M Baggs**	14:20	*Modeling Global Trends in N Flows from Land to Sea and Associated N2O Emissions* **Wilfried P.M.F. Ivens, Carolien Kroeze, Ansje J. Löhr, Daisy J.J. Tysmans, Jikke van Wijnen**	14:20	*In-situ high accuracy measurement of atmospheric methane mixing ratios at the four GAW stations in China* **Ling-Xi ZHOU**	14:20	*Cost-Effectiveness and Efficiency of national and international policy instruments to reduce non-CO_2 greenhouse gas emissions by the agricultural sector* **Avest, Erik ter, Fernagut, Marianne**	14:20	*Opportunities for incorporation of biogas capture and utilization in Brazil – a perspective for wastewater treatment plants* **Eduardo P. Jordão, Dr. Eng.**
14:40	*Assessing existing peatland models for their applicability for modelling greenhouse gas emissions from tropical peat soils* **Jenny Farmer, Robin Matthews, Jo U Smith, Pete Smith and Brajesh K Singh**	14:40	*New findings of oceanic sink of atmospheric nitrous oxide* **Marcela Cornejo, Laura Farías, Mauricio Gallegos and Juan Faúndez**	14:40	*Atmospheric CH_4 and N_2O measurements in the French Network of Greenhouse Gas Monitoring (RAMCES)* **Martina Schmidt, Morgan Lopez, Marc Delmotte, Isabelle Pison, Michel Ramonet, Camille Yver, and Philippe Ciais**	14:40	*The Situation of Non CO_2 Greenhouses Gases Air Pollution in Uganda* **Moses Kusemererwa**	14:40	*Towards more sustainable technologies for wastewater treatment in Latin America: is biogas production an opportunity or a threat?* **Adalberto Noyola**
15:00	*Soil emissions of nitrous oxide and nitric oxide in response to incremental increases in fertilizer additions in a maize (Zea mays) field in western Kenya* **Jonathan E. Hickman, Cheryl A. Palm, Jim Tang, Jerry M. Melillo, and Patrick Mutuo**	15:00	*A preliminary analysis of the relationship among the concentrations of N_2O, NO_3^-, and CO_2 in grainage water flow lysimeters with shallow groundwater table* **Kazunori Minamikawa, Seiichi Nishimura, Kazuyuki Yagi**	15:00	*Comparisons of TransCom models simulated methane vertical profiles with in situ observations* **Ryu Saito, Prabir K. Patra, Colm Sweeney, Toshinobu Machida, and TransCom-CH4 modelers**	15:00	*Mitigation of nitrous oxide emissions from Irish agriculture: A prospective analysis* **M. I. Khalil, M. Kuhs, and C. Byrne**	15:00	*Methane emissions from tropical and temperate wetland trees* **Sunitha R. Pangala, Vincent Gauci, Edward R. Hornibrook and David J. Gowing**
15:20	Break	15:20	Break	15:20	Break	15:20	Break	15:20	Break
	Session 1.3: Deforestation		Session 2.3: N and N_2O modeling		Session 3.3: Satellite observations		Session 4.3: Emission reduction from agriculture and sewage		Session 5.3: Young Scientist Session
	Chair: Lou Verchot		*Chair: Wim de Vries*		*Chair: Sander Houweling*		*Chair: Robert H. Beach*		
15:50	*CH_4 and N_2O flux changes from forest conversion to rubber and oil palm plantation in Jambi, Sumatra, Indonesia* **Aini, F. K., Hergoualc'h, K., Verchot, L. V., Smith, J.**	15:50	*Impacts of management measures on nitrous oxide emissions from agricultural soils in Europe using different model approaches* **Wim de Vries, Hans Kros and Gert Jan Reinds**	15:50	*Methane and Carbondioxide from space: the SCIAMACHY, GOSAT and Precursor S5 missions* **Sandrine Guerlet, Dinand Schepers, Andre Galli, André Butz, Christian Frankenberg, Otto Hasekamp, Sander Houweling, Jochen Landgraf, Ilse Aben,**	15:50	*Global Marginal Abatement Cost Curves for Agricultural GHG Emissions* **Robert H. Beach, Sara Bushey Ohrel, and Shaun Ragnauth**	15:50	*Conveners: Petra Stolk, Robbert Biesbroek, Clifford Chuwah, Sunitha Pangala*
16:20	*Changes in soil CH_4 fluxes from the conversion of tropical peat swamp forests: a meta-analysis* **Hergoualc'h K., Verchot L.V.**	16:20	*Climatic consequences of anthropogenic reactive nitrogen input to terrestrial ecosystems* **Sönke Zaehle, Philippe Ciais, Andrew D. Friend, Vincent Prieur**	16:20	*Inverse modeling of the recent trend and inter-annual variation of CH_4 emissions using in situ measurements and SCIAMACHY* **S. Houweling, P. Bergamaschi, M. Krol, C. Frankenberg, E.J. Dlugokencky and I. Aben**	16:20	*Review on trade-offs and co-benefits from climate mitigation measures in agricultural production* **Verspecht Ann, Vandermeulen Valerie, Ter Avest Erik, Van Huylenbroeck Guido**		*How to achieve a sustainable 2061?* **Contributors: Matthijs Hisschemöller, Jasper van Vliet**
16:40	*Forest soil as sink or source of greenhouse gases: a case study of species effects on nitrous oxide and methane fluxes in Karura forest - Kenya* **Thiongo Margaret K., Mungai David N., Musingi John K., Neufeldt H. and Verchot Louis V.**	16:40	*Application of Landscape-DNDC for the assessment of regional greenhouse gas emissions for the State of Saxony, Germany under different climate and land use change scenarios from 2000 to 2050* **Edwin Haas, Ralf Kiese, Steffen Klatt, Alexander Fröhlich, Klaus Butterbach**	16:40	*Inter-comparison of GOSAT and SCIAMACHY xCH_4 retrievals, and implications for inverse modeling of methane sources and sinks* **Guillaume Monteil, Sander Houweling, Sandrine Guerlet, Dinand Schepers, Ilse Aben, Thomas Roeckmann**	16:40	*Nutritional management to reduce the carbon footprint of dairy and beef products* **H.B. Perdok, R.B.A. Hulshof, J.B. Veneman, J.R. Newbold and S.M. van Zijderveld**		This highly interactive session aims to bring together young scientists from different disciplines and discuss how to achieve a sustainable 2061.
17:00	*The effects of forest conversion to agriculture on nitrogen cycling and soil N_2O emissions at three highland sites in Western Kenya* **Louis V. Verchot, Henry Neufeldt, James Mutegi, Laure Dutaur and Margaret Thiong'o**	17:00	*Evaluation of the impact of low versus high resolution data on nitrous oxide emissions from a rural landscape* **Hans Kros and Wim de Vries**	17:00	*Estimation of aerosol water through combined analysis of remote sensing measurements and aerosol-hygroscopicity modelling* **Arjan van Beelen MSc, Dr. Geert-Jan Roelofs, Dr. Otto Hasekamp, Prof. dr. Thomas Roeckmann**	17:00	*Ancillary benefits of greenhouse gas mitigation measures in the mid-term using AIM/Enduse[Global] model* **Tatsuya Hanaoka**		The key-note speakers will give their ideas on how to achieve a sustainable 2061, from a natural scientists and a social scientists point of view.
17:20	*The effects of soil carbon stock changes on non-CO_2 greenhouse gas fluxes in Western Kenya* **Henry Neufeldt, Louis V. Verchot, Keith Shepherd**	17:20	*Greenhouse gas emissions from the urban water cycle: CH_4 and N_2O emissions from drinking water production, sewerage and wastewater treatment* **Marthe S. de Graaff, Marcel Zandvoort, Kees Roest, Jos Frijns, Theo Janse, Arjan Hensen, Mark C.M. van Loosdrecht**	17:20	*Methane variability in the upper troposphere and lower stratosphere and their relevance for emission inversions constrained by satellite observations* **Michiel van Weele, Jason E. Williams, Peter F.J. van Velthoven, Tanja J. Schuck, Carl A.M. Brenninkmeijer**	17:20	*Recent cases of reduction of greenhouse gas emissions by innovations in agricultural sector* **Ruud Thijssen**		After the presentations we welcome you to our "world cafe" to discuss these issues further and reflect on the scientific challenges and lie ahead us.

NCGG6 FINAL PROGRAM

THURSDAY 3 NOVEMBER

Plenary Session – room "University of Amsterdam 2-4"

Chair: Tinus Pulles *(TNO, The Netherlands)*

8:30 **Paul Gunning** (US-EPA, US) - Opportunities to reduce non-CO_2 greenhouse gases: emissions, mitigation options, policy approaches and the U.S. experience

8:50 **Jan Willem Erisman** (ECN, The Netherlands) - Interactions of nitrogen with climate change and opportunities for integrated management strategies

9:10 **Poster Introduction**

11:00 Break

	Parallel Sessions Room: "University of Amsterdam 1"		**Parallel Sessions Room: "Stellenbosch"**		**Parallel Sessions Room: "Sorbonne"**		**Parallel Sessions Room: "Oxford"**		**Parallel Sessions Room: "University of Amsterdam 2-4"**
	Session 1.4: Energy/Waste		Session 2.4: Industry and F-gases		Session 3.4: Inverse modeling (Global)		Session 4.4: Global emissions		
	Chair: Adrian Leip		*Chair: Erik ter Avest*		*Chair: Peter Bergamaschi*		*Chair: Jos Olivier*		
11:30	*Nitrous oxide production and emission in an intermittently aerated activated sludge system of an urban wastewater treatment plant in the tropics* **William Z. de Mello, Débora C. Kligerman, Andrezza de S. Piccoli, Renato P. Ribeiro, Jaime L. M. Oliveira, Ariane C. Brotto**	11:30	*Developing a Facility-level Reporting Program for Sources of Non-CO_2 Gases: The United States Experience* **Lisa Hanle, Suzanne Kocchi and Shaun Ragnauth**	11:30	*Top-down estimates of European CH_4 and N_2O emissions based on 5 different inverse models* **P. Bergamaschi, M. Corazza, A. Segers, A. Vermeulen, A.J. Manning, M. Athanassiadou, R. Thompson, I. Pison, P. Bousquet, U. Karstens, M. Schmidt, M. Ramonet, F. Meinhardt, T. Alto, L. Haszpra, J. Moncrieff, E. Popa, E.G Nisbet, R.E. Fisher, M. Steinbacher, A. Jordan, S. O'Doherty, S. Piacentino, and E. Dlugokencky**	11:30	*EDGAR 4.2 FT2008 GHG emissions using the 2006 IPCC guidelines: uncertainties and comparisons for Annex I countries* **Jos G.J. Olivier, Greet Janssens-Maenhout, Suvi Monni, Ulrike M. Döring, Marilena Muntean, John A. van Aardenne, Valerio Pagliari, Jeroen A.H.W. Peters**	
12:00	*Control factors promoting nitrous oxide emissions from a conventional activated sludge process in a tropical country* **Ariane Coelho Brotto, Débora Cynamon Kligerman, William Zamboni de Mello**	12:00	*Leakage rate measurements of HFC refrigerants in Dutch supermarkets* **M. Dieleman, R. Jans, G.H. ter Avest**	12:00	*Global Reactive Gases Forecasts and Reanalysis in the MACC project* **O. Stein, J. Flemming, A. Inness, J. Kaiser, M.G. Schultz**	12:00	*Projections of Global Anthropogenic Non-CO_2 Greenhouse Gas Emissions* **Shaun Ragnauth**		
12:20	*Improvement of non-CO_2 Greenhouse Gas Emission Estimates for Oil and Gas Operations in Russia* **Nina E. Uvarova**			12:20	*Comparison of heavy perfluorocarbon top-down emission estimates with bottom-up inventories* **Diane J. Ivy, Tim Arnold, Matthew Rigby, Munkhbayar Baasandorj, Jens Mühle, Chris M. Harth, Peter K. Salameh, L. Paul Steele, Michael Leist, Paul B. Krummel, Jim B. Burkholder, Paul J. Fraser, Ray F. Weiss and Ronald G. Prinn**	12:20	*Global Anthropogenic Methane Emissions 2005 to 2030: Technical Mitigation Potential and Costs* **Lena Höglund-Isaksson**		
12:40	Lunch	12:40	Lunch	12:40	Lunch	12:40	Lunch		
Poster Session in the lobby									
	Session 1.5: Role of N in climate change		Session 2.5: F-gases		Session 3.5: Inverse modeling (Global)		Session 4.5: Mitigation options and measurements (GRA)		
	Chair: Wim de Vries		*Chair: Stefan Reimann*		*Chair: Matthew Rigby*		*Chair: Andy Reisinger*		
14:30	*Quantifying impacts of nitrogen use in European agriculture on global warming potential* **Wim de Vries, Johannes Kros, Gert Jan Reinds and Klaus Butterbach-Bahl**	14:30	*Comparison of measurement-based global emission estimates of halocarbons with emission scenarios used in international assessments* **Stefan Reimann, Martin K. Vollmer, Guus J. M. Velders, Matt Rigby**	14:30	*Regional and global emissions of AGAGE gases using Eulerian and Lagrangian chemical transport models* **Matt Rigby, Alistair Manning and Ron Prinn**	14:30	*Improving the national inventory of agricultural nitrous oxide emissions from the UK (InveN$_2$Ory)* **Chadwick, D; Rees, RM; Williams, J; Smith, P; Skiba, UM; Hiscock, K; Manning, AJ; Watson, C; Smith, KA; Anthony SG; Moorby J; Mottram T**		
15:00	*Denitrification and associated soil N_2O emissions due to agricultural activities in a changing climate* **Klaus Butterbach-Bahl and Michael Dannenmann**	15:00	*Estimating UK, Irish and North West European emissions of specific HFCs and SF6 from 1995 to 2010 using the NAME-inversion methodology* **A. J. Manning, S. O'Doherty, P. G. Simmonds and R. G. Derwent**	15:00	*Reanalysis of tropospheric sulfate aerosol and ozone for the period 1980-2005 using ECHAM5-HAMMOZ* **Luca Pozzoli, Greet Janssens-Maenhout, Thomas Diehl, Isabelle Bey, Martin Schultz, Hans Feichter, Elisabetta Vignati, and Frank Dentener**	14:50	*New Zealand Validation and Field tests of GreenFeed, an automated system for the measurement of methane fluxes from ruminants* **Gary Waghorn, Cesar Pinares, Patrick Zimmerman, Scott Zimmerman**		
15:20	*The effect of farm and catchment management on nitrogen transformations and N_2O losses from pastoral systems — can we offset the effects of future intensification?* **Cecile AM de Klein, Ross M Monaghan**	15:20	*Tier 2 emission inventories for ozone-depleting substance substitutes compared to top-down chemical consumption data for the U.S.* **David S. Godwin, P.E.**	15:20	*Seasonal variability of regional N_2O flux estimated by inverse modeling* **K. Ishijima, P. Patra, A. Crotwell, E. Dlugokencky, P. Tans, E.A. Kort, S.C. Wofsy and A. Itoh**	15:10	*Effects of a nitrification inhibitor on soil nitrogen dynamics and N_2/N_2O emissions from Irish grassland soils after application of slurry* **Ernfors M, McGeough K, Laughlin RJ, Watson CJ, Müller C, Brennan F, Griffiths BS, Cahalan E, Richards KG**		
15:40	*Dietary strategies to reducing N excretion from cattle: implications for methane emissions* **J Dijkstra, O Oenema and A Bannink**	15:40	*CHF3 (HFC-23) emission trend response to CHClF2 (HCFC-22) production and recent emission abatement measures* **B. R. Miller, M. Rigby, L. J. M. Kuijpers, P. B. Krummel, L. P. Steele, M. Leist, P. J. Fraser, A. McCulloch, C. Harth, P. Salameh, J. Mühle, R. F. Weiss, R. G. Prinn, R. H. J. Wang, S. O'Doherty, B. R. Greally and P. G. Simmonds**	15:40	*The TransCom-N_2O Experiment: Assessing the uncertainties in atmospheric inversion models for nitrous oxide emissions* **R. L. Thompson, P. Patra, A. T. Vermeulen, U. Karstens, M. Corazza, P. Bergamaschi, K. Ishijima, E. Saikawa, P. Bousquet, F. Chevallier, E. Dlugokencky, C. Nevison, S. Zaehle, Y. Tohjima, E. Kort, S. Wofsy, T. Machida, C. Sweeny, T. Aalto, L. Hazpra, F. Meinhardt, S. O'Doherty, J. Moncrieff, M. E. Popa, M. Steinbacher, A. Jordan, T. Schuck, C. A. M. Brenninkmeijer, M. Rigby, R. Prinn, R. Weiss, and P. Fraser**	15:30	*Denitrification and the N_2O mole fraction of limed grassland soils in a long-term incubation* **Suzanne Higgins, Ronald J. Laughlin, Catherine J. Watson**		
						15:50	*Greenhouse gas and odour emissions from livestock manure: Effects of storage conditions and pre-treatment* **Søren O. Petersen, Nadia Dorno, Sabine Lindholst, Anders Feilberg, Anders P.S. Adamsen and Jørgen Eriksen**		
16:00	Break	16:00	Break	16:00	Break	16:10	Break	16:00	Break
	Session 1.6: Role of N in climate change		Session 2.6: F-gases		Session 3.6: Inverse modeling (Regional)		Session 4.6: Metrics/Radiative Forcing		Session 5.4: Dialogue on agriculture
	Chair: Sönke Zaehle		*Chair: Stefan Reimann*		*Chair: Peter van Velthoven*		*Chair: André van Amstel*		*Chair: Vera Dalm*
16:30	*Carbon–nitrogen interactions on land at global scales: current understanding in modelling climate biosphere feedbacks* **Sönke Zaehle and Daniela Dalmonech**	16:30	*Measurements of Halogenated Compounds at Gosan (Jeju Island, Korea) for Validation of Emissions from East Asia* **Jooil Kim, Shanlan Li, Jens Mühle, Andreas Stohl, Sunyoung Park, Ray Weiss, Kyung-Ryul Kim**	16:30	*Regional-scale atmospheric inversions of European CH_4 and N_2O emissions* **U. Karstens, C. Rödenbeck, C. Gerbig, M. Heimann, T. Koch, P. Bergamaschi, K. Trusilova, A.T. Vermeulen, M. Schmidt, M. Ramonet, F. Meinhardt, T. Aalto, L. Haszpra, J. Moncrieff, E.G. Nisbet, R.E. Fisher, M. Steinbacher, A. Jordan, S. O'Doherty, S. Piacentino, and E. Dlugokencky**	16:30	*GWP, alternative metrics, and their uncertainties* **Katsumasa Tanaka, Terje Berntsen, Jan S. Fuglestvedt, Daniel J. A. Johansson, Brian C. O'Neill**	16:30	Highly interactive debating session, chaired by Vera Dalm (VVM), to share knowledge on solutions for the agricultural sector, and needs for agricultural innovations and policy framing
17:00	*Nitrogen fertilizer induced greenhouse gas emissions in China* **Xuejun Liu and Fusuo Zhang**	17:00	*Implications of Non-Anode Effect Related PFC Emissions from Primary Aluminum* **Sally Rand, Dr. Jerry Marks**	17:00	*Methane in the Amazon: Atmospheric constraints from aircraft observations and forward and inverse modeling framework* **V.Beck, C.Gerbig, R.Kretschmer, T.Koch, D.Pillai, U. Karstens, R.Ahmadov, M.M.Bela, K.M.Longo, S.R.Freitas, S.C.Wofsy, P.Artaxo, M.O. Andreae, T.Roeckmann, P.Bergamaschi, L.Bruhwiler, S.Houweling, C. Prigent**	17:00	*Implications of alternative metrics for global and regional stabilisation costs and greenhouse gas emissions from agriculture and land-use change* **A. Reisinger, P. Havlik, K. Riahi, O. van Vliet, M. Obersteiner, M. Herrero**		
17:20	*Estimating current and future nitrous oxide emissions from African agriculture: challenges and opportunities* **Jonathan E. Hickman, Martina Havlikova, Carolien Kroeze, Cheryl A. Palm**	17:20	*First Measurements and Global Emission Estimates of Six Perfluorocarbons* **M.J. Newland, D.E. Oram, J.C Laube, C.E. Reeves, P.J. Fraser, C.A.M. Brenninkmeijer, T. Röckmann**	17:20	*NMHC sources at altitude GAW background sites in Southern Germany* **Leuchner, M., Plass-Dülmer, C., Ries, L., Gubo, S., Junek, R.**	17:20	*Radiative Forcing Estimations Due to Antarctic Ozone Changes* **Victor Frolkis and Igor Karol**		
17:40	*Estimation of N_2O fluxes at the regional scale: data, models, challenges* **A Leip, M Busto, M Corazza, P Bergamaschi, R Koeble, R Dechow, Suvi Monni, W de Vries**	17:40	*The European Semiconductor Industry's agreement to reduce 'Perfluorocompound' emissions: actions leading to results* **Shane Harte, Harry Thewissen, Francesca Illuzzi**			17:50	*Heating of a smoke-filled boundary layer by absorption of solar radiation* **R. Boers, J. de Laat, P. Veefkind**		
19:30	**Conference Dinner with music by *Valenky***								

NCGG6 FINAL PROGRAM

FRIDAY 4 NOVEMBER

Plenary Session - all plenary sessions are in room "University of Amsterdam 2-4"

Chair: Carolien Kroeze *(Wageningen University / Open University of The Netherlands)*

8:30 **Harry Clark** (New Zealand Agricultural Greenhouse Gas Research Centre) – The Global Research Alliance: opportunities and challenges for scientific research to contribute to food carbon constrained world

9:10 **Victoria Hatton** (New Zealand Agricultural Greenhouse Gas Research Centre) – The initial stocktake of GHG inventory and mitigation research activities in Alliance member countries: insights, lessons and opportunities

9:40 **Martin Scholten** (Wageningen University, The Netherlands) – The Livestock Research Group of the Global Research Alliance: enhancing research collaboration and integration across diverse food production systems

10:10 Break

	Parallel Sessions **Room: "University of Amsterdam 1"**		**Parallel Sessions** **Room: "Stellenbosch"**		**Parallel Sessions** **Room: "Sorbonne"**		**Parallel Sessions** **Room: "Oxford"**	
	Session 1.7: Global perspectives and country overviews (GRA) *Chair: Paul Vriesekoop*		Session 2.7: Atmospheric observations *Chair: Peter van Velthoven*		Session 3.7: Research networks and collaboration (GRA) *Chair: Victoria Hatton*		Session 4.7: Regional diversity and opportunities (GRA) *Chair: Andrea Pickering*	
11:00	*Global emission patterns of the livestock sector and the different options for mitigation* **Theun Vellinga, Pierre Gerber**	11:00	*One year of global CH_4 Observations from GOSAT: Validation and model comparison* **R.J. Parker, H. Boesch, A.J. Cogan, P. I. Palmer, A. Fraser, L. Feng, T. Warneke, J. Messerschmidt, N. Deutscher and the TCCON Team**	11:00	*A Rumen Microbial Genomics Network approach for the development of a worldwide methane mitigation and rumen adaptation technologies* **Adrian L. Cookson, William J. Kelly, Sinead C. Leahy, Graeme T. Attwood, Victoria Hatton, Harry Clark**	11:00	*Understanding the relationships between GHG emissions from the agricultural sector and research efforts, preliminary analysis based on the Global Research Alliance stock-take data* **Marta Alfaro, Verónica Ciganda**	
11:20	*Summary of researches on green house gases in Vietnam* **La Van Kinh and Pham Huynh Ninh**	11:20	*Estimation of nitrous oxide from satellite infrared radiometer* **Fumie Kataoka and Yasushi Mitomi**	11:20	Working towards a common protocol for measuring N_2O fluxes using chamber methods **C.A.M. de Klein, D.R. Chadwick, M. Alfaro, T.J. Clough, P. Grace, M. Harvey, F.M. Kelliher, S.O. Petersen, P. Rochette, R.T. Venterea**	11:20	*Capability building opportunities within the Livestock Research Group of the Global Research Alliance* **Sergio Gomez-Rosales**	
11:40	*Use a chamber method to verify the effectiveness of a complete rumen modifier reducing the enteric methane on ruminants* **A. Thalib, Y. Widiawati, W. Puastuti and Firsoni**	11:40	*The influence of methane emission variability on tropospheric NOx recycling* **J. E. Williams, M. van Weele and P. F. J. van Velthoven**	11:40	*Climate Change and Beef Cattle Production in South American Countries: Quantification and Mitigation of Methane and Nitrous Oxide Emissions from Grazing Beef Cattle* **Laura Finster, Marta Alfaro, Edgar Cárdenas, Pedro Nuñez, Harry Clark, Verónica Ciganda**	11:40	*Mitigation strategies to reduce N_2O emissions following nitrogen inputs to a range of English soils and crops* **Misselbrook, T.M. Chadwick D.R., Chambers B.J., Williams J. Thorman R and Rollett, A.**	
12:00	*Reducing Emissions from Livestock Research Program* **Thomas M.Davison, Julian Hill and Joshua B. Francis**	12:00	*Photochemistry of Surface Ozone in an Urban Environment near the city of Kolkata, India* **Debreka Ghosh and Ujjaini Sarkar**	12:00	*Enteric CH_4 mitigation using animal selection, genetics and genomics* **R F Veerkamp, E Wall, Y. De Haas and G H Shackell**	12:00	*Ruminant enteric methanogenesis on forage-based diets* **O'Kiely, P., McGeough, E.J., Navarro-Villa, A., Purcell, P.J., O'Brien, M., Crosson, P., Moloney, A.P., Boland, T.M., Kenny, D.A., Foley, P.A., Hart, K.J., McEvoy, M., O'Donovan, M., Grogan, D. and Lopez, S.**	
12:20	*Air issues associated with animal agriculture* **Hegg Richard**			12:20	*Greenhouse gas mitigation in animal production: towards an interdisciplinary research agenda* **I.J.M. de Boer, C. Cederberg, S. Eady, S. Gollnow, T. Kristensen, M. Macleod, M. Meul, T. Nemecek, L.T. Phong, G. Thoma, H.M.G. van der Werf, A.G. Williams and M.A. Zonderland-Thomassen**	12:20	*Swiss diet types for cattle: How accurately are they reflected by the IPCC default values?J* **ohanna O. Zeitz, Carla R. Soliva and Michael Kreuzer**	**EXCURSION: Let's go plume hunting** ***(10:45-15:20)***
12:40	Lunch	12:40	Lunch	12:40	Lunch	12:40	Lunch	
	Session 1.8: Energy/Waste *Chair: Tinus Pulles*		Session 2.8: F-Gases *Chair: Sally Rand*		Session 3.8: Inverse Modeling (Regional) *Chair: Felix Vogel*			
13:30	*Methane emissions from gas engines driving Combined Heat and Power installations* **Michel de Zwart, Gerco van Dijk and Jacob Klimstra**	13:30	*Fast Track Emission Reduction Opportunities from High GWP GHGs* **Sally Rand, Kirsten Cappel, Deborah Ottinger**	13:30	*Regional non-CO_2 greenhouse gas fluxes inferred from atmospheric measurements in Southern Ontario, Canada* **F.R. Vogel, S. Hammer, E. Chan, M. Ishizawa, D. Chan, I. Levin and D.E.J. Worthy**			
14:00	*Potential of methane capture during palm oil milling for renewable energy* **Foong-Kheong Yew, Foo-Yuen Ng, Kalyana Sundram and Yusof Basiron**	14:00	*Replacement of the HCFC refrigerant R22 by another refrigerant* **Reinoud van der Auweraert**	14:00	*Understanding recent methane growth rate variability using a global Lagrangian transport model – first results* **Christina Schnadt Poberaj, Stephan Henne, and Dominik Brunner**			
14:20	*Field emissions of N_2O during biomass production may affect the sustainability of agro-biofuels* **Mette S. Carter, Henrik Hauggaard-Nielsen, Stefan Heiske, Sune T. Thomsen, Morten Jensen, Jens Ejbye Schmidt, Anders Johansen and Per Ambus**	14:20	*Monitoring Californian anthropogenic halocarbon emissions by inverse methods* **C. Yver, D. D. Lucas, P. Cameron-Smith, H. Graven, R. Keeling, and R. Weiss**	14:20	*Estimation of nitrous oxide emission in France using atmospheric nitrous oxide and radon-222 measurements* **Morgan Lopez, Martina Schmidt, Victor Kazan, Francois Truong, Camille Yver and Michel Ramonet**			
14:40	*Does black carbon abatement hamper CO_2 abatement?* **Terje Berntsen, Katsumasa Tanaka, Jan S. Fuglestvedt**	14:40	*Properties of mid-latitude cross-tropopause gradients of N_2O and SF_6 derived from the long term systematic observations by means of the CARIBIC passenger aircraft* **Tanja Schuck, Carl A.M. Brenninkmeijer, Kristie Boering, and Andreas Zahn**	14:40	*Regional methane sources observed from a motor glider and simulated with a Lagrangian particle dispersion model at kilometre scale resolution* **Dominik Brunner, Rebecca Hiller, Bruno Neininger, Thomas Künzle, Werner Eugster and Nina Buchmann**			
15:00	*The effects of blue energy on future emissions of greenhouse gases and other atmospheric pollutants in China* **Gao Xiu Xiu, Carolien Kroeze**	15:00	*Replacement of ozone-depleting methyl bromide (CH_3Br) with the radiatively active sulfuryl fluoride (SO_2F_2) for pest control* **Stefan Reimann, Dominik Brunner, Martin K. Vollmer, Stephan Henne**					
15:20	Break	15:20	Break	15:20	Break			

15:50 Plenary Closing Session

16:50 CLOSURE