

# FINAL PROGRAMME THURSDAY 12 MARCH 2009

## Oral Presentations

**Thursday, 12 March 2009**

**09:00 - 10:30**

**Plenary Hall -**

**Auditorium A**  
**Plenary Session**

*Chair: Mrs Ulla Tjørnæs, Minister for Development Cooperation, Denmark*

*Confirmed Speakers*

*Professor Diana Liverman, Oxford University*

*Professor John Schellnhuber, Potsdam Institute for Climate Impact Research & Visiting Professor at Oxford University*

*Professor Lord Nicholas Stern, London School of Economics & Political Science (LSE)*

**10:30 - 11:00**

**Coffee Break**

**11:00 - 12:30 S29B**

**Room D**

**Session 29 - Climate Change and Water Systems Part II**

*Chairs: Professor Maria Carmen Lemos, University of Michigan & Professor Torkil Jøneh Clausen, DHI*

- 11:00 - 11:05 Introduction by the Co-chairs
- 11:05 - 11:15 S29.08 Evaluating the benefits of adapting to changing flood hazard in Europe  
*Luc Feyen (Italy), R Dankers, K Bódis*
- 11:15 - 11:25 S29.09 Quantifying the effects of future climate change on groundwater and stream discharge in Denmark  
*Lieke van Roosmalen (Denmark), TO Sonnenborg*
- 11:25 - 11:35 S29.10 Future European drought regimes under mitigated and un-mitigated climate change  
*Rachel Warren (UK), R Yu, T Osborn, S de la Nava Santos*
- 11:35 - 11:45 S29.11 Climate change and the changing frequency of floods and droughts: scenario analysis of risk and adaptation in Europe  
*Joseph Alcamo (Germany)*
- 11:45 - 11:55 S29.12 Climate change scenarios of low-flow conditions and hydro power production in the upper Danube River basin  
*Markus Muerth (Germany), W Mauser, S Stoeber*
- 11:55 - 12:30 Discussion

**12:30 - 14:00**

**Lunch Break**

**14:00 - 15:30 S29C**

**Room D**

**Session 29 - Climate Change and Water Systems Part III**

- 14:00 - 14:05 Introduction by the Co-chairs
- 14:05 - 14:10 Dialogue on adaptation to Climate Change for land and water management – a contribution to the UNFCCC and COP 15 processes  
*Mr Ib Petersen, Secretary of State, Ministry of Foreign Affairs, Denmark*
- 14:10 - 14:20 S29.13 Technical knowledge and democratic decision-making: building adaptive capacity of fresh water systems in Brazil  
*Maria Carmen Lemos (USA), A Bell, N Engle, R Formiga-Johnsson, D Nelson*

- 14:20 - 14:30 S29.14 Securing water for food, livelihoods and ecosystems to face climate change: research needs  
*Vladimir Smakhtin (Sri Lanka), C de Fraiture, D Bossio, D Molden, C Hoanh, A Noble, M Giordano*
- 14:30 - 14:40 S29.15 The use and application of knowledge networks for water systems' management of climate change  
*David Feldman (USA), H Ingram*
- 14:40 - 14:50 S29.16 Comparison of the processes for developing climate change adaptation strategies for dealing with floods and droughts in the Netherlands, South Africa, China and Australia  
*Patrick Huntjens (Germany), C Pahl-Wostl, X Jun, J Camkin, N Kranz*
- 14:50 - 15:00 S29.17 Water bargaining & climate adaptation: asymmetric access to information affects equity  
*Alexander Pfaff (USA), MA Velez, K Broad, J Hercio, R Taddei*
- 15:00 - 15:10 S29.18 Approaches to identifying climate change adaptation strategies: a comparison of case studies in the UK and California  
*Suraje Dessai (UK), D Groves, R Lempert*
- 15:10 - 15:30 Discussion

### 11:00 - 12:30 S30A

Room E

#### Session 30 - Impact of Climate Change on Ecosystem Services Part I

*Chairs: Professor Harold Mooney, Stanford University & Dr Anne Larigauderie, Executive Director of DIVERSITAS*

- 11:00 - 11:15 S30.01 Biodiversity and ecosystem services: climate change impacts on species extinctions  
*Georgina Mace (UK), W Foden*
- 11:15 - 11:30 S30.02 The climate regulating services provided by ecosystems  
*Robert Scholes (South Africa), K Mennell*
- 11:30 - 11:45 S30.03 How biodiversity response to changing climate feeds on to ecosystem processes underlying ecosystem services  
*Sandra Lavorel (France), J-P Sarthou, W Thuiller*
- 11:45 - 12:00 S30.04 Coral reefs and rapid climate change: impacts, risks and implications for tropical societies  
*Ove Hoegh-Guldberg (Australia), T Hughes, K Anthony, K Caldeira, M Hatziolos, J Kleypas*
- 12:00 - 12:15 S30.05 Risks and adaptation options for rivers and streams  
*Margaret Palmer (USA)*
- 12:15 - 12:30 Discussion

### 12:30 - 14:00

#### Lunch Break

### 14:00 - 15:30 S30B

Room E

#### Session 30 - Impact of Climate Change on Ecosystem Services Part II

- 14:00 - 14:15 S30.06 Direct and indirect impacts of climatic change on species diversity and genetic diversity  
*Tetsukazu Yahara (Japan), M Donoghue, A Hendry*
- 14:15 - 14:30 S30.07 The impacts of climate change on ecosystem services: the case of disrupted disease regulation in South-Western Amazonia  
*Manuel Cesario (Brazil), R Rangel Cesario, M Andrade-Morraye*

- 14:30 - 14:45 S30.08 Climate, ecosystem services and social systems  
*Thomas Elmqvist (Sweden), C Perrings*
- 14:45 - 15:00 S30.09 Summary  
*Harold Mooney (USA)*
- 15:00 - 15:30 Discussion

**15:30 - 16:00 Coffee Break**

**11:00 - 12:45 S31A**

**Room P**

**Session 31 - Biodiversity: Enhancement of Resilience or Facilitating Transformation? Part I**

*Chairs: Dr Mark Stafford-Smith, Commonwealth Scientific and Industrial Research Organisation (CSIRO) & Professor Paul Leadley, Université Paris-Sud 11*

- 11:00 - 11:20 S31.01 From principles to practice: national approaches to managing biodiversity under climate change in Australia  
*Will Steffen (Australia), A Burbidge, L Cherry, B Edgar, L Hughes, R Kitching, D Lindenmayer, J Mummery, W Musgrave, M Stafford Smith, P Werner*
- 11:20 - 11:40 S31.02 Climate change adaptation and mitigation: synergisms, antagonisms and trade-offs for biodiversity  
*Pam Berry (UK), J Paterson, M Cabeza, A Dubuis, A Guisan, L Jäätelä, I Kühn, M Musche, J Piper, E Wilson*
- 11:40 - 12:00 S31.03 Redefining in situ and ex situ conservation of useful plant diversity in an era of climate change  
*Toby Hodgkin (Italy), L Snook, M Bellon, E Frison*
- 12:00 - 12:20 S31.04 Enhancing the adaptive capacity of biodiversity through implementation of the convention on biological diversity  
*Jaime Alexandra Webbe (Canada), A Djoghlaif*
- 12:20 - 12:45 Discussion including posters

**12:30 - 14:00 Lunch Break**

**14:00 - 15:30 S31B**

**Room P**

**Session 31 - Biodiversity: Enhancement of Resilience or Facilitating Transformation? Part II**

- 14:00 - 14:20 S31.05 Ensuring biodiversity security in the face of climate change  
*Sandy Andelman (USA), G Midgley, S Polasky, M Bode, J Busch, L Hannah, P Marquet, D Panitz, B Reyers, R Shaw, R Wise*
- 14:20 - 14:40 S31.06 Towards an adaptive management framework for climate change across species, sites and land/seascapes  
*David Hole (USA), W Turner, T Brooks, S Willis, B Huntley, L Hannah, S Butchart, P Donald*
- 14:40 - 15:00 S31.07 Developing a systematic regional approach for biodiversity conservation in South East Asia: a social-ecological perspective  
*Craig Miller (Australia), R Lasco, D Hilbert, L Tandug, M Dunlop, T Jovanovic*
- 15:00 - 15:20 S31.08 Global warming is eroding the resilience of kelp beds  
*Peter Staehr (Denmark), T Wernberg, M Thomsen, F Tuya, G Kendrick, B Toohey*
- 15:20 - 15:30 Discussion on session conclusions

**15:30 - 16:00 Coffee Break**

11:00 - 12:30 S32A

Room N

**Session 32 - Economic Costs of Adapting and not Adapting to Climate Change**

Part

I

*Chair: Dr Frank Jotzo, Australian National University*

- 11:00 - 11:15 S32.01 Effects of climate change in Europe: results from the PESETA study  
*Juan Carlos Ciscar (Spain), L Szabo, A Soria, A Iglesias, L Garrote, S Pye, L Horrocks, P Watkis, R Nicholls, R Roson, F Bosello, L Feyen, R Dankers, A Moreno, B Amelung, JM Labeaga, X Labandeira, OB Christensen, C Goodess, D van Regemorter*
- 11:15 - 11:30 S32.02 Economic consequences of Europe's changing climate – 2008 indicator-based assessment  
*Stephane Isoard (Denmark)*
- 11:30 - 11:45 S32.03 A roadmap to assess the economic cost of climate change with an application to hurricanes in the United States  
*Stephane Hallegatte (France)*
- 11:45 - 12:00 S32.04 Estimation of the economic costs of non adapting Japanese port infrastructure to a potential increase in tropical cyclone intensity  
*Miguel Esteban (Japan), C Webersick, T Shibayama*
- 12:00 - 12:15 S32.05 To adapt or not to adapt? Towards local costing of climate change impacts for decision making in adaptation  
*Alistair Hunt (UK), T Taylor*
- 12:15 - 12:30 Discussion

12:30 - 14:00

Lunch Break

14:00 - 15:30 S32B

Room N

**Session 32 - Economic Costs of Adapting and not Adapting to Climate Change Part II**

- 14:00 - 14:15 S32.06 Private adaptation of critical infrastructures is inefficient  
*Klaus Eisenack (Germany)*
- 14:15 - 14:30 S32.07 Regional total climate change costs for different burden sharing regimes and concentration targets  
*Andries Hof (The Netherlands), M den Elzen, D van Vuuren*
- 14:30 - 14:45 S32.08 Climate change and Ethiopia  
*Channing Arndt (Denmark), S Robinson, H Ahmed, D Willenbockel*
- 14:45 - 15:00 S32.09 How to go about costing and funding adaptation in developing countries?  
*Stephen Howes (Australia), F Jotzo*
- 15:00 - 15:30 Discussion

15:30 - 16:00

Coffee Break

11:00 - 12:30 S33A

Room O

**Session 33 - Adapting Urban Areas to Climate Change Part I**

*Chair: Professor Roberto Sanchez-Rodriguez, University of California at Riverside*

- 11:00 - 11:15 S33.01 Building urban resilience in the least developed countries  
*David Dodman (UK)*
- 11:15 - 11:30 S33.02 Adaptation in the urban environment: a story of process and outcome

*Darryn McEvoy (The Netherlands), K Lonsdale, J Rawlins, S Lindley, J Hinckel, M Falaleeva*

11:30 - 11:45 S33.03 Regional adaptation to climate change in the United States: are metropolitan planning organizations responding?

*Eric Lindquist (USA)*

11:45 - 12:00 S33.04 Joint-action for urban resilience: Linking national and local climate change strategies

*Cecilia Njenga (Kenya), R Tuts*

12:00 - 12:15 S33.05 City-scale integrated assessment of climate impacts, adaptation and mitigation

*Richard Dawson (UK), J Hall, S Barr, M Batty, A Bristow, S Carney, A Dagoumas, S Evans, A Ford, M Tight, H Watters, A Zanni*

12:15 - 12:30 Discussion

### 12:30 - 14:00 Lunch Break

### 14:00 - 15:30 S33B

### Room O

#### Session 33 - Adapting Urban Areas to Climate Change Part II

14:00 - 14:15 S33.06 The framing of an eco-city: towards cross-sectional urban policies of climate and urban development

*Anne Jensen (Denmark), AB Pedersen, S Svalgaard*

14:15 - 14:30 S33.07 Integrated planning strategies for climate change mitigation and adaptation in Europe's urbanising regions – towards a research agenda

*Hilda Blanco (USA), S Pauleit, G Jørgensen, TA Carstensen, J Handley*

14:30 - 14:45 S33.08 Rapidly growing cities and their resilience to climate change: a meta-analysis of global trends in urban land-use change and indicators of resilience and vulnerability

*Karen C Seto (USA), Fragkias, B Guneralp, M Reilly*

14:45 - 15:00 S33.09 Enhancing adaptation of poor urban dwellers to the effects of climate variability and change

*Shuaib Lwasa (Uganda), M Tenywa, GJ Majaliwa Mwanjalolo, H Sengendo, G Prain*

15:00 - 15:15 S33.10 The impacts of climate change on New York City's energy sector: vulnerabilities and potential adaptation strategies

*Stephen Hammer (USA), L Parshall*

15:15 - 15:30 S33.11 Adaptation in the transport sector: the constraining effect of actor-interdependencies

*Esther Hoffmann (Germany), D Reckien, K Eisenack*

### 11:00 - 12:30 S34A

### Room T

#### Session 34 - Adapting Human Land Use to Climate Change Part I

*Chair: Professor Anette Reenberg, University of Copenhagen*

11:00 - 11:15 S34.01 Urban land-use change and effects on regional climate: reduced precipitation from rapidly growing cities in China

*Karen C Seto (USA), RK Kaufmann, A Schneider, Z Liu, L Zhou, W Wang*

11:15 - 11:30 S34.02 Linking climate factors, agricultural development and adaptation strategies in the Sahel-Sudan zone of West Africa

*Ole Mertz (Denmark), C Mbow, JØ Nielsen, A Ka, D Diallo, P Cissé, B Barbier, DE Da, I Bouzou, WM Mato, D Dabi, V Ihemegbulem*

11:30 - 11:45 S34.03 Scenarios of agricultural land-use change in Africa under changing climate conditions

*Rüdiger Schaldach (Germany), J Alcamo, J Koch, D Lapola*

- 11:45 - 12:00 S34.04 Food production risks associated with land use change and climate change in East Africa  
*Nathan Moore (USA), G Alagarswamy, B Pijanowski, P Thornton, J Olson, B Lofgren, J Andresen, D Campbell*
- 12:00 - 12:15 S34.05 Climate change, land use policies, and adaptation in Alxa region, inner Mongolia, China  
*Henry Neufeldt (UK)*
- 12:15 - 12:30 S34.06 El Niño and land-use change – an attempt to simulate farmers’ reactions on climate variability and climate change in Indonesia  
*Joerg A Priess (Germany)*

**12:30 - 14:00 Lunch Break**

**14:00 - 15:30 S34B Room T**  
**Session 34 - Adapting Human Land Use to Climate Change Part II**

- 14:00 - 14:15 S34.07 Sustainable land use for adaptation to long term impacts of climate change in Himalaya  
*Prakash Chandra Tiwari (India)*
- 14:15 - 14:30 S34.08 Mapping and modelling ecosystem services in land systems  
*Richard Aspinall (UK), E Milne*
- 14:30 - 14:45 S34.09 The influence of land use change, CO2 fertilization and climate change on the European carbon budget  
*Jemma Gornall, (UK), J Hughes, A Wiltshire*
- 14:45 - 15:00 S34.10 Integration of spatially explicit climate-adaptation measures with a land use model  
*Eric Koomen (The Netherlands), P-D Nga*
- 15:00 - 15:15 S34.11 Adaptation to land use and global change thresholds  
*Dennis Ojima (USA), R Corell*
- 15:15 - 15:30 S34.12 Discussion

**15:30 - 16:00 Coffee Break**

**11:00 - 12:30 S36A Room Q**  
**Session 36 - Approaches to Measuring and Enhancing Adaptive Capacities Part I**

*Chairs: Professor Tom E Downing, Stockholm Environment Institute & Dr Anthony Patt, IIASA*

- 11:00 - 11:10 Introduction  
*Anthony Patt (Austria)*
- 11:10 - 11:13 S36.01 Institutional factors for adaptation to climate change in the Congo Basin forest of Cameroon  
*H Carolyn Peach Brown (Canada)*
- 11:13 - 11:16 S36.02 Social networks and rural adaptation to climate change: a Bangladesh case study  
*Fiona Rotberg (Sweden)*
- 11:16 - 11:19 S36.03 Drought and flood in Korhogo (Côte d'Ivoire : from their manifestation to population perception and coping strategies.  
*Brama Koné (Ivory Coast), NK Boko, E Kouakou, GR Koffi, PV Houenou, G Cissé*
- 11:19 - 11:22 S36.04 A participatory approach for defining response strategies to reduce risk and vulnerability from flooding in a changing climate  
*Valentina Giannini (Italy), C Giupponi, A Allan, A Rieu- Clarke, M Clark, C Hutton,*

- L Ceccato*
- 11:22 - 11:25 S36.05 Linking knowledge systems for rural livelihoods adaptation under uncertainty: drying and warming in Andean ecosystems  
*Corianne Valdivia (USA), JL Gilles, A Seth, J Thiebault, E Jiménez, M García, E Yucra*
- 11:25 - 11:28 S36.06 A resilience check – enhancing adaptive capacities in Sub-Sahara African agriculture  
*Chinwe Ifejika Speranza (Germany)*
- 11:28 - 11:31 S36.07 Vulnerability and adaptation to water scarcity in the European Alps  
*Stephane Isoard (Denmark), S McCallum, B Hain*
- 11:31 - 11:34 S36.08 Embedding climate change into evaluation frameworks  
*Lisa Horrocks (UK), T Mitchell, J Leavy, L Horrocks, M Greeley*
- 11:34 - 11:37 S36.09 Goal conflicts in adaptation to climate change: a Swedish report  
*Karin Edvardsson Björnberg (Sweden)*
- 11:37 - 11:40 S36.10 Measuring adaptation through building scientific capacity: a survey of investigators from the AIACC project  
*Hassan Virji (USA), J Padgham*
- 11:40 - 12:00 Rotating through room, look at visual props, network  
12:00 - 12:30 General Discussion

**12:30 - 14:00 Lunch Break**

**14:00 - 15:30 S36B**

**Room Q**

**Session 36 - Approaches to Measuring and Enhancing Adaptive Capacities Part II - Carousel, 3 parallel themes, groups rotating through them (3 rotations, 20 minutes each)**

**Theme 1. Targeting Adaptation in Processes of Social Learning**

- 14:00 - 14:10 Introduction  
*Tom E Downing (Sweden)*
- 14:10 - 14:12 S36.11 Measuring adaptation as a socio-institutional process in targeting climate adaptation  
*Ian Tellam (The Netherlands), J Gonzales, AR Subbiah, A Nishat, T Devissner, P O'Donoghue, K Lonsdale, S Bharwani, V Mathur, W Kojo Bonzu, L Gladin*
- 14:12 - 14:14 S36.12 Measuring adaptation: comparing possible outcomes or describing social learning?  
*Jochen Hinkel (Germany)*
- 14:14 - 14:16 S36.13 Towards indicators for adaptation: policy needs, possible approaches and practical solutions  
*Lisa Horrocks (UK), A Hunt*
- 14:16 - 14:20 Questions  
14:20 - 14:30 Listing principles

**Theme 2. Linking Poverty to Enhancing Adaptation**

- 14:10 - 14:13 S36.14 An assessment of channels to support climate adaptation by the poorest  
*Simon Anderson (UK), T Geoghegan, J Ayers*
- 14:13 - 14:20 Questions  
14:20 - 14:30 Listing principles

**Theme 3. Governance and Science-Policy Interfaces**

- 14:10 - 14:13 S36.15 Decision makers, scientists and modellers: collaborative approaches to enhancing adaptive capacity  
*David Stainforth (UK), F Zermoglio, Mark Tadross, T Downing*

- 14:13 - 14:16 S36.16 A state of the art of governance literature on adaptation to climate change: towards a research agenda  
*Kim Van Nieuwaal (The Netherlands), P Driessen, T Spit, K Termeer*
- 14:16 - 14:20 Questions
- 14:20 - 14:30 Listing principles
- 15:10 - 15:30 General Discussion

**15:30 - 16:00 Coffee Break**

**11:00 - 12:30 S37A**

**Room U**

**Session 37 - Adapting Future Agricultural Production to Climate Change Part I**

*Chairs: Professor John R Porter, University of Copenhagen & Professor Peter Gregory, Director of Scottish Crop Research Institute (SCRI)*

- 11:00 - 11:30 S37.01 Adapting future agricultural production to climate change: a survey of the challenge to increase food security and reduce risk of hunger  
*Martin Parry (UK)*
- 11:30 - 11:45 S37.02 Importance of local institutions and downwards accountability of local government for mitigating adverse effects of global climate change for poor farmers in South-Eastern Africa  
*Esbern Friis-Hansen (Denmark), O Stage, C Aben*
- 11:45 - 12:00 S37.03 Modeling farmers' adaptation to climate change - integrating a biophysical and an economic model  
*Robert Finger (Switzerland)*
- 12:00 - 12:15 S37.04 Future cereal production in China: the interaction of climate change, water availability and socio-economic scenarios  
*Declan Conway (UK), W Xiong, J Jinhe, Y Li, L Erda, Y Xu, H Ju, Y Li*
- 12:15 - 12:30 Discussion

**12:30 - 14:00 Lunch Break**

**14:00 - 15:30 S37B**

**Room U**

**Session 37 - Adapting Future Agricultural Production to Climate Change Part II**

- 14:00 - 14:15 S37.05 What can we learn from historic adaptations to extreme events in agriculture?  
*Anita Wreford (UK), N Adger*
- 14:15 - 14:30 S37.06 Managing future agricultural production in a variable and changing climate  
*Steven Crimp (Australia), M Howden, A Laing, D Gaydon, A Gartmann, P Brown*
- 14:30 - 14:45 S37.07 Anticipating and responding to biological complexity in the effects of climate change on agriculture  
*Karen Garrett (USA), G Forbes, S Pande, S Savary, A Sparks, C Valdivia, C Vera Cruz, L Willocquet*
- 14:45 - 15:00 S37.08 Climate change and alternative cropping patterns in lower Seyhan irrigation project: a regional simulation analysis with MRI-CGCM and CCSR-CGCM  
*Chieko Umetsu (Japan), K Palanisami, Z Coşkun, S Donma, T Nagano, Y Fujihara, K Tanaka*
- 15:00 - 15:30 Discussion

**15:30 - 16:00**      **Coffee Break**

**11:00 -12:30**   **S38B** **Room V**

**Session 38 - Adapting Forests to Climate Change Part II**

*Chair: Professor Niels Elers Koch, University of Copenhagen*

- 11:00 - 11:15   S38.07   A review of measures to adapt to climate change in forests of EU countries  
*Marcus Lindner (Finland), M Kolström*
- 11:15 - 11:30   S38.08   A review of measures to adapt to climate change in forests in Southeast Asia  
*Heru Santoso (Indonesia)*
- 11:30 - 11:45   S38.09   Locating climatically stable forest in West and Central Africa, protecting the nodes in the web of life  
*Miguel Leal (USA)*
- 11:45 - 12:00   S38.10   Adaptation of tropical pine plantation forestry to climate change  
*Christoph Leibling (Colombia), M van Zooneveld, A Jarvis*
- 12:00 - 12:15   S38.11   Adaptation, non-timber forest products and rural livelihood: an empirical study in West Bengal, India  
*Jyotish Prakash Basu (India)*
- 12:15 - 12:30   S38.12   Adaptive forest management in Germany - strategies, options and risks  
*Andreas Bolte (Germany), P Spathelf, C Ammer*
- 12:30 - 12:45                      Discussion

**12:30 - 14:00**      **Lunch Break**

**14:00 - 15:30**   **S38C** **Room V**

**Session 38 - Adapting Forests to Climate Change Part III**

- 14:00 - 14:15   S38.13   Adaptation of forests to climate change/ socio-economic considerations  
*Balgis Osman-Elasha (Sudan)*
- 14:15 - 14:30   S38.14   Policy options for the adaptation of forests to impacts of climate change  
*Jeremy Rayner (Canada), P Glück*
- 14:30 - 14:45   S38.15   Climate change and forest ecosystems in Belarus: integration of exposure and institutional adaptability  
*Viktar Kireyeu (Hungary), A Shkaruba*
- 14:45 - 15:00   S38.16   Changing policies to adapt forests to climate change  
*Rashid Sheikh (Bangladesh)*
- 15:00 - 15:15   S38.17   Adapting research direction on wood mobilization to meet the challenges of climate change  
*Piotr Paschalis-Jakubowicz (Poland)*
- 15:15 - 15:30                      Discussion

**15:30 - 16:00**      **Coffee Break**

**11:00 -12:30**   **S39A** **Room G**

**Session 39 - Climate Tools and Information to Support Adaptation Part I**

*Chair: Dr Jill Jäger, Sustainable Europe Research Institute (SERI)*

- 11:00 - 11:15   S39.01   The role of shared mental models for adaptation policies to climate change  
*Ilona Banaszak (Slovak Republic), P Matczak, A Chorynski*
- 11:15 - 11:30   S39.02   Frame-based guide to situated decision-making on climate change  
*Joop de Boer (The Netherlands)*

- 11:30 - 11:45 S39.03 The climate learning ladder. A dialogic tool to support Integrated Climate Governance (ICG)  
*J David Tabara (Spain), A Serra*
- 11:45 - 12:00 S39.04 Knowledge for adaptation: the ADAM digital adaptation compendium  
*Jochen Hinkel (Germany), ME Hofmann, K Lonsdale, P Matczak, D Mcevoy, M Wrobel*
- 12:00 - 12:15 S39.05 Participatory scenario development for integrated sustainability assessment  
*Lisa Bohunovsky (Austria), I Omann*
- 12:15 - 12:30 S39.06 Aiding multi-level decision-making processes for climate change mitigation and adaptation  
*Katherine Anne Daniell (France), MA Máñez Costa, N Ferrand, M Vassileva, F Aix, P Coad, IS Ribarova*

**12:30 - 14:00 Lunch Break**

**14:00 - 15:30 S39B**

**Room G**

**Session 39 - Climate Tools and Information to Support Adaptation Part II**

- 14:00 - 14:15 S39.07 An integrated approach to support climate policy formulation and evaluation  
*Andrea Marcello Bassi (USA)*
- 14:15 - 14:30 S39.08 Climate change adaptation with multiple-perspective based games  
*Pieter Valkering (The Netherlands)*
- 14:30 - 14:45 S39.09 Providing scientific basis for climate change adaptation strategies in the Andes region  
*Nadine Salzmann (Switzerland), P Calanca, A Diaz, C Huggel, T Jonas, C Jurt, T Konzelmann, P Lagos, M Rohrer, D Sietz, W Silverio, M Zappa*
- 14:45 - 15:00 S39.10 "One size fits all?" Can the IPCC serve as blueprint for scientific advice on adaptation to climate change?  
*Silke Beck (Germany), C Goerg*
- 15:00 - 15:15 S39.11 From knowledge to action? Either via science as usual or 'just do it?'  
*Peter Moll (Germany)*
- 15:15 - 15:30 Discussion

**15:30 - 16:00 Coffee Break**

**11:00 - 12:30 S41A**

**Room I**

**Session 41 - Adaptation To Climate Change In Least Developed Countries - Challenges, Experiences and Ways Forward Part I**

*Chair: Head of Centre John Christensen, UNEP Risø Centre on Energy, Climate and Sustainable Development*

- 11:00 - 11:15 **Keynote Lecture**  
*Saleemul Huq (IIED)*
- 11:15 - 11:30 S41.01 Mainstreaming climate change in the implementation of poverty reduction strategies  
*Gonzalo Griebenow (USA)*
- 11:30 - 11:45 S41.02 Financing climate change adaptation in small island developing states  
*Kanako Morita (Japan)*
- 11:45 - 12:00 S41.03 Understanding adaptation-development links from practice  
*Muyeye Chambwera (UK)*
- 12:00 - 12:15 S41.04 Adaptation to climate change: a case study on Bangladesh

- 12:15 - 12:30 S41.05 *Saila Parveen (Bangladesh), I Faisal*  
Empirically based analysis of household-level adaptive capacity in the Central Himalaya  
*Carsten Smith Olsen (Denmark), HO Larsen, JF Lund, H Meilby, ØJ Nielsen, S Rayamajhi, N Strange*

**12:30 - 14:00 Lunch Break**

**14:00 - 15:30 S41B**

**Room I**

**Session 41 - Adaptation To Climate Change In Least Developed Countries - Challenges, Experiences and Ways Forward Part II**

- 14:00 - 14:15 S41.06 Views on rural vulnerability following hurricane Mitch in Nicaragua  
*Kristian Thor Jakobsen (Denmark)*
- 14:15 - 14:30 S41.07 Linkages between climate change, health, water and food security: what are the issues for Southern Africa?  
*Moses Chimbari (Uganda), D Mazvimavi, G Manase, P Furu, M Feilberg, JR Jensen, N Ørnbjerg, AM Sørensen, PV Madsen*
- 14:30 - 14:45 S41.08 Can groundwater enable communities in sub-Saharan Africa to adapt to predicted impacts of climate change on freshwater resources?  
*Richard Taylor (UK), C Tindimugaya*
- 14:45 - 15:00 S41.09 Linking climate trends to coping strategies in northern Tanzania  
*Sara Trærup (Denmark), O Mertz*
- 15:00 - 15:15 S41.10 Does climate change control land degradation in the Sahel?  
*Rasmus Fensholt (Denmark), K Rasmussen*
- 15:15 - 15:30 Discussion

**15:30 - 16:00 Coffee Break**

**11:00 - 12:30 S42A**

**Room J**

**Session 42 - Adaptation and Climate Risk Insurance Part I**

*Chair: Dr Koko Warner, Munich Climate Insurance Initiative (MCII)*

- 11:00 - 11:05 Introductory remarks, session objectives  
*Koko Warner (USA)*
- 11:05 - 11:15 S42.01 The insurability of the impacts of climate change  
*Nick Silver (UK), Andrew Dlugolecki (UK)*
- 11:20 - 11:30 S42.02 Adapting to climate change to maintain the insurability of people and property against extreme weather and sea level rise  
*Nicola Ranger (UK), C Herweijer, R Ward, R Muir-Wood*
- 11:35 - 11:45 S42.03 Risk prevention and flood insurance in the UK: ensuring availability in the face of rising climate risks  
*Swenja Surminski (UK)*
- 11:45 - 12:00 Discussion
- 12:00 - 12:15 S42.04 Climate change and climate insurance. The case of Malawi  
*Reinhard Mechler (Austria), S Hochrainer, G Pflug*
- 12:15 - 12:25 S42.05 Climate risk insurance: opportunities for poverty reduction & adaptation  
*Molly Hellmuth (USA), H Bhojwani, D Osgood, J Hansen, A Moorhead*
- 12:25 - 12:30 Discussion

**12:30 - 14:00 Lunch Break**

**14:00 - 15:30 S42B**

**Room J**

**Session 42 - Adaptation and Climate Risk Insurance Part II**

- 14:00 - 14:05 Welcome back, second session objectives  
*Koko Warner (USA)*
- 14:05 - 14:15 S42.06 Climate insurance as part of a post-2012 adaptation strategy  
*Koko Warner (USA)*
- 14:20 - 14:30 S42.07 Insurance Mechanisms to help Developing Countries respond to climate change  
*Joanne Linnerooth-Bayer (Austria), C Bals, R Mechler*
- 14:35 - 14:45 Towards a risk finance facility for development: The UNDP initiative  
*Pablo Suarez (The Netherlands)*
- 14:50 - 15:30 Discussion

**15:30 - 16:00**

**Coffee Break**

**11:00 - 12:30 S43A**

**Room L**

**Session 43 - Integrating Climate Change into Global Sustainability Part I**

*Chair: Professor Kazuhiko Takeuchi, University of Tokyo*

- 11:00 - 11:05 Introduction  
*Kazuhiko Takeuchi (Japan)*
- 11:05 - 11:30 **Keynote Lecture:** Towards global sustainability Structuring of actions through networks of networks and knowledge innovation  
*Hiroshi Komiyama, President, The University of Tokyo (Japan)*
- 11:30 - 11:40 S43.01 Social-ecological resilience and transformation in the face of global change  
*Carl Folke (Sweden)*
- 11:40 - 11:50 S43.02 Millennium ecosystem assessment: balancing trade offs in a holistic manner  
*AH Zakri (Japan)*
- 11:50 - 12:00 S43.03 The climate of disciplinary tunnel vision  
*Petter Naess (Denmark)*
- 12:00 - 12:10 S43.04 Agglomeration economies and spatial sustainability  
*Henri Waisman (France), F Grazi, JCJM van den Bergh*
- 12:10 - 12:20 S43.05 Knowledge structuring and an exploration system for global sustainability and its application to the biofuel issue  
*Riichiro Mizoguchi (Japan), O Saito, K Kozaki, T Hirota,*
- 12:20 - 12:30 Discussion

**12:30 - 14:00**

**Lunch Break**

**14:00 - 15:30 S43B**

**Room L**

**Session 43 - Integrating Climate Change into Global Sustainability Part II**

- 14:00 - 14:10 S43.06 Development of long-term vision of global sustainable society from viewpoints of low-carbon, material cycle and ecosystem.  
*Toshihiko Masui (Japan), T Inoue, K Takeuchi, K Hanaki, S Arai, G Hibino, S Matsui, M Yoshikawa, Y Motoki*
- 14:10 - 14:20 S43.07 Strategies for reducing carbon emissions from disturbed tropical peat  
*Mitsuru Osaki (Japan), T Iwakuma, H Takahashi, T Hirano, T Kohyama, N Tanaka, T Honnma, H Sekine, A Braimoh, SH Limin, B Setiadi*

- 14:20 - 14:30 S43.08 Consumer behaviour and climate change: consumers' strategies to mitigating climate change impacts in Mauritius.  
*Lutchmeeduth Bullywon (Mauritius), A Sookun*
- 14:30 - 14:40 S43.09 Protecting the Arctic marine environment in a changing climate – options for transatlantic and international governance  
*Katharina Umpfenbach (Germany), S Cavalieri*
- 14:40 - 14:50 S43.10 Traditional knowledge for developing holistic adaptation and mitigation measures  
*Sam Johnston (Japan), V Tauli-Corpuz*
- 14:50 - 15:00 S43.11 Economic impacts of rising demand of vegetable oil for bio-diesel and food on sustainability of developing countries  
*Hirotaka Matsuda (Japan), N Suzuki*
- 15:00 - 15:10 S43.12 Corporate sustainable-developmental responsibility (CSdR): corporate addressing climate change within a sustainability framework  
*Harn Wei Kua (Singapore)*
- 15:10 - 15:30 General Discussion

**15:30 - 16:00 Coffee Break**

**11:00 - 12:30 S51A**

**Room K1**

**Session 51 -Managing Food in a Climate Constrained World Part I**

*Chairs: Professor Pam Matson, Stanford University*

- 11:00 - 11:20 S51.01 Food security in the face of climate change, population growth and resource constraints  
*Islam Faisal (Bangladesh), S Parveen*
- 11:20 - 11:40 S51.02 Simulating the interactions between climate change, food, and water in future Africa  
*Joseph Alcamo (Germany)*
- 11:40 - 12:00 S51.03 Technological change in agriculture and the trade-offs between land expansion, intensification and international trade  
*Hermann Lotze-Campen (Germany), A Popp*
- 12:00 - 12:20 S51.04 Global food flows and urban food security: case studies from three IARU cities  
*Lisa Deutsch (Sweden), D Dumaresq, R Dyball, H Matsuda, J Porter, A Reenberg, K Takeuchi*
- 12:20 - 12:30 Discussion

**12:30 - 14:00 Lunch Break**

**14:00 - 15:30 S51B**

**Room K1**

**Session 51 -Managing Food in a Climate Constrained World Part II**

- 14:00 - 14:20 S51.05 Predicting the climate impacts of liquid biofuels through project-level and policy level case studies: contrasting approaches in Ethiopia and the Philippines  
*Ian Monroe (USA)*
- 14:20 - 14:40 S51.06 Climate change impacts on African agriculture: uncertainties and implications for adaptation  
*Marshall Burke (USA)*
- 14:40 - 15:30 Discussion

**15:30 - 16:00 Coffee Break**

**11:00 - 12:30 S52A**

**Room R**

**Session 52 - Economic Costs of not Mitigating Climate Change Part I**

*Chair: Kevin Anderson; Research Director; Tyndall Centre for Climate Change Research; University of Manchester and University of East Anglia*

- 11:00 - 11:20 S52.01 Climate change & carbon budgets: implications for international transport and emissions trading  
*Alice Bows (UK), K Anderson*
- 11:20 - 11:40 S52.02 The economic impact of future increase in tropical cyclones in Japan  
*Christian Webersik (Japan), M Esteban, T Shibayama*
- 11:40 - 12:00 S52.03 Loss of worker productivity due to projected climate change  
*Tord Kjellstrom (Australia), B Lemke*
- 12:00 - 12:20 S52.04 Climate change adaptation scenario for the European electricity sector  
*Ulrich Reiter (Switzerland), H Turton*
- 12:20 - 12:30 Discussion

**12:30 - 14:00**

**Lunch Break**

**14:00 - 15:30 S52B**

**Room R**

**Session 52 - Economic Costs of not Mitigating Climate Change Part II**

- 14:00 - 14:20 S52.05 Quantifying the costs of no-action: high-resolution impacts analysis for the United States  
*Noah Diffenbaugh (USA)*
- 14:20 - 14:40 S52.06 An adaptability limit for large warmings--are we accounting for it?  
*Steven Sherwood (USA), M Huber*
- 14:40 - 15:00 S52.07 Representing the impacts of climate change in a US economic model  
*Martin Ross (USA), B DeAngelo, R Beach, M Gallaher, S Pattanayak, C Poulos, S Waldhoff*
- 15:00 - 15:20 S52.08 The economic cost of climate change – loss of value of European forestland as a consequence of not mitigating climate change  
*Marc Hanewinkel (Germany), NE Zimmermann, DA Cullmann*
- 15:20 - 15:30 Discussion

**15:30 - 16:00**

**Coffee Break**

**11:00 - 12:30 S53A**

**Room X**

**Session 53 - Role of Media in Contributing in Combating Climate Change Part I**

*Chair: Dr Max Boykoff, University of Oxford*

- 11:00 - 11:05 Introduction  
*Max Boykoff (UK)*
- 11:05 - 11:15 S53.01 Competition and getting past the boss  
*Paul Ray Beck Brown (UK)*
- 11:15 - 11:25 S53.02 The cultural politics of climate change: focusing on mass media  
*Maxwell Boykoff (UK)*
- 11:25 - 11:35 S53.03 Communicating about global climate change...persuasively  
*Sharon Dunwoody (USA)*
- 11:35 - 11:45 S53.04 Web 2.0: friend or foe?  
*Olive Heffernan (UK)*

- 11:45 - 11:55 S53.05 The evolving role of Southeast Asian media in climate change  
*Imelda Abano (Philippines)*
- 11:55 - 12:05 S53.06 Challenges in climate change reporting, experience from mainland Southeast Asian media  
*Piyaporn Wongruang (Thailand)*
- 12:05 - 12:15 S53.07 Transforming the role of the media in combating climate change in Africa  
*Patrick Luganda (Uganda)*
- 12:15 - 12:30 Discussion

**12:30 - 14:00 Lunch Break**

**14:00 - 15:30 S53B**

**Room X**

**Session 53 - Role of Media in Contributing in Combating Climate Change Part II**

- 14:00 - 14:10 S53.08 Media coverage of climate change in the US and Brazil: understanding convergences and divergences in light of socio-political contexts and identifying policy implications  
*Myanna Lahsen (Brazil)*
- 14:10 - 14:20 S53.09 The problem with supply-side science  
*Naomi Oreskes (USA)*
- 14:20 - 14:30 S53.10 Why climate-change skepticism is so prevalent in the USA: the success of conservative think tanks in promoting skepticism via the media  
*Riley Dunlap (USA)*
- 14:30 - 14:40 S53.11 The effects of journalistic imbalance on scientific imbalance: special interests, scientific consensus and global climate disruption  
*William Freudenburg (USA)*
- 14:40 - 14:50 S53.12 European media discourses and the governance of climate change  
*Anabela Carvalho (Portugal)*
- 14:50 - 15:00 S53.13 Reducing greenhouse gases: the media challenge  
*James Kanter (Belgium)*
- 15:00 - 15:10 S53.14 Exploring the media framing of carbon capture and storage and its influence on public perceptions  
*Sarah Mander (UK), R Wood, C Gough*
- 15:10 - 15:30 Discussion

**15:30 - 16:00 Coffee Break**

**11:00 - 12:30 S54A**

**Room S**

**Session 54 - The Role of non Nation State Actors (Cities, NGOs, Business) in Combating Climate Change Part I**

*Chair: Dr Aled Jones, Deputy Director, University of Cambridge Programme for Industry*

- 11:00 - 11:20 S54.01 Participation of community-based stakeholders in the CDM project cycle in China  
*Joakim Nordqvist (Sweden), E Mühlhäuser*
- 11:20 - 11:40 S54.02 Volunteers as the entry point to climate change adaptation at community level  
*Andreas G Koestler (Norway), A Torbjørnsen, A-M Austenå*
- 11:40 - 12:00 S54.03 The limits of participatory democracy for the fight against climate change  
*Stéphane La Branche (France)*
- 12:00 - 12:30 Discussion

**12:30 - 14:00 Lunch Break**

**14:00 - 15:30 S54B**

**Room S**

**Session 54 - The Role of non Nation State Actors  
(Cities, NGOs, Business) in Combating Climate Change Part II**

- 14:00 - 14:20 S54.04 Paving the way for a new development path: an analysis of transnational corporations and carbon lock-in  
*Vanessa Pena (UK)*
- 14:20 - 14:40 S54.05 Collaborative emission reduction in regional Australia: Maine's power  
*Peta Ashworth (Australia), D Bridgfoot, J Gardner, S Rooney*
- 14:40 - 15:00 S54.06 Transnational climate governance: assessing the performance of non-state driven mitigation schemes  
*Philipp Pattberg (The Netherlands)*
- 15:00 - 15:30 Discussion

**15:30 - 16:00**

**Coffee Break**

**11:00 - 12:30 S55A**

**Room H**

**Session 55 - Resources in a Changing Climate: Building  
Collaboration and Avoiding Conflict Part I**

*Chairs: Professor Johan Rockström, University of Stockholm and Executive Director at Stockholm Environment Institute & Dr Tariq Banuri, Senior Researcher at Stockholm Environment Institute*

- 11:00 - 11:20 S55.01 A game theoretic approach to climate negotiation  
*Ekko van Ireland (The Netherlands)*
- 11:20 - 11:40 S55.02 Stringency of climate targets  
*Paul Baer (USA)*
- 11:40 - 12:00 S55.03 Integrated development and climate network: climate and development  
*Munir Akram (USA)*
- 12:00 - 12:30 Discussion

**12:30 - 14:00**

**Lunch Break**

**14:00 - 15:30 S55B**

**Room H**

**Session 55 - Resources in a Changing Climate: Building  
Collaboration and Avoiding Conflict Part II**

- 14:00 - 14:20 S55.04 Civic exchange: menu or recipe  
*Christine Loh (PR China)*
- 14:20 - 14:40 S55.05 Government of Korea: menu or recipe  
*Rae Kwon Chung (South Korea)*
- 14:40 - 15:00 S55.06 UN: policy timing  
*Tariq Banuri (Sweden)*
- 15:00 - 15:30 Discussion

**15:30 - 16:00**

**Coffee Break**

**11:00 - 12:30 S56A**

**Room Y**

**Session 56 - Human Migration - Geopolitical Conflicts Part I**

*Chair: Professor Ole Wæver, University of Copenhagen*

- 11:00 - 11:15 S56.01 Climate change impacts on migration: conflict and cooperation in the Mediterranean

- 11:15 - 11:30 S56.02 *Hans Günter Brauch (Germany)*  
Social vulnerability and geopolitical conflicts due to socio-environmental migration in Mexico
- 11:30 - 11:45 S56.03 *Ursula Oswald Spring (Mexico)*  
Migration: climate adaptation or failure to adapt? Findings from a global comparative field study
- 11:45 - 12:30 *Koko Warner (USA)*  
Discussion

**12:30 - 14:00 Lunch Break**

**11:00 - 12:30 S56b**

**Room Y**

**Session 56 - Human Migration - Geopolitical Conflicts Part I**

- 14:00 - 14:15 S56.04 IPCC and the climate-conflict nexus  
*Nils Petter Gleditsch (Norway), R Nordås*
- 14:15 - 14:30 S56.05 Climate change, urban vulnerability and disasters: a preliminary analysis of selected Nigerian cities  
*Felix Olorunfemi (Nigeria), A Gbadegesin, U Raheem*
- 14:30 - 14:45 S56.06 The meaning and function of European discourses on climate security  
*Julia Trombetta (The Netherlands)*
- 14:45 - 15:00 S56.07 Climate-induced instabilities and conflicts  
*Jürgen Scheffran (USA)*
- 15:00 - 15:30 Discussion

**15:30 - 16:00 Coffee Break**

**11:00 - 12:30 S57B**

**Room F**

**Session 57 - Cultures, Values & World Perspectives as Factors in Responding to Climate Change Part II**

*Chairs: Professor Karen O'Brien, University of Oslo & Professor Thomas Heyd, University of Victoria*

- 11:00 - 11:05 Introduction
- 11:05 - 11:15 S57.07 Indigenous peoples of the Sierra Nevada de Santa Marta-Colombia: local ways of thinking climate change  
*Astrid Ulloa (Colombia)*
- 11:15 - 11:25 S57.08 The sentinel key role of indigenous peoples in the assessment of climate change effects on tropical forests  
*Edmond Dounias (France)*
- 11:25 - 11:35 S57.09 Gone the bull of winter: grappling with the cultural implications of and anthropology's role(s) in global climate change  
*Susan Crate (USA)*
- 11:35 - 11:45 S57.10 Bad weather or stricter standards - sources of knowledge in climate adaptation?  
*Sunniva Tøsse (Norway)*
- 11:45 - 12:10 Discussion
- 12:10 - 12:36 S57.11 Climate change: the ethical dimension (Video Presentation)  
*Robin Attfield (UK)*

**12:30 - 14:00 Lunch Break**

**14:00 - 15:30 S57C**

**Room F**

**Session 57 - Cultures, Values & World Perspectives as Factors**

## in Responding to Climate Change Part II

- 14:00 - 14:05 Introduction
- 14:05 - 14:15 S57.12 Procrastination in climate policy: metaphysics vs. decisions in the wild  
*Bertrand G Guillaume (France)*
- 14:15 - 14:25 S57.13 Understanding the role of culture in determining risk from natural hazards  
*Lisa Schipper (Thailand), J Dekens*
- 14:25 - 14:35 S57.14 Climate change and the re-invigoration of the public sphere: issues, methodologies and the way(s) forward  
*Kersty Hobson (Australia)*
- 14:35 - 14:45 S57.15 Ignorance and vulnerability: beliefs about stability and the occurrence of 'radical surprise'  
*Christian Kuhlicke (Germany)*
- 14:45 - 14:55 S57.16 Warming up the climate change debate: a challenge to policy based on adaptation  
*Andrea Nightingale (UK)*
- 14:55 - 15:05 S57.17 Human agency and the anatomy of climate change adaptation strategies in the Arctic  
*Frank Sejersen (Denmark)*
- 15:05 - 15:30 Discussion

**15:30 - 15:50 Coffee Break**

**15:50 - 17:10**

**Plenary Hall -**

### **Auditorium A Closing Session**

*Chair: Professor Katherine Richardson, University of Copenhagen*

*Confirmed Speakers*

*Professor Katherine Richardson, University of Copenhagen*

*Professor Dan Kammen, University of California at Berkeley*

*Professor Lord Nicholas Stern, London School of Economics & Political Science (LSE)*

*Professor Jane Lubchenco, Nominated to be Head of National Oceanic and Atmospheric Administration, USA*

*Mr Anders Fogh Rasmussen, Prime Minister, Denmark*

**17:10 - 17:30**

**Closing Ceremony with Entertainment by Rasmus Lyberth & Band**

## Poster Sessions

**Thursday, 12 March 2009**

**11:00 - 14:30 P01**

**Hall C**

### **Session 01 - Cryosphere, Instabilities, Sea Level Rise**

- 11:00 - 11:10 P01.01 Impact of present warming on Greenland Ice Sheet model  
*Gudfinna Adalgeirsdottir (Denmark), M Stendel, JH Christensen, E Bueller, M Drews*
- 11:10 - 11:20 P01.02 Supraglacial lake volumes on the Jakobshavn isbrae  
*John Adler (USA), K Steffen*

- 11:20 - 11:30 P01.03 The Moulin explorer: a novel instrument to study Greenland ice sheet melt-water flow  
*Alberto Behar (USA), H Wang, A Elliot, S O'Hern, C Lutz, S Martin, K Steffen, D McGrath, T Phillips*
- 11:30 - 11:40 P01.04 Nonstationarity in cryosphere-atmosphere coupling and its relationship to variability and change of North Atlantic Oscillation  
*Roxana Bojariu (Romania), R Garcia Herrera, M Caian, T Zhang, O Frauenfeld*
- 11:40 - 11:50 P01.05 Modelling the spatial distribution of moulins near Jakobshavn, Greenland  
*William Colgan (USA), K Steffen*
- 11:50 - 12:00 P01.06 Significant Holocene thinning of the Greenland ice sheet  
*Bo Vinther (Denmark), SL Buchardt, HB Clausen, D Dahl-Jensen, SJ Johnsen, DA Fischer, RM Koerner, D Raynaud, V Lipenkov, KK Andersen, T Blunier, SO Rasmussen*
- 12:00 - 12:10 P01.07 Climatic control on glacier mass balance and runoff, Mittivakkat Glacier catchment, Ammassalik Island, SE Greenland  
*Bent Hashol (Denmark), SH Mernild, NT Knudsen*
- 12:10 - 12:20 P01.08 Analysis delta-13C in CO<sub>2</sub> at Copenhagen University: results towards a first CO<sub>2</sub> record from Greenland  
*Theo Manuel Jenk (Denmark), T Blunier, D Dahl-Jensen*
- 12:20 - 12:30 P01.09 Recent global sea level acceleration started over 200 years ago?  
*Svetlana Jevrejeva (UK), J Moore, A Grinsted, P Woodworth*
- 12:30 - 12:40 P01.10 Constraining the southern Greenland ice sheet since the last glacial maximum until the present from sea-level observations and glacial-isostatic adjustment models  
*Charlotte Jönsson Sparrenbom (Sweden), K Lambeck, D Fabel, K Fleming, A Purcell*
- 12:40 - 12:50 P01.11 Constraining future climate change using ice core data  
*Jean Jouzel (France), V Masson-Delmotte, D Raynaud*
- 12:50 - 13:00 P01.12 Western-Siberian peatlands as indicator and regulator of climatic changes  
*Sergey Kirpotin (Russian Federation), B Dupre, O Pokrovsky, A Kouraev, A Beresin, V Bazanov, Y Polishchuk, I Volkova, N Mironycheva-Tokoreva, J Viers, M Kolmakova*
- 13:00 - 13:10 P01.13 Ice flow and mass balance along the ridge of the Greenland ice sheet between NGRIP and NEEM  
*Lars Berg Larsen (Denmark), CS Hvidberg*
- 13:10 - 13:20 P01.14 Analysis of long-term hydro-meteorological data of Baker River Basin and the mass balance of NEF glacier, Patagonia  
*Paulina Lopez (Chile), G Casassa*
- 13:20 - 13:30 P01.15 Impact of warm events during cold seasons on the hydrological response of a polar glacier system  
*Christelle Marlin (France), M Griselin, E Bernard, E Delangle, D Laffly, J-M Friedt*
- 13:30 - 13:40 P01.16 Sediment plumes in Sondre Stromfjord, Greenland as a proxy for run-off from the Greenland ice sheet  
*Daniel McGrath (USA), K Steffen, I Overeem*
- 13:40 - 13:50 P01.17 Greenland Ice Sheet melt extent and surface mass-balance modeling, 1950–2080  
*Sebastian H Mernild (USA)*
- 13:50 - 14:00 P01.18 Increased Greenland melt extent 1995–2007  
*Sebastian H Mernild (USA)*
- 14:00 - 14:10 P01.19 Melt water influence on englacial temperature distribution  
*Thomas Phillips (USA), H Rajaram, K Steffen*
- 14:10 - 14:20 P01.20 Statistical analysis of global sea level using nonstationary methods: New prospects for projection?  
*Torben Schmith (Denmark), S Johansen, P Thejll*

14:20 - 14:30 P01.21 Nature and history of the cenozoic polar ice covers  
**Jørn Thiede** (Denmark)

11:00 - 12:30 P02

Hall C

**Session 02 - Global/Regional Climate State in 2030**

- 11:00 - 11:10 P02.01 European temperature variability and heatwaves in a changing climate: where do we stand?  
*Christoph Schar (Switzerland), E Fischer*
- 11:10 - 11:20 P02.02 Yield modelling of Mediterranean crops: a probabilistic approach  
*Roberto Ferrise (Italy), M Moriondo, M Bindi*
- 11:20 - 11:30 P02.03 Assessment of statistical downscaling methods - application and comparison of two statistical methods to a single site in Lisbon  
*Pedro Lopes (Portugal)*
- 11:30 - 11:40 P02.04 India and climate change in the post KYOTO regime  
*Vikrant Pachnanda (India), U Kacker*
- 11:40 - 11:50 P02.05 Meeting the needs for climate observations: the role of the Global Climate Observing System (GCOS)  
*John Zillman (Australia)*
- 11:50 - 12:00 P02.06 Nanosensor technology for following phosphate partitioning in plants  
*Helle Juel Martens (Denmark), S Gjetting, AT Fuglsang, A Schulz*
- 12:00 - 12:10 P02.07 Which is a better paradigm: northern annular mode, North Atlantic oscillation or centers of action?  
*Muhammad Jawed Iqbal (Pakistan), S Hameed*

11:00 - 13:15 P03

Hall C

**Session 03 - Changes in Ocean Circulation Related to Regional Climate**

- 11:00 - 11:10 P03.01 Modelling recent changes in carbon uptake in the North Atlantic  
*Karen M Assmann (Norway), C Heinze, M Bentsen, A Olsen*
- 11:10 - 11:20 P03.02 A cold 'Medieval Warm Period' and a warm 'Little Ice Age' and other climate stories from Atlantic Ocean sedimentary records of the past 500.000 years  
*Antoon Kuijpers (Denmark), MS Seidenkrantz, BA Malmgren, SR Troelstra*
- 11:30 - 11:40 P03.03 Greenland climate changes related to the strength of the Atlantic meridional overturning circulation  
*Peter L Langen (Denmark)*
- 11:40 - 11:50 P03.04 Multi decadal variability of the North Atlantic and Mediterranean SST  
*Salvatore Marullo (Italy), V Artale, R Santoleri*
- 11:50 - 12:00 P03.05 Coastal geomorphologic study with multi-temporal satellite data in around Konkan coast, Maharashtra, India  
*Deepmala Nilamwar (India)*
- 12:00 - 12:10 P03.06 Stability of the overflow across the Greenland-Scotland Ridge since 1948  
*Steffen Malskær Olsen (Denmark), B Hansen, D Quadfasel, S Østerhus*
- 12:10 - 12:20 P03.07 North Atlantic deep water collapse triggered by a Southern Ocean meltwater pulse in a glacial climate state  
*Jessica Trevena (Australia), WP Sijp, M England*
- 12:20 - 12:30 P03.08 Conclusions following the international symposium 'Effects of Climate Change on the World's Oceans'  
*Luis Valdés (Spain)*
- 12:30 - 12:40 P03.09 The rapid climate change programme (RAPID)  
*Craig Wallace, S Cunningham, M Srokosz (UK)*
- 12:40 - 12:50 P03.10 The Norwegian Sea one hundred year after  
*Svein Østerhus (Norway)*

- 12:50 - 13:00 P03.11 Weather ship station M in the Norwegian Sea “Polarfront”: the flagship of climate research  
*Svein Østerhus (Norway), I Skjelvan, T Gammelsrød*
- 13:00 - 13:10 P03.12 Bipolar Atlantic thermohaline circulation – BIAC IPY cluster # 23  
*Svein Østerhus (Norway), T Gammelsrød*

## 11:00 - 15:10 P04

Hall C

### Session 04 - Vulnerability in Carbon Sinks

- 11:00 - 11:10 P04.01 Carbon dioxide and methane fluxes linked to oxygen availability in a temperate northern peatland  
*Louise Askær (Denmark), B Elberling*
- 11:10 - 11:20 P04.02 Reduced CO<sub>2</sub> uptake in a warmer ocean due to increased remineralisation rates of organic matter in the twilight zone  
*Jørgen Bendtsen (Denmark), KM Hilligsøe, JLS Hansen, K Richardson, J Segschneider*
- 11:20 - 11:30 P04.03 The newly discovered aerobic methane release from terrestrial vegetation: causes and consequences  
*Dan Bruhn (Denmark), TN Mikkelsen, J Øbro, WGT Williams, P Ambus*
- 11:30 - 11:40 P04.04 Climate change strongly affects interaction between herbivorous insects, plants, and rhizosphere biota  
*Søren Christensen (Denmark), K Stevnbak, C Scherber, D Gladbach*
- 11:40 - 11:50 P04.05 Lifetime of anthropogenic climate change: time-scales of CO<sub>2</sub> and temperature perturbations  
*Michael Eby (Canada), K Zickfeld, A Montenegro, D Archer, K Meissner, A Weaver*
- 11:50 - 12:00 P04.06 Regional CO<sub>2</sub> fluxes estimated over North America for 2004 using a geostatistical inverse model  
*Sharon Gourджи (USA), K Mueller, D Huntzinger, V Yadav, A Hirsch, A Andrews, A Michalak*
- 12:00 - 12:10 P04.07 The changing carbon cycle  
*Nicolas Gruber (Switzerland), M JL Sarmiento, Gloor, AR Jacobson, S Mikaloff Fletcher, S Pacala, K Rodgers*
- 12:10 - 12:20 P04.08 The Biological Pump: How large and how vulnerable a component of the ocean’s carbon uptake?  
*Karen Marie Hilligsøe (Denmark), K Richardson, J Bendtsen, M Moltke Lyngsgaard, LL Sørensen*
- 12:20 - 12:30 P04.09 Mountain forest soils in the Alps release greenhouse gases  
*Robert Jandl (Austria), A Schindlbacher, B Kitzler, S Zechmeister-Boltenstern, H Van Miegroet*
- 12:30 - 12:40 P04.10 Constrain the uncertainty of terrestrial ecosystem dynamics in North America with Eddy Flux measurements  
*Qianlai Zhuang (USA), J Tang, M Chen, Y Jiang*
- 12:40 - 12:50 P04.11 Modelling of climate and disturbance effects on forest above ground biomass and net biome productivity in Oyster River and Chibougamau sites  
*Ziyu Wang (Canada), R Grant, A Arain, P Bernier, J Chen, A Govind, L Guindon, R Hember, W Kurz, D Price, G Stinson, T Trofymow*
- 12:50 - 13:00 P04.12 Terrestrial carbon-cycle feedback to climate warming: experimental evidence  
*Yiqi Luo (USA)*
- 13:00 - 13:10 P04.13 Global warming and carbon balance

- Ahmet Ruhi Mermut (Canada)*
- 13:10 - 13:20 P04.14 The symbiosis between mycorrhizal fungi and plant roots - effects on forest soil C sequestration
- Lars Ola Nilsson (Denmark), P Gundersen, L Vesterdal, H Wallander*
- 13:20 - 13:30 P04.15 Reconciling anthropogenic CO<sub>2</sub> estimates in the Nordic Seas
- Are Olsen (Norway), E Jeansson, T Johannessen, A Omar*
- 13:30 - 13:40 P04.16 Climate effects on atmospheric carbon dioxide over the last century
- Lauren E Rafelski (USA), SC Piper, RF Keeling*
- 13:40 - 13:50 P04.17 The CO<sub>2</sub> airborne fraction is increasing – why so slowly? Implications for vulnerability in the carbon-climate-human system
- Michael Raupach (Australia)*
- 13:50 - 14:00 P04.18 Prognosing terrestrial carbon cycling with uncertainties: results from a Carbon Cycle Data Assimilation System (CCDAS)
- Marko Scholze (UK), P Rayner, W Knorr, T Kaminski, R Giering*
- 14:00 - 14:10 P04.19 Ecosystem recovery after drought events in our future climate
- Merete Bang Selsted (Denmark), K Albert, P Ambus, A Michelsen, H Ro-Poulsen, T Mikkelsen, A Ibrom*

## 11:00 - 15:10 P04

Hall C

### Session 04 - Vulnerability in Carbon Sinks (cont.)

- 14:10 - 14:20 P04.20 Carbon dioxide exchanges between the land surface and the atmosphere for natural and managed ecosystems in Denmark
- Henrik Søgaard (Denmark), K Pilegaard, E Dellwik, M Herbst, T Friborg*
- 14:20 - 14:30 P04.21 Atmospheric CO<sub>2</sub> study over India: modeling and observations perspective
- Yogesh Tiwari (India), R Langenfelds, R Reddy, P Steele, R Francey*
- 14:30 - 14:40 P04.22 Regional variability of anthropogenic carbon transport in the ocean - views from the surface and the deep
- Jerry Tjiputra (Norway), C Heinze, K Assmann, M Bentsen, I Bethke, C Sturm*
- 14:40 - 14:50 P04.23 Towards understanding of carbon stabilisation mechanisms in volcanic ash soils in Andean ecosystems
- Femke Tonneijck (The Netherlands), B Jansen, L Nierop, K Verstraten, J Sevink*
- 14:50 - 15:00 P04.24 CARBOOCEAN – marine carbon sources and sinks assessment
- Andrea Volbers (Norway), C Heinze, CARBOOCEAN Consortium*
- 15:00 - 15:10 P04.25 Ecosystem carbon balance under future climate conditions; the CLIMAITE project carbon synthesis
- Mette Sustmann Carter (Denmark), LG Linden, C Beier, TN Mikkelsen, M Holmstrup, IK Schmidt, P Ambus, K Pilegaard, KR Albert, LC Andresen, MB Selsted, KS Larsen, A Ibrom*

## 11:00 - 13:00 P05

Hall C

### Session 05 - Developing a Spectrum of Models to Describe the Earth System

- 11:00 - 11:10 P05.01 How big is leakage from forestry carbon credits? Estimates from a global model.
- Montserrat Acosta (USA), B Sohngen*
- 11:10 - 11:20 P05.02 Novel natural and anthropogenic physical mechanisms of weather and climate changes
- Sergei Avakyan (Russian Federation), N Voronin*
- 11:20 - 11:30 P05.03 Impact of soil freezing and thawing dynamics on soil organic carbon stocks in permafrost regions
- Christian Beer (Germany)*

- 11:30 - 11:40 P05.04 An earth system model of intermediate complexity for studies of Quaternary climate variability  
*Andrey Ganopolski (Germany), R Calov, E Bauer, V Brovkin*
- 11:40 - 11:50 P05.05 Climate response to carbon emissions  
*Damon Matthews (Canada)*
- 11:50 - 12:00 P05.06 Regional climate changes associated with a global “2 °C-stabilization” scenario  
*Wilhelm May (Denmark)*
- 12:00 - 12:10 P05.07 Aspects of radiative efficiency of geoengineering based on climate models of different complexity  
*Igor I Mokho (Russian Federation), AV Chernokulsky, AV Eliseev, AA Karpenko*
- 12:10 - 12:20 P05.08 Climate changes in the northern Eurasia simulated by two models of different complexity  
*Igor I Mokhov (Russian Federation), AV Eliseev, MM Arzhanov, PF Demchenko, SN Denisov*
- 12:20 - 12:30 P05.09 Self-organization experimentally modeled by chemometrics and data-inspection emphasizes the strength of an exploratory pattern recognition approach in climate evaluation  
*Lars Munck (Denmark), B Møller Jespersen, L Nørgaard, S Balling Engelsen, R Bro*
- 12:30 - 12:40 P05.10 Towards climate simulations at cloud-resolving scales  
*Christoph Schar (Switzerland), C Hohenegger, P Brockhaus, C Bretherton*
- 12:40 - 12:50 P05.11 Evaluation of the atmosphere-ocean performance of EC-Earth  
*Shuting Yang (Denmark), R Bintanja, F Selten, T Semmler, X Wang, K Wyser*

## 11:00 - 12:00 P06

Hall C

### Session 06 - Tipping Elements in the Earth System

- 11:00 - 11:10 P06.01 The Gibraltar Strait: a Tipping element of the Mediterranean Ocean Circulation  
*Vincenzo Artale (Italy), A Carillo, G Sannino*
- 11:10 - 11:20 P06.02 The impact of anthropogenic aerosols on the Southern Hemisphere ocean-atmosphere circulation  
*Timothy Cowan (Australia), W Cai*
- 11:20 - 11:30 P06.03 The potential role of atmospheric nutrient supply in altering ocean productivity.  
*Timothy Jickells (UK), Al Baker*
- 11:30 - 11:40 P06.04 Bifurcation analysis of geophysical time series  
*Valerie Livina (UK), F Kwasniok, Y Sapronov, T Lenton*
- 11:40 - 11:50 P06.05 A conceptual model of D-O events  
*Kerim H Nisancioglu (Norway), TM Dokken, C Li, D Battisti*
- 11:50 - 12:00 P06.06 Did the West-Spitsbergen-Current entailed the two decades long Arctic Warming 90 years ago?  
*Arnd Bernaerts (Germany)*

## 11:00 - 15:30 P07

Hall C

### Session 07 - Informing the Future by Understanding the Past Part II

- 11:00 - 11:10 P07.25 Sea level and CO2. Lessons from the past  
*Øyvind Lidgaard (Denmark)*
- 11:10 - 11:20 P07.26 The Arctic cryosphere in the mid-Pliocene and the future  
*Daniel Lunt (UK), A Haywood*
- 11:20 - 11:30 P07.27 The Greenland Norse and the little ice age: large scale climate changes to a small scale society

- 11:30 - 11:40 P07.28 *Niels Lynnerup (Denmark), J Arneborg, J Heinemeier, E Nelson*  
A 1000 year mid-interglacial cold phase at about 400 ka BP in the Piànico lake record
- 11:40 - 11:50 P07.29 *Clara Mangili (Germany), A Brauer, P Dulski, A Moscariello, B Plessen*  
Afro-montane ecosystem stability or change? Combining methodologies to understand past, present and future ecosystem shifts within the Eastern Arc biodiversity hotspot of Tanzania and Kenya  
*Rob Marchant (UK), A Ahrends, J Finch, A Jump, J Lovett, C McClean, C Mumbi, P Platts, P Yanda*
- 11:50 - 12:00 P07.30 Simulating the climate of the early holocene  
*Uwe Mikolajewicz (Germany)*
- 12:00 - 12:10 P07.31 Reconstructing past climate change from glacier shrinkage on Kilimanjaro  
*Thomas Moelg (Austria), NJ Cullen, DR Hardy, G Kaser*
- 12:10 - 12:20 P07.32 Historical analysis of the first rain event and the number of rain days in the western part of Palakkad gap, south India  
*Raj Nikhil (India), PA Azeez*
- 12:20 - 12:30 P07.33 Rapid centennial scale reductions in North Atlantic deep water during the peak of the last interglacial period recorded in sediments from the Eirik drift  
*Ulysses Ninnemann (Norway), H Kleiven, E Galaasen*
- 12:30 - 12:40 P07.34 Did mid-Holocene climate and sea-level change trigger a shift in culture in Denmark 6000 years ago?  
*Nannan Noe-Nygaard (Denmark)*
- 12:40 - 12:50 P07.35 Environments and societies of small Caucasus (Armenia) in the light of the Quaternary climatic changes and landscape mutations  
*Vincent Ollivier (France), S Nahapetyan, P Roiron, I Gabrielyan, JJ Cornée, S Joannin, C Chataigner, J Jaubert, B Gasparyan*
- 12:50 - 13:00 P07.36 Perception & understanding of global climatic changes - a case study with the vulnerable communities in Sri Lanka  
*Prabhath De Silva Patabendi (Sri Lanka)*
- 13:00 - 13:10 P07.37 Late glacial and early holocene climatic oscillations and human waves of immigration into Scandinavia  
*Erik Brinch Petersen (Denmark)*

11:00 - 15:30 P07

Hall C

**Session 07 - Informing the Future by Understanding the Past Part II (cont.)**

- 13:10 - 13:20 P07.38 Vulnerabilities to climate change for metropolitan cities in Bangladesh and future challenges for urban planning and development  
*Khan Rubayet Rahaman (Bangladesh), MS Swapan*
- 13:20 - 13:30 P07.39 Lake ecosystem response to climate change 8200 years ago. A multi-proxy study at Lake Højby Sø, Denmark  
*Peter Rasmussen (Denmark), M Ulfeldt Hede, N Noe-Nygaard, AL Clarke, RD Vinebrooke*
- 13:30 - 13:40 P07.40 Observed summer extreme temperatures in Europe during the 21st century: a synthesis  
*Martine Rebetez (Switzerland), A Davison, O Dupont, K Gartner, M Giroud, JP Kropp, H Mayer, A Menzel, M Reinhard, D Schindler, M Suveges*
- 13:40 - 13:50 P07.41 Quaternary tufa in the Serra da Bodoquena Karst, West-Central Brazil: evidence of wet period  
*William Sallun Filho (Brazil), I Karmann, A Ernandes Martins Sallun, K Suguio*

- 13:50 - 14:00 P07.42 Severe storms drive Holocene Island evolution and coral reef biodiversity of the Houtman Abrolhos Archipelago, WA  
*Sander Scheffers (Australia), A Scheffers, D Kelletat*
- 14:00 - 14:10 P07.43 The present warming vs. the early 20th century warming in the Arctic: a 400 year perspective  
*Torben Schmith (Denmark)*
- 14:10 - 14:20 P07.44 Comparison of modeled and reconstructed sea surface temperature trends during the Holocene  
*Birgit Schneid (Germany), G Leduc, W Park*
- 14:20 - 14:30 P07.45 Pseudomorph after ikaite – called Glendonite is it a geological thermometer in cold sediments or geological oddity as it occurs close to PETM in the Fur formation  
*Bo Pagh Schultz (Denmark)*
- 14:30 - 14:40 P07.46 The North Greenland Eemian Ice Core Drilling Project (NEEM)  
*Jørgen Peder Steffensen (Denmark)*
- 14:00 - 14:10 P07.47 Global maps of reconstructed  $\delta^{13}C$  values of terrestrial biomass from 30ka BP to present  
*F Alayne Street-Perrott (UK), TJ Daley, R Fraser*
- 14:10 - 14:20 P07.48 Impacts of multidecadal climate oscillations on marine ecosystems and fish stocks  
*Svein Sundby (Norway)*
- 14:20 - 14:30 P07.49 Comparing interglacial climates: a case study of Greenland ice core impurities  
*Anders Svensson (Denmark), M Bigler, E Kettner, M Nielsen, D Dahl-Jensen*
- 14:30 - 14:40 P07.50 The Thule culture in relation to changes in climate and environment in Northeast Greenland, 1400-1850 AD  
*Mikkel Sørensen (Denmark), JT Pedersen, AB Gotfredsen, B Grønnow, BH Jakobsen, HC Gulløv, A Kroon, JF Jensen, M Meldgaard*
- 14:40 - 14:50 P07.51 How do we learn about climate sensitivity in the future?  
*Brian O'Neill (Austria), K Tanaka*
- 14:50 - 15:00 P07.52 The phytoplankton record of the end-Cretaceous warming in the Boreal realm and the Pacific Ocean  
*Nicolas Thibault (Denmark), N Schovsbo, F Surlyk, L Stemmerik*
- 15:00 - 15:10 P07.53 Land use and climate change, historic simulations with EC-EARTH  
*Michiel van der Molen (The Netherlands), B van den Hurk, W Hazeleger*
- 15:10 - 15:20 P07.54 Stratigraphical dating of ice cores using high resolution profiles  
*Mai Winstrup (Denmark), A Svensson*

## 11:00 - 12:30 P08

Hall C

### Session 08 - Earth System Feedbacks and Carbon Sequestration

- 11:00 - 11:10 P08.01 Climate change and ecosystems – new challenges, trends and solutions in research  
*Claus Beier (Denmark), L Linden, K Pilegaard, I Schmidt*
- 11:10 - 11:20 P08.02 Hotspots of greenhouse gas emissions – reducing the carbon sink potential of forest soils  
*Jesper Riis Christiansen (Denmark), P Gundersen, L Vesterdal*
- 11:20 - 11:30 P08.03 How much carbon is sequestered in forest soils? Is it enhanced by nitrogen deposition and for how long?  
*Per Gundersen (Denmark), NB Dise, IK Schmidt, K Hansen, L Vesterdal*

11:00 - 12:30 P08

Hall C

**Session 08 - Earth System Feedbacks and Carbon Sequestration (cont.)**

- 11:30 - 11:40 P08.04 Is nitrogen deposition the main driver of increasing carbon sequestration in a Danish beech forest?  
*Klaus Steenberg Larsen (Denmark), A Ibrom, K Pilegaard, P Ambus, MS Carter, C Beier*
- 11:40 - 11:50 P08.05 Water use efficiency as a measure to assess forest carbon uptake for different management strategies  
*Maj-Lena Linderson (Denmark), TN Mikkelsen, A Ibrom, A Lindroth, K Pilegaard*
- 11:50 - 12:00 P08.06 Effects of climate change on carbon sequestration in a Danish beech forest  
*Kim Pilegaard (Denmark), E Dellwik, A Ibrom*
- 12:00 - 12:10 P08.07 Climate change factors increase ammonium, amino acids, DON and DOC in soil solution in a sub-arctic birch forest in northern Sweden  
*Bjarne W Strobel (Denmark), M Olsrud, R Giesler*
- 12:10 - 12:20 P08.08 Soil carbon sequestration following afforestation in Denmark, Sweden and the Netherlands  
*Lars Vesterdal (Denmark), M-B Johansson, C van der Salm, K Hansen*
- 12:20 - 12:30 P08.09 The land CO<sub>2</sub> sink and soil carbon  
*Michiel van der Molen (The Netherlands), H Dolman, A Freibauer*

11:00 - 13:15 P09

Hall C

**Session 09 - Detection and Attribution: State of Play in 2009**

- 11:00 - 11:10 P09.01 Detection and understanding of climatic response to urbanization over major cities of India  
*Amit Dhorde (India), A Wakhare*
- 11:10 - 11:20 P09.02 Causes for the recent changes in cold and heat related mortality in England and Wales  
*Nikolaos Christidis (UK), GC Donaldson, PA Stott*
- 11:20 - 11:30 P09.03 Comparison of the global estimates of carbon dioxide from satellite and in situ measurements  
*Carlos Garcia-Soto (Spain)*
- 11:30 - 11:40 P09.04 The role of the sun in climate change  
*Katya Georgieva (Bulgaria)*
- 11:40 - 11:50 P09.05 The economic impact of climate change on agriculture in Cameroon  
*Cornelius Lambi (Cameroon), T Forbang*
- 11:50 - 12:00 P09.06 Estimation of permafrost thawing rates in the sub-arctic using recession flow analysis  
*Steve Lyon (Sweden), G Destouni, R Giesler, C Humborg, M Morth, J Seibert, J Karlsson, P Troch*
- 12:00 - 12:10 P09.07 Impact of climate variations on the north-east Atlantic shelf-break systems: lessons from a recent past.  
*Ilaria Nardello (Ireland), C Lynam, C Cusack, H Cannaby, G Nolan, H Hatun*
- 12:10 - 12:20 P09.08 Convective origin of stratospheric water vapor?  
*Johannes K Nielsen (Denmark), N Larsen, T Christensen, S Khaykin, J-P Pommereau*
- 12:20 - 12:30 P09.09 Wind speed trends over the contiguous USA  
*Sara C Pryor (USA), RJ Barthelmie, GS Takle*

- 12:30 - 12:40 P09.10 The GPS radio occultation record – a novel dataset for atmospheric change detection  
*Andrea K Steiner (Austria), G Kirchengast, BC Lackner, GC Hegerl, B Pirscher, M Borsche, Ul Foelsche*
- 12:40 - 12:50 P09.11 Early detection of the global warming impact on permafrost in East Asia  
*Qinxue Wang (Japan), M Watanabe, Q Xiao, T Wu, J Liu, O Batkhisig*

### 11:00 - 13:15 P09

Hall C

#### Session 09 - Detection and Attribution: State of Play in 2009 (cont.)

- 12:50 - 13:00 P09.12 The observed and simulated anatomy of ocean temperature trends  
*Susan Wijffels (Australia), P Barker, T Cowan, A Sullivan, M Feng*
- 13:00 - 13:10 P09.13 Will nutrient cycles in a tropical montane forest in Ecuador be affected by a changing element composition of rainfall?  
*Hans Wullaert (Germany), GO Martinson, J Homeier, E Veldkamp, W Wilcke*

### 11:00 - 12:00 P10

Hall C

#### Session 10 - Equity between Sectors and Individuals within Countries

- 11:00 - 11:10 P10.01 Progressivity in the incidence of a 'capacity and responsibility tax' to fund climate mitigation and adaptation: extending the greenhouse development rights framework  
*Paul Baer (USA), S Kartha, T Athanasiou, E Kemp-Benedict*
- 11:10 - 11:20 P10.02 Efficiency and distribution effects of resource and energy taxes for climate protection  
*Klaus Eisenack (Germany), O Edenhofer, M Kalkuhl*
- 11:20 - 11:30 P10.03 Carbon tax and equity: a sheer matter of policy design  
*Frédéric Gherzi (France), J-C Hourcade, E Combet*
- 11:30 - 11:40 P10.04 Time and space matter: how urban climate policies create inequality  
*Stephane Hallegatte (France), F Gusdorf, A Lahellec*
- 11:40 - 11:50 P10.05 Integrating flood control and water storage development in the face of anticipated climate forcings  
*Pal Hegedus (USA), R Shibatani*

### 11:00 - 14:30 P11

Hall C

#### Session 11 - Equity between Nations and Regions

- 11:00 - 11:10 P11.01 The eclipse of liberal democracy under the threat of nature - can science save us to what prize?  
*Thora Margareta Bertilsson (Denmark), A Blok*
- 11:10 - 11:20 P11.02 How fair do we want to be? An analysis of three different justice principles for post 2012 emission target definition  
*Sven Bode (Germany), A De Vita*
- 11:20 - 11:30 P11.03 Sharing the burden of adaptation financing: translating ethical principles into practical policy  
*Michel den Elzen (The Netherlands), R Dellink*
- 11:30 - 11:40 P11.04 Distributive equity concerns in an international REDD mechanism: towards a Copenhagen climate agreement  
*Kate Dooley (UK), C Okereke*
- 11:40 - 11:50 P11.05 The most likely global post-2012 policy scenarios based on expert criteria which focus on technological cooperation and developing country participation  
*Ronal Gainza Carmenates (Switzerland), JC Altamirano-Cabrera, P Thalmann*

- 11:50 - 12:00 P11.06 Estimating the global mean temperature response to greenhouse gas emissions reductions with non-uniform international action.  
*Laila Kishwar Gohar (UK), JA Lowe*
- 12:00 - 12:10 P11.07 How to engage developing countries in mitigation actions?  
*José Goldemberg (Brazil), S Coelho*
- 12:10 - 12:20 P11.08 Inequity in climate change mitigation and adaptation capacities: the case for Nigeria and Sub-Saharan Africa  
*Richard UU Iingwe (Nigeria), JE Otu, JK Ukwayi*
- 12:20 - 12:30 P11.09 Conceptualizations of justice in climate policy  
*Sonja Klinsky (Canada), H Dowlatabadi*
- 12:30 - 12:40 P11.10 The theory of justice in a warming climate  
*Jan Kunnas (Finland)*
- 12:40 - 12:50 P11.11 CO2 arithmetics and geopoethics  
*Olivier Ragueneau (France)*
- 12:50 - 13:00 P11.12 Sustainable underdevelopment or technological autonomy?  
*Petterson Molina Vale (Brazil)*
- 13:00 - 13:10 P11.13 GHG historical emissions and Equity  
*Maria Silvia Muylaert de Araujo (Brazil)*

## 11:00 - 14:30 P11

Hall C

### Session 11 - Equity between Nations and Regions (cont.)

- 13:10 - 13:20 P11.14 Implications for National Emission Reduction Targets of Halving Global Greenhouse Gas Emissions by 2050  
*Hiromi Nishimoto (Japan), N Kanie, Y Hijioka, K Morita*
- 13:20 - 13:30 P11.15 Adapting to climate change in the unequal world: patterns of vulnerabilities and the distribution of adaptation burden in the Nepal's Himalayas  
*Hemant Ojha (Nepal), B Pokharel, J Baral, G Guring, R Subedi*
- 13:30 - 13:40 P11.16 The need to mainstream climate change adaptation funding  
*Margaret Peloso (USA)*
- 13:40 - 13:50 P11.17 The role of the law in the protection of the climate  
*Bartosz Rakoczy (Poland)*
- 13:50 - 14:00 P11.18 Equity aspects of a biosphere carbon stock management response to threatened climatic catastrophe  
*Peter Read (New Zealand)*
- 14:00 - 14:10 P11.19 Mitigating the impact of uncertainties in base year and GDP forecasts on international effort sharing calculations  
*Laura Saikku (Finland), S Soimakallio*
- 14:10 - 14:20 P11.20 Estimation of carbon emission embodied in Chinese international trade in the view of final demands  
*Benyong Wei (PR China), X Fang*
- 14:20 - 14:30 P11.21 Does geography matter for the clean development mechanism?  
*Yongfu Huang (UK), T Barker*

## 11:00 - 11:30 P12

Hall C

### Session 12 - Equity in Time: Past, Present and Future Emitters and Victims

- 11:00 - 11:10 P12.01 International CO2 emissions distribution analysis from integrated assessment models  
*Nicola Cantore (Italy), M Canavari*
- 11:10 - 11:20 P12.02 Global justice and climate change  
*Kristian Høyer Toft (Denmark)*

11:20 - 11:30 P12.03 Brazil in the global arena of mitigating climate change: national interest, global equity and ambivalence  
*Eduardo Viola (Brazil)*

**11:00 - 12:15 P15**

**Hall C**

**Session 15 - Avoiding Land-Cover Change To Reduce Carbon Emissions**

- 11:00 - 11:10 P15.01 Exploring the relationship between avoided carbon emissions potential and biodiversity value – is there a role for biodiversity in REDD?  
*Matthew Foster (USA), T Brooks, R Jimenez, OML Kouamé, A Rasolohery, O Coroza*
- 11:10 - 11:20 P15.02 Effect of dissolve organic carbon, soil and air temperature, and soil moisture on soil CO<sub>2</sub> flux in different land uses  
*Javed Iqbal (PR China), H Ronggui*
- 11:20 - 11:30 P15.03 Linking remote sensing and field data to model carbon stocks in the Congo Basin: a tool for REDD  
*Kewin Bach Friis Kamelarczyk (Denmark), EJ Lindquist*
- 11:30 - 11:40 P15.04 Temporary carbon sequestration cannot prevent climate change  
*Miko Uwe Franz Kirschbaum (New Zealand)*
- 11:40 - 11:50 P15.05 Climate policy: spatial explicit heterogeneity matters – the case of tropical deforestation at Northwestern Ecuador  
*Daniel Ortega-Pacheco (USA), S Jiang, A Keeler, B Sohngen, D Southgate*
- 11:50 - 12:00 P15.06 Could China's agriculture be developed to serve the climate change mitigation? Proposal on the key factors research and demonstration project for the implementation of carbon labeling in Chin Proposal on the key factors research and demonstration project  
*Genxing Pan (PR China)*

**11:00 - 12:15 P15**

**Hall C**

**Session 15 - Avoiding Land-Cover Change To Reduce Carbon Emissions (cont.)**

- 12:00 - 12:10 P15.07 Estimation of turnover time of soil organic carbon from temperate steppe of northern China and implications for carbon sequestration after grazing exclusion  
*Liping Zhou (PR China), H Tang, Y Li*

**11:00 - 14:45 P17**

**Hall C**

**Session 17 - Carbon Capture and Storage: Technology, Economy, Social Attitudes**

- 11:00 - 11:10 P17.01 The IEA greenhouse gas R&D programme  
*John Gale (UK)*
- 11:10 - 11:20 P17.02 Full-scale CCS demo plant at Nordjyllandsværket, Denmark  
*Niels Peter Christensen (Denmark), F Dalhoff, O Biede, M Noer*
- 11:20 - 11:30 P17.03 Carbon dioxide capture R&D for fossil energy power plants  
*Jared Ciferno (USA), T Fout*
- 11:30 - 11:40 P17.04 Aqueous ammonia process for CO<sub>2</sub> capture  
*Victor Darde (Denmark), K Thomsen, WJM van Well, EH Stenby*
- 11:40 - 11:50 P17.05 Enzyme technology for carbon dioxide separation from mixed gases  
*Sonja Salmon (USA), P Saunders, M Borchert*

- 11:50 - 12:00 P17.06 A new type of absorbent for post-combustion CO<sub>2</sub> capture and its application to pilot plant in power station  
*Jae-Goo Shim* (South Korea), *J-H Kim*, *K-R Jang*
- 12:00 - 12:10 P17.07 On thermophysical properties of CO<sub>2</sub>/H<sub>2</sub>O mixtures with impurities in oxyfuel CCS systems  
*Eva Thorin* (Sweden), *J Yan*, *H Li*
- 12:10 - 12:20 P17.08 A novel method to capture and store flue gas carbon dioxide (CO<sub>2</sub>): accelerated mineral carbonation  
*Katta Jayaram Reddy* (USA), *MD Argyle*, *A Viswatej*, *DT Taylor*
- 12:20 - 12:30 P17.09 Coastal spreading of olivine to reduce atmospheric CO<sub>2</sub> concentrations: a critical analysis  
*Suzanne Hangx* (The Netherlands), *C Spiers*
- 12:30 - 12:40 P17.10 Reliability of pipe steels 42CrMo-4 and X46Cr13 during onshore carbon Dioxid injection  
*Anja Pfennig* (Germany), *A Kranzmann*
- 12:40 - 12:50 P17.11 Tracing the fate of injected CO<sub>2</sub> in the subsurface using chemical and isotopic techniques  
*Gareth Johnson* (Canada), *B Mayer*, *M Raistrick*, *M Shevalier*, *M Nightingale*, *I Hutcheon*
- 12:50 - 13:00 P17.12 A geothermal site combined with CO<sub>2</sub>-storage  
*Karl-Heinz Wolf* (The Netherlands), *D Gilding*, *A Wever*
- 13:00 - 13:10 P17.13 Matching CO<sub>2</sub> large point sources and potential geological storage sites in mainland Portugal  
*Ana Gomes* (Portugal)
- 13:10 - 13:20 P17.14 The global comeback of coal-to-liquids (CTL) technologies: can CCS make CTL compatible with climate protection needs?  
*Daniel Vallentin* (Germany), *M Fishedick*
- 13:20 - 13:30 P17.15 Expected fatalities for one wedge of carbon capture and storage mitigation in 2050  
*Minh Ha-Duong* (France), *R Loisel*
- 13:30 - 13:40 P17.16 RECCS: ecological, economic, and structural comparison of renewable energy technologies (RE) with carbon capture and storage (CCS) – an integrated approach  
*Peter Viebahn* (Germany), *M Fishedick*, *J Nitsch*
- 13:40 - 13:50 P17.17 Environmental impacts of a German CCS strategy  
*Diana Schumann* (Germany), *P Zapp*, *P Markewitz*, *A Schreiber*, *S Vögele*
- 13:50 - 14:00 P17.18 Implications of CCS for the North-Western European electricity market and for CO<sub>2</sub> emissions in The Netherlands  
*Ad Seebregts* (The Netherlands), *H Groenenberg*
- 14:00 - 14:10 P17.19 Social acceptance of carbon capture and storage (CCS) in Germany  
*Katja Pietzner* (Germany), *D Schumann*, *M Fishedick*, *A Esken*
- 14:10 - 14:20 P17.20 Experts' and laypeople's perception of carbon capture and storage in Switzerland  
*Lasse Wallquist* (Switzerland), *V Visschers*, *M Siegrist*
- 14:20 - 14:30 P17.21 Gaining public confidence in safe CO<sub>2</sub> underground storage in a populated area  
*Troels Laier* (Denmark), *H Øbro*

**11:00 - 14:45 P17**

**Hall C**

**Session 17 - Carbon Capture and Storage: Technology, Economy, Social Attitudes (cont.)**

- 14:30 - 14:40 P17.22 Carbon capture and storage in the post-Kyoto climate change negotiations  
*Karin Bäckstrand* (Sweden)

**11:00 - 12:45 P20**

**Hall C**

## Session 20 - Enhancing Energy Conservation and Efficiency

- 11:00 - 11:10 P20.01 Scouting the path to Buildings 2.0  
*Philippe Bonnet*(Denmark), *J Polastre*
- 11:10 - 11:20 P20.02 The role of steel in reducing energy use and life cycle green house gas emissions  
*Nick Coleman* (UK), *C Broadbent*, *G Coates*
- 11:20 - 11:30 P20.03 Economic competitiveness of combined heat and power district heating (CHP-DH) for climate change mitigation: a comparative analysis of schemes in the UK  
*Scott Kelly* (UK), *M Pollitt*
- 11:40 - 11:50 P20.04 Gravity goods ropeway an alternative sustainable solution for rural transportation with out hampering to the natural environment and climate: a case study from Janagaun village  
*Deepak Babu Kandel* (Nepal), *KC Laxman*
- 11:50 - 12:00 P20.05 Residential energy demand, climate change and urban planning  
*Xiaochen Liu* (Ireland), *J Sweeney*
- 12:00 - 12:10 P20.06 Low temperature laundering: life cycle assessment  
*Jesper Duus Nielsen* (Denmark), *S Munk*
- 12:10 - 12:20 P20.07 Integrating climate change concerns into energy efficiency in Uganda  
*Martin Luther Mukibi* (Uganda), *A Nabuduwa*
- 12:20 - 12:30 P20.08 Estimation of the total effect of Novozymes' enzyme production in 2007 on climate change  
*Per Henning Nielsen* (Denmark), *AM Nielsen*, *J Kløverpris*
- 12:30 - 12:40 P20.09 Massively reducing CO2 emission by innovative computing education  
*Reiner Hartensen* (Germany)

11:00 - 14:30 P24

Hall C

## Session 24 - The Role of Agriculture in Mitigating Climate Change Part II

- 11:00 - 11:10 P24.21 Nitrous oxide emissions and soil physico-chemical changes: effects of tillage systems  
*James K Mutegi*(Denmark), *SO Petersen*, *LJ Munkolm*, *BM Petersen*
- 11:10 - 11:20 P24.22 Deep soil carbon sequestration rates under no tillage in tropical and temperate climate  
*Rodrigo S Nicoloso* (USA), *CW Rice*, *TJC Amado*, *JE Fiorin*
- 11:20 - 11:30 P24.23 The role of complex agroecosystems in sequestering carbon and mitigating global warming  
*Maren Oelbermann* (Canada), *L Echarte*, *K Vachon*, *C Dubois*
- 11:30 - 11:40 P24.24 Stock, dynamics of soil organic carbon of China's croplands and the role in climate change mitigation  
*Genxing Pan* (PR China)
- 11:40 - 11:50 P24.25 Agriculture: a potential source of greenhouse gases and their mitigation strategies  
*Amitava Rakshit* (India), *NC Sarkar*, *H Pathak*, *RK Maiti*, *AK Makar*, *PL Singh*
- 11:50 - 12:00 P24.26 Mitigation of greenhouse gas fluxes from cultivated organic soils by raising water table  
*Kristiina Regina* (Finland), *M Myllys*
- 12:00 - 12:10 P24.27 How critical is the baseline to assess carbon sequestration in agricultural soils?  
*Charles W Rice* (USA), *TJC Amado*, *RS Nicoloso*
- 12:10 - 12:20 P24.28 Influence of soil tillage systems on soil organic matter dynamics in some soils of Transylvania (Romania)  
*Teodor Rusu* (Romania), *P Gus*, *I Bogdan*, *P Moraru*, *A Pop*, *H Cacovean*, *L Pop*
- 12:20 - 12:30 P24.29 NIRS-LS-SVM to estimate carbon mitigation potential of agricultural land in Brazilian Cerrado soils

*Sandra Oliveira Sá (Brazil), D Althmann, KL Figueiredo, M Bernoux, RJ Poppi, CC Cerri*

- 12:30 - 12:40 P24.30 Land use and drainage controls on greenhouse gas emissions from managed peatland  
*Kirsten Schelde (Denmark), P-E Lærke, M Lægdsmand, C Kjærgaard, JE Olesen*

**11:00 - 14:30 P24**

**Hall C**

**Session 24 - The Role of Agriculture in Mitigating Climate Change Part II (cont.)**

- 12:40 - 12:50 P24.31 Methanogenic archaea: conditions for inhibitory action of four saturated fatty acids when added to pure cultures  
*Carla Riccarda Soliva (Switzerland), S Bucher, L Meile, M Kreuzer*
- 12:50 - 13:00 P24.32 Sugar beet, bioethanol, and climate change  
*Jens Carl Streibig (Denmark), C Ritz, CB Pipper, F Yndgaard, K Fredlund, J Nyholm Thomsen*
- 13:00 - 13:10 P24.33 Carbon sequestration by cropland soil in China: potential and feasibility  
*Xiaoke Wang (PR China), F Lu, B Han, Z Ouyang*
- 13:10 - 13:20 P24.34 Urban agriculture and its impact on climate change - Atatürk Forest Farm in Ankara as a sample  
*Meltem Yilmaz (Turkey)*
- 13:20 - 13:30 P24.35 Impacts of climate change factors (temperature, drought, elevated CO<sub>2</sub>) on CO<sub>2</sub>, N<sub>2</sub>O and CH<sub>4</sub> fluxes in an upland grassland  
*Jean-François Soussana (France), A Cantarel, JMG Bloor*
- 13:30 - 13:40 P24.36 Adapting agriculture and managed ecosystems to climate change (ADAGE project)  
*Jean-François Soussana (France), and ADAGE Consortium Members*
- 13:40 - 13:50 P24.37 Modelling climate change impacts on grasslands and possible adaptations of livestock systems  
*Jean-François Soussana (France), A-I Graux, N Brisson, D Hill, R Lardy*
- 13:50 - 14:00 P24.38 Vulnerability assessment of livestock and grasslands to climate change and extreme events (VALIDATE project)  
*Jean-François Soussana (France), GA Alessio, JL Durand, R Baumont, F Volaire, J Roy, S Lavorel, X Le Roux, N Viovy, F Ruget, M Duru, PA Jayet, L Terray et al.*
- 14:00 - 14:10 P24.39 Mitigating livestock greenhouse gas balance through carbon sequestration in grasslands  
*Jean-François Soussana (France), K Klumpp, T Tallec*
- 14:10 - 14:20 P24.40 Biochar as a soil amendment positively interacts with nitrogen fertiliser to improve barley yields in the UK  
*Alfred Gathorne-Hardy (UK), J Knight, J Woods*

**11:00 - 13:00 P28**

**Hall C**

**Session 28 - Climate Change and Air Pollution: The Role of non-CO<sub>2</sub> Atmospheric Pollutants (CH<sub>4</sub>, Halocarbons, N<sub>3</sub>), Ozone, Aerosols) in Climate Stabilization**

- 11:00 - 11:05 P28.01 Role of landfills in increasing greenhouse gases emission: case study: Tehran landfills methane emission rate, measure by landgem model  
*Leila Ahmadi (Iran), S Boudaghpour, A Ahmadi*
- 11:05 - 11:10 P28.02 Effects of climate control on air pollution: coupling an energy-environment-economy global model (E3MG) and atmospheric chemistry model (p-TOMCAT) in decarbonising international transport

- 11:10 - 11:15 P28.03 *Annela Anger (UK), O Dessens, T Barker, H Rogers, R Jones, J Pyle*  
Megacities: emissions, urban, regional and global atmospheric Pollution and climate effects, and integrated tools for assessment and mitigation (EC 7FP Project MEGAPOLI)
- 11:15 - 11:20 P28.04 *Alexander Baklanov (Denmark), M Lawrence, S Pandis, and MEGAPOLI Team*  
Potential reduction in mitigation costs from multi-gas abatement: a meta-analysis based on EMF21 and other literature on GDP costs
- 11:20 - 11:25 P28.05 *Terry Barker (UK), S Tashchilova*  
The study of anthropogenic climate change
- 11:25 - 11:30 P28.06 *Tatjana Dovbysheva (Belarus), A Yasko*  
Pilot tests of gas mixture enhanced coalbed methane recovery technology
- 11:30 - 11:35 P28.07 *Zhiming Fang (PR China), X Li, H Li, Y Wang, H Chen, G Fu*  
Condensation trails in the regional climate model CCLM
- Andrew Ferrone (Belgium), P Marbaix, B Matthews, JP van Ypersele, R Lescroart*

## 11:00 - 13:00 P28

## Hall C

### Session 28 - Climate Change and Air Pollution: The Role of non-CO2 Atmospheric Pollutants (CH4, Halocarbons, N3), Ozone, Aerosols) in Climate Stabilization (cont.)

- 11:35 - 11:40 P28.08 Impacts of climate change on air pollution levels in the Northern Hemisphere  
*Gitte Brandt Hedegaard (Denmark), J Brandt, J H. Christensen, LM Frohn, C Geels, KM Hansen*
- 11:40 - 11:45 P28.09 Quick wins for climate: a three-pronged framework for international mitigation policy  
*Stacey C Jackson (USA)*
- 11:45 - 11:50 P28.10 Isotopic analysis of atmospheric hydrocarbons from CH4 to H2, CO and CO2  
*Elna JK Nilsson (Denmark), MS Johnson*
- 11:50 - 11:55 P28.11 Urban PM2.5 aerosol source identification by factor analysis of elemental composition related to meteorological data  
*Jens Laursen (Denmark), IJK Aboh, D Henriksson, ES Lindgren, M Lundin, N Pind, T Wahnström*
- 11:55 - 12:00 P28.12 Is mitigation of aviation emissions and induced cloudiness needed to stabilise climate change <2°C?  
*Philippe Marbaix (Belgium), B Matthews, A Ferrone, J-P van Ypersele*
- 12:00 - 12:05 P28.13 Lifetime leveraging: an approach to achieving international agreement and effective climate protection using mitigation of short-lived greenhouse gases  
*Frances Moore (USA), M MacCracken*
- 12:05 - 12:10 P28.14 Climate change impact of selected 2nd generation CFC replacements  
*Ole John Nielsen (Denmark)*
- 12:10 - 12:15 P28.15 Coal burning environmental impact in central India  
*Khageshwar Singh Patel (India)*
- 12:15 - 12:20 P28.16 The role of surface active molecules in cloud droplet formation  
*Noenne Lyng Prisle (Denmark), T Raatikainen, A Laaksonen(2,3), M Bilde*
- 12:20 - 12:25 P28.17 Atmospheric clustering, absorption and anti-greenhouse effect  
*Oksana Rakhmanova (Russian Federation), A Galashev*
- 12:25 - 12:30 P28.18 Chemical characterization of airborne fine particulate matter in urban regions of Tamilnadu and their potential role in Urban Heat Island

- 12:30 - 12:35 P28.19 *Mohanraj Rangaswamy (India), C Lakhsumanan*  
Climate change characterization in São Luiz, MA, Brazil  
*Carlos Márcio de Aquino Eloi (Brazil), SO Sá, RM Silva , G de Azevedo Reschke*
- 12:35 - 12:40 P28.20 Sea surface temperature over Tropical Indian Ocean and southwest Monsoon performance  
*Umesh Singh (India), RP Singh, PS Salvekar*
- 12:40 - 12:45 P28.21 Light duty vehicle non-CO2 emissions: assessing the climate forcing  
*Timothy J Wallington (USA), OJ Nielsen*
- 12:45 - 12:50 P28.22 Evaporation of organic and inorganic/organic particles  
*Alessandro Alessio Zardini (Denmark), I Koponen, I Riipinen, M Kulmala, M Bilde*

11:00 - 13:30 P35

Hall C

**Session 35 - Adapting Coastal Zone and Marine Resources to Climate Change Part II**

- 11:00 - 11:10 P35.13 Future storm surge risk in Denmark  
*Kristine S Madsen (Denmark), I Kliem*
- 11:10 - 11:20 P35.14 Analysis of disaster vulnerability for sustainable coastal zone management: a case of cyclone Sidr 2007 in Bangladesh  
*Bishawjit Mallick (Germany), J Vogt*
- 11:20 - 11:30 P35.15 Sustainable coastline management: a resilient strategy to cope with climate change  
*Marcel Marchand (The Netherlands), T Bucx, A Jeuken, J Mulder*
- 11:30 - 11:40 P35.16 Assessing the impact of rising sea levels in Southeast Australia  
*Kathleen McInnes (Australia), B Preston, I Macadam, G Hubbert, J O'Grady*
- 11:40 - 11:50 P35.17 Climate change adaptation: Bangladesh perspective  
*Chowdhury Mohammed Farouque (Bangladesh)*

11:00 - 13:30 P35

Hall C

**Session 35 - Adapting Coastal Zone and Marine Resources to Climate Change Part II (cont.)**

- 11:50 - 12:00 P35.18 Climate changes – Impacts on coastal Mudbank formation and adaptations of coastal fisheries  
*Joseph Paimpillil (India)*
- 12:00 - 12:10 P35.19 National law & climate change adaptation: a comparative analysis with implications for response to sea level rise  
*Margaret Peloso (USA), M Caldwell, M Orbach*
- 12:10 - 12:20 P35.20 West African weather systems in the development of tropical cyclones  
*Tairu Salami (Nigeria)*
- 12:20 - 12:30 P35.21 Climate change adaptation in coastal zones: improving decision-making to support management strategies  
*Francesca Santoro (Italy), S Torresan, A Critto, A Marcomini*
- 12:30 - 12:40 P35.22 Vulnerability of Eastern Quebec coastal communities to climate change  
*Jean-Pierre Savard (Canada), F Morneau*
- 12:40 - 12:50 P35.23 Turning hazards into resources?: Climate change, floods and coastal wetlands in the Costa Brava (North-East Iberian Peninsula)  
*Anna Serra Llobet (Spain), D Saurí Pujol*
- 12:50 - 13:00 P35.24 Depletion of natural resources at Goa, India – a case study  
*Shalini Sharma (India)*
- 13:00 - 13:10 P35.25 Community adaptation to climate change and other environmental changes in the Niger Delta region of Southern Nigeria

13:10 - 13:20 P35.26 *Etiosa Uyigue* (Nigeria), *M Agho*  
Climate change: threat or opportunity for Belgian sea fisheries?  
*Els Vanderperren*(Belgium), *R De Sutter*, *H Polet*