



## International workshop on seasonal to decadal prediction

# PROGRAMME

## Monday, 13<sup>th</sup> May

0800	Registration - Coffee
0840	Opening Ceremony
	Introduction : <b>George Boer</b> , Canadian Centre for Climate Modelling and Analysis
	Welcome : <b>Philippe Bougeault</b> , Directeur du CNRM, Météo-France

### Session S1 Sources and levels of predictability

*Chair : Laurent Terray*

0900	1.1	Is AMOC more predictable than North Atlantic heat content ? - Invited <b>Grant Branstator</b> , NCAR, <b>Haiyan Teng</b>
0930	1.2	Decadal predictability and forecast skill <b>George Boer</b> , Canadian Centre for Climate Modelling and Analysis, <b>V. V. Kharin</b> and <b>W. J. Merryfield</b>
0950	1.3	Influence of volcanic eruptions on bi-decadal variability of the North Atlantic in historical, initialised simulations and observations <b>Didier Swingedouw</b> , CNRS, <b>Juliette Mignot</b> , <b>Eric Guilyardi</b>
1010	1.4	The origins of large-scale North Atlantic ocean circulation changes in the late 20th century: implications for decadal prediction <b>Stephen Yeager</b> , NCAR, <b>Gokhan Danabasoglu</b>

### 1030 - 1110 P1 Posters + Coffee break

*Chair : Ed Hawkins*

1110	1.5	Anthropogenic aerosol forcing of Atlantic tropical storms <b>Nick Dunstone</b> , <b>Rosie Eade</b> , The Met Office Hadley Centre, <b>D. M. Smith</b> , <b>L. Hermanson</b> , <b>R. Eade</b> , <b>B. B. Booth</b>
1130	1.6	Attribution of the 2001-2010 global temperature plateau <b>Virginie Guemas</b> , Institut Català de Ciències del Clima (IC3) - Centre National de Recherches Météorologiques (CNRM), <b>Francisco Doblas-Reyes</b> , <b>Isabel Andreu-Burillo</b> , <b>Muhammad Asif</b>
1150	1.7	Land surface contribution to seasonal climate predictability: growing evidence but unfulfilled expectations <b>Hervé Douville</b> , Météo-France, <b>Yannick Peings</b> , <b>Eric Brun</b>
1210	1.8	Investigating the variations in the predictability of the South African provincial seasonal climates through HadRM3P ensemble spreads <b>Kamoru A. Lawal</b> , Climate System Analysis Group, Dept. of Env. and Geo. Science, Univ. of Cape Town, <b>Daithi A Stone</b> and <b>Babatunde J Abiodun</b>

### 1230 - 1400 P1 Posters + Lunch break

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**Session S1 Sources and levels of predictability (continued)**

- 1400 1.9 Seasonal to decadal predictability in mid and high northern latitudes  
**Torben Koenigk**, SMHI, Christof König Beatty, Mihaela Caian, Ralf Döscher, Uwe Mikolajewicz, Klaus Wyser
- 1420 1.10 Regional variability in the potential predictability of Arctic climate on seasonal to interannual time scales  
**Jonathan Day**, University of Reading, Steffen Tietsche, Ed Hawkins, Dan Hodson, Sarah Keeley

**Session S2 Assimilation, initialization, ensemble generation and bias**

**Chair : Franco Molteni**

- 1440 2.1 A coupled ensemble ocean data assimilation system for seasonal prediction in Australia and its comparison with other state-of-the-art reanalyses - Invited  
**Oscar Alves**, Bureau of Meteorology, Yonghong Yin, Li Shi, Debbie Hudson, Patricia Okely and Harry Hendon
- 1510 2.2 Ensemble Data Assimilation in Coupled Ocean-Atmosphere Models:  
The Role of Ocean-Atmosphere Interaction  
**Zhengyu Liu**, University of Wisconsin, Shu Wu, Shaoqing Zhang, Yun Liu, Feiyu Lu, Xinyao Rong

**1530 - 1600 P1 Posters + Coffee break**

- 1600 2.3 Seasonal-decadal prediction with the EnKF and NorESM : a twin experiment  
**François Counillon**, NERSC/BCCR, I. Bethke, N . Keenlyside, M. Bentsen, L. Bertino and F. Zheng
- 1620 2.4 Multiple Ocean Analysis Initialization for Ensemble ENSO Prediction using NCEP CFSv2  
**Bohua Huang**, Center for Ocean-Land-Atmosphere Studies and George Mason University, Jieshun Zhu, Lawrence Marx, James L. Kinter III, Magdalena A. Balmaseda, Rong-Hua Zhang, and Zeng-Zhen Hu
- 1640 2.5 An Assessment of Hindcast-Based Ocean Initial Conditions for Climate Prediction Experiments  
**Gokhan Danabasoglu**, NCAR, Steve Yeager
- 1700 2.6 A comparison between ensemble hindcasts obtained from oceanic and from atmospheric perturbations in the MPI-ESM climate model.  
**Camille Marini**, Institut für Meereskunde, Universität Hamburg, Armin Koehl, Detlef Stammer

**1730 - 1900 Icebreaker**

## Tuesday, 14<sup>th</sup> May

### Session 2 Assimilation, initialization, ensemble generation and bias (continued)

Chair : William Merryfield

- 0850 2.7 Impact of initial conditions with respect to external forcing in the decadal predictions: a sensitivity experiment  
**Susanna Corti**, ISAC-CNR & ECMWF, Tim Palmer, Magdalena Balmaseda, Antje Weisheimer, Wilco Hazeleger, Bert Wouters, Sybren Drijfhout, Dough Smith, Nick Dunstone, Holger Pohlmann, Jürgen Kröger, Jin-Song von Storch
- 0910 2.8 Multiyear climate predictions using two initialisation strategies  
**Wilco Hazeleger**, Royal Netherlands Meteorological Institute (KNMI), V. Guemas, B. Wouters, S. Corti, I. Andreu-Burillo, F.J. Doblas-Reyes, K. Wyser, M. Caian, R. Haarsma
- 0930 2.9 Climate Drift in CCSM4 Decadal Prediction Experiment  
**Haiyan Teng**, NCAR, Grant Branstator, Gerald Meehl, Alicia Karspeck, Steve Yeager
- 0950 2.10 The interpretation of biases in decadal climate predictions  
**Ed Hawkins**, NCAS-Climate, University of Reading, Buwen Dong, Jon Robson, Rowan Sutton
- 1010 2.11 Analysis of model drift in a climate forecast system used for decadal predictions  
**Emilia Sanchez-Gomez**, CERFACS/CNRS, Christophe Cassou, Elodie Fernandez

### 1030 - 1110 P1 Posters + Coffee break

### Session S3 Seasonal-interannual forecast systems and results

Chair : Eric Guilyardi

- 1110 3.1 An extended re-forecast set for ECMWF system 4 in the context of EUROSIP - Invited  
**Tim Stockdale**, ECMWF
- 1140 3.2 Long Range Predictability of the NAO and Atlantic Winter Weather  
**Adam Scaife**, Met Office Hadley Centre, A.Arribas, E.Blockley, A.Brookshaw, R.T.Clark, N.Dunstone, R.Eade, D.Fereday, C.K.Folland, M.Gordon, L.Hermanson, J.R.Knight, C.MachLachlan, A.Maidens, M.Martin, A.K.Peterson, D.Smith, M.Vellinga, E.Wallace and A.Williams
- 1200 3.3 Improvement in winter seasonal predictability by including a stratospheric description in the forecast model  
**Michel Déqué**, Météo-France, Jean-François Guérémy, David Saint-Martin
- 1220 3.4 Climate and seasonal forecast quality impact of increased horizontal ocean resolution  
**Isabel Andreu-Burillo**, IC3/CFU, F. Doblas-Reyes, V. Guemas, M. Asif

### 1240 - 1400 P1 Posters + Lunch break

Chair : Wilco Hazeleger

- 1400 3.5 An Assessment of the Skill of GEOS-5 Seasonal forecasts  
**Yoo-Geun Ham**, Global Modeling and Assimilation Office, NASA/GSFC, Siegfried Schubert, and Michele M. Rienecker
- 1420 3.6 Towards a Seasonal Prediction System using MPI-ESM  
**Daniela Domeisen**, University of Hamburg, Institute of Oceanography, Kristina Fröhlich, Wolfgang Müller, Michael Botzet, Holger Pohlmann, Luis Kornblueh, Steffen Tietsche, Dirk Notz, Robert Piontek, Johanna Baehr
- 1440 3.7 Predictability of ENSO and IOD and their global teleconnections  
**Swadhin Behera**, JAMSTEC, Takeshi Doi, Yukio Masumoto, and Toshio Yamagata
- 1500 3.8 Short-term climate extremes: prediction skill and predictability  
**Emily Becker**, Climate Prediction Center (NOAA/NWS/NCEP), Huug van den Dool, Malaquias Pena

### 1520 - 1600 P1 Posters + Coffee break

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**Chair : Edwin Schneider**

- 1600 3.9 Land and atmosphere initial states influence surface temperature forecast in dynamical seasonal predictions  
**Stefano Materia**, Centro Euro Mediterraneo sui Cambiamenti Climatici, Andrea Borrelli, Alessio Bellucci, Silvio Gualdi
- 1620 3.10 Impact of snow initialization in coupled ocean-atmosphere seasonal forecasts  
**Yvan Orsolini**, Norwegian Institute for Air Research (NILU), R. Senan, A. Carrasco, G. Balsamo, F.J. Doblas-Reyes, F. Vitart, A. Weisheimer, and R.E. Benestad
- 1640 3.11 Seasonal forecasts of the Arctic sea ice with CNRM-CM5.1  
**Matthieu Chevallier**, CNRM-GAME, Météo-France, CNRS, David Salas y Méria, Virginie Guemas, Agathe Germe, Michel Déqué, Aurore Volodko
- 1700 3.12 The North American Multi-Model Ensemble Intraseasonal to Interannual Prediction System  
**Ben Kirtman**, University of Miami

## Wednesday, 15<sup>th</sup> May

### Session S4 Decadal forecast systems and results

**Chair : Ben Kirtman**

- 0840 4.1 Regional forecast quality of the CMIP5 multi-model decadal climate predictions - Invited  
**Francisco Doblas-Reyes**, ICREA and Institut Català de Ciències del Clima (IC3), Andreu-Burillo, Y. Chikamoto, J. García-Serrano, V. Guemas, M. Kimoto, T. Mochizuki, L.R.L. Rodrigues, G.J. van Oldenborgh
- 0910 4.2 Improved predictions of global climate in the decade ahead using a new version of the Met Office Hadley Centre Decadal Prediction System  
**Jeff Knight**, Met Office Hadley Centre, Martin Andrews, Doug Smith, Alberto Arribas, Nick Dunstone, Craig MacLachlan, Drew Peterson, Adam Scaife, and Andrew Williams
- 0930 4.3 Results from the CFSv2 CMIP5 Decadal Forecasts  
**Edwin Schneider**, George Mason University and COLA,
- 0950 4.4 Decadal predictions by FGOALS-g2  
**Bin Wang**, Center for Earth System Science, Tsinghua University, LASG, Institute of Atmospheric Physics, Chinese Academy of Sciences, Mimi Liu, Yongqiang Yu, Lijuan Li
- 1010 4.5 Added-value from initialization in skilful predictions of North Atlantic multi-decadal variability  
**Javier Garcia-Serrano**, Laboratoire d'Océanographie et du Climat (LOCEAN-IPSL), UPMC, Virginie Guemas, Francisco J. Doblas-Reyes

### 1030 - 1110 P2 Posters + Coffee break

**Chair : Wolfgang Müller**

- 1110 4.6 Skillful predictions of Atlantic multi-year to decadal variability in the GFDL forecast system  
**Rym Msadek**, GFDL/NOAA, Gabriel Vecchi, Tom Delworth, Tony Rosati, Shaoqing Zhang
- 1130 4.7 Multiyear predictions of the North Atlantic variability - the impact of increased ocean model resolution  
**Daniela Matei**, Max Planck Institute for Meteorology, Johann Jungclaus, Wolfgang Müller, Holger Pohlmann, Ketan Kulkarni, Helmuth Haak, Jochem Marotzke
- 1150 4.8 Predictability of the rapid warming of the North Atlantic in the mid 1990s and its climate impacts  
**Jon Robson**, NCAS-Climate, University of Reading, Rowan Sutton and Doug Smith
- 1210 4.9 Is Atlantic multi-decadal variability about to change phase ?  
**Leon Hermanson**, Met Office, Martin Andrews, Nick Dunstone, Rosie Eade, Jeff Knight, Adam Scaife, Doug Smith

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**1230 - 1400 P2 Posters + Lunch break**

1400 4.10 Multi-year prediction skill of Atlantic hurricane activity in CMIP5 decadal hindcasts using a statistical index

**Louis-Philippe Caron**, Meteorology Department, Stockholm University, Colin G. Jones, Francisco Doblas-Reyes

1420 4.11 Decadal prediction for the Arctic

**Klaus Wyser**, Rossby Centre - SMHI, Mihaela Caian, Torben Königk, Colin Jones

**Session S5 Forecast verification, calibration and combination**

*Chair : Susanna Corti*

1440 5.1 Assessing skill from retrospective forecasts - Invited

**Doug Smith**, Met Office, Rosie Eade, Nick Dunstone, Leon Hermanson, Holger Pohlmann, Adam Scaife

1510 5.2 Reliability of seasonal-to-decadal forecasts from a seamless prediction perspective

**Antje Weisheimer**, ECMWF & University of Oxford, Susanna Corti

**1530 - 1600 P2 Posters + Coffee break**

1600 5.3 Probabilistic verification of decadal CMIP5 hindcast experiments

**Sophie Stolzenberger**, Meteorological Institute, University of Bonn, R. Glowienka-Hense, A. Hense, T. Spangehl, A. Mazurkiewicz, M. Schröder, R. Hollmann, F. Kaspar

1620 5.4 Reliable probabilities through statistical post-processing of ensemble predictions

**Bert Van Schaeybroeck**, Royal Meteorological Institute of Belgium, Stéphane Vannitsem

1640 5.5 Variation in the reliability of ensemble predictions of SSTs from seasonal to decadal timescales

**Chun Kit Ho**, **Ed Hawkins**, NCAS-Climate, University of Reading, Len Shaffrey, Jochen Broecker, Leon Hermanson, James Murphy, Doug Smith

1700 5.6 An empirical-dynamical South America seasonal precipitation prediction system

**Caio Coelho**, Centro de Previsão de Tempo e Estudos Climáticos (CPTEC), Instituto Nacional de Pesquisas Espaciais (INPE)

**2000 Gala dinner**

**Thursday, 16<sup>th</sup> May**

**Session S6 Targeted predictions, downscaling and applications**

*Chair : Paul Kushner*

0840 6.1 How can Seasonal to Decadal forecasts be useful to the power sector ? - Invited

**Laurent Dubus**, EDF R&D, Julien NAJAC, Sylvie PAREY

0910 6.2 Is there value in very long lead dynamical seasonal precipitation forecasts ?

**William Merryfield**, Canadian Centre for Climate Modelling and Analysis, Woo-Sung Lee, Slava Kharin

0930 6.3 Seasonal Forecast in France and application to hydrology

**Stéphanie Singla**, **Jean-Pierre Céron**, Direction de la Climatologie, Météo-France, E. Martin, F. Regimbeau, M. Déqué, F. Habets and J.-P. Vidal

0950 6.4 Multi-model seasonal forecasting of global drought onset

**Xing Yuan**, Department of Civil and Environmental Engineering, Princeton University, Eric F. Wood

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- 1010 6.5 An Integrated Seasonal Flood Outlook for Agriculture Risk Management  
*SHM Fakhruddin, Asian Institute of Technology, Prof. Dr. M.S. Babel, Prof. Dr. Francesco Ballio*

**1020 - 1110 P2 Posters + Coffee break**

**Chair : Rym Msadek**

- 1110 6.6 Seasonal Climatic and Hydrologic Modeling and Prediction in the Yellow River Basin in China  
*Shourong Wang, China Meteorological Administration, Yiping YAO, Youye Liang, Ruby Leung*
- 1130 6.7 Decadal predictions for Europe: Regional downscaling of the MiKlip decadal experiments  
*Hendrik Feldmann, Karlsruhe Institute of Technology (KIT), Sebastian Mieruch, Marianne Uhlig, Claus-Jürgen Lenz, Kevin Sieck, Christoph Kottmeier*
- 1150 6.8 Downscaling seasonal forecasts over South Africa  
*Christopher Lennard, University of Cape Town*
- 1210 6.9 Stochastic simulation as an alternative (or supplement) to decadal predictions  
*Arthur Greene, International Research Institute for Climate and Society, Columbia University, Lisa Goddard*

**1230 - 1400 P2 Posters + Lunch break**

**Session S7 Summaries/discussion**

**Chair : George Boer**

- 1400 Sources and levels of predictability: A. Scaife/G. Branstator  
1420 Assimilation, initialization, ensemble generation and bias: M. Ishii/O. Alves  
1440 Seasonal-interannual forecast systems and results: M. Déqué/T. Stockdale  
1500 Decadal forecast systems and results: C. Cassou/F. Doblas-Reyes  
1520 Forecast verification, calibration and combination: C. Coelho/D. Smith  
1540 Targeted predictions, downscaling and applications: H. Douville/L. Dubus

**1600 Wrap up**

POSTER PROGRAMME P1

Monday 13<sup>th</sup> May & Tuesday 14<sup>th</sup> May

- S1 Sources and levels of predictability
- S2 Assimilation, initialization, ensemble generation and bias
- S3 Seasonal-interannual forecast systems and results

Session S1    Sources and levels of predictability

- 1 S1 Previsiblity of the North Atlantic multidecadal internal variability in the CNRM-CM5 model  
**Yohan Ruprich-Robert**, Cefracs, Christophe Cassou
- 2 S1 Seasonal forecasts of the exceptional boreal winters of 2009/10 and 2010/11  
**David Fereday, Jeff Knight**, Met Office Hadley Centre, Anna Maidens, Adam Scaife, Alberto Arribas, Craig MacLachlan, Drew Peterson
- 3 S1 Representation and Predictability of Northern Hemisphere Snow Trends with Large Ensembles of Climate Simulations  
**Lawrence Mudryk, Paul Kushner**, Department of Physics, University of Toronto, Chris Derksen
- 4 S1 Response of the CNRM-CM5 coupled model to an enhanced Greenland ice melting.  
**Mathieu Hamon**, CERFACS, Philippe Rogel
- 6 S1 Enhanced ENSO precursors in the Western North Pacific due to greenhouse gas forcing  
**S-Y Simon Wang**, Utah Climate Center/Utah State University, Michelle L'Heureux, Jin-Ho Yoon
- 8 S1 Control of decadal and bidecadal climate variability in the tropical Pacific by the off-equatorial South Pacific Ocean  
**Hiroaki Tatebe**, Research Institute for Global Change, JAMSTEC, Yukiko Imada, Masato Mori, Masahide Kimoto, Hiroyasu Hasumi
- 9 S1 Possible remote influence on pacific decadal variability and predictability  
**Takashi Mochizuki**, Japan Agency for Marine-Earth Science and Technology, Masahiro Watanabe, Masahide Kimoto, Masayoshi Ishii
- 10 S1 Tropospheric Biennial Oscillation of the Western Pacific Subtropical High and its Relationships with the Atmosphere-Ocean Interaction  
**Yunyun Liu**, Beijing Climate Center, Ding Yihui, Gao Hui, Li Weijing
- 11 S1 An Enhanced Influence of Tropical Indian Ocean on the South Asia High after the Late 1970s  
**Gang Huang**, Institute of Atmospheric Physics, Chinese Academy of Sciences, Xia Qu
- 12 S1 Decadal prediction of sea level in the western North Pacific  
**Tamaki Yasuda**, Meteorological Research Institute, Yukimasa Adachi, Masayoshi Ishii, Seiji Yukimoto
- 13 S1 Decadal forecasting derived from the mysterious coherence between Pacific climate oscillations and the Great Salt Lake level  
**Simon Wang**, Utah Climate Center/Utah State University, Robert Gillies
- 14 S1 The Multidecadal component of the Western Mediterranean Variability and its global connections.  
**Maria J. OrtizBevia**, University of Alcala, Francisco J. Alvarez-García, Antonio Ruiz de Elvira
- 15 S1 Modelled and observed teleconnections between Indo-Pacific rainfall and extra-tropical flow regimes  
**Franco Molteni**, ECMWF, Susanna Corti, Tim Stockdale, David Straus
- 16 S1 Understanding Prediction Skill of Seasonal Mean Precipitation over the Tropics  
**Mingyue Chen**, Climate Prediction Center/NCEP/NOAA, Arun Kumar, Wanqiu Wang
- 17 S1 Influence of spring-time Eurasian-Himalayan snow on the evolution of the Indian summer monsoon  
**Retish Senan**, Department of Geosciences, University of Oslo, Yvan J. Orsolini, Frode Stordal
- 18 S1 A possible factor for better representation of Asian summer monsoon  
**Shoji Hirahara**, Japan Meteorological Agency, Yuhei Takaya, Satoko Matsueda

**Session S2 Assimilation, initialization, ensemble generation and bias**

- 22 S2 Improving Coupled Climate Model using EnKF for Parameter Optimization  
**Zhengyu Liu**, University of Wisconsin-Madison, Yun Liu, Xingrong Wu, Xuefeng, Zhang, Shaoqing Zhang, Rob Jacob, Shu Wu, Xinyao Rong, Feiyu Lu
- 23 S2 Towards prediction of climate variability in the Nordic Seas with NorCPM (NorESM+EnKF)  
**Ingo Bethke**, Bjerknes Center for Climate Research, Francois Counillon, Mats Bentsen, Laurent Bertino, Tor Eldevik, Noel Keenlyside, Øystein Skagseth
- 24 S2 Full state ocean initialization using an ensemble Kalman Filter in a coupled climate model  
**Sebastian Brune**, Institute of Oceanography, University of Hamburg, Lars Nerger, Johanna Baehr
- 25 S2 Impact of SST initialisation on the ocean subsurface over the period 1949-2000  
**Sulagna Ray**, LOCEAN/IPSL, Juliette Mignot, Didier Swingedouw, Eric Guilyardi
- 26 S2 Importance of the deep ocean for model bias reduction and oceanic decadal predictability  
**Florian Seveldt, Alexey Fedorov**, Yale University
- 27 S2 Understanding coupled model errors in the tropical Pacific using initialised hindcasts and a lead time analysis  
**Benoît Vannière**, Locean-IPSL, Eric Guilyardi, Thomas Tonnaiazzo, Steve Woolnough
- 28 S2 Analysing model drift in full-field-initialised seasonal hindcasts  
**David Mulholland**, University of Reading, Keith Haines (University of Reading)
- 29 S2 Comparing and testing optimal perturbations for decadal climate predictions: do they work ?  
**Ed Hawkins**, NCAS-Climate, University of Reading, Nick Dunstone, Laure Zanna, Rowan Sutton
- 30 S2 Initialization of the coupled model MPI-ESM for seasonal predictions  
**Johanna Baehr**, University of Hamburg, Robert Piontek, Kristina Fröhlich, Michael Botzet, Wolfgang Müller
- 31 S2 An anomaly transform method based on total energy and ocean heat content norms for generating ocean dynamics disturbances for decadal climate forecasts  
**Vanya Romanova**, Meteorologisches Institut der Universität Bonn, Andreas Hense
- 32 S2 Towards an ensemble prediction system for decadal climate forecasts - first results on variation of initial conditions  
**Claus-Juergen Lenz**, Deutscher Wetterdienst, Barbara Frueh, Fatemeh Davary Adalatpanah, Clementine Dalelane, Paul Becker
- 33 S2 Comparison of initialisation methods in global dynamic decadal climate forecasts  
**Danila Volpi**, Institut Català de Ciències de Clima (IC3), Francisco J. Doblas-Reyes, Virginie Guemas
- 34 S2 Improving the anomaly initialisation for decadal predictions  
**Mihaela Caian**, SMHI, Klaus Wyser, Louis-Philippe Caron, Colin Jones
- 35 S2 A comparison of initialization strategies for decadal predictions  
**Iuliia Polkova**, Max Planck Institute for Meteorology, Iuliia Polkova, Armin Koehl, Detlef Stammer
- 36 S2 Impact of initialization and model resolution on decadal climate predictions with the MiKlip system  
**Holger Pohlmann**, Max Planck Institute for Meteorology, Wolfgang Müller, Ketan Kulkarni, Jochem Marotzke
- 37 S2 Testing different initialization strategies with surface variables for decadal projections in a perfect model framework  
**Jérôme Servonnat**, LOCEAN - LSCE- IPSL, Juliette Mignot, Eric Guilyardi, Didier Swingedouw, Roland Seferian, Sonia Labetoulle
- 38 S2 Decadal predictions of Southern Ocean sea ice : testing different initialization methods with an Earth-system Model of Intermediate Complexity  
**Violette Zunz**, Centre for Earth and Climate Research, Université Catholique de Louvain, Georges Lemaître, Hugues Goosse, Svetlana Dubinkina
- 39 S2 Use of a dynamic-thermodynamic sea ice model in the ECMWF seasonal forecast system and the impact of different initialisation methods.  
**Sarah Keeley**, ECMWF, Yongming Tang, Magdalena Balmaseda, Kristian Mogensen, Peter Janssen
- 40 S2 Ensemble of sea ice initial conditions for interannual climate predictions  
**Virginie Guemas**, Institut Català de Ciències del Clima (IC3) / CNRM, Francisco Doblas-Reyes, Kristian Mogensen, Yongming Tang, Sarah Keeley

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- 41 S2 Land surface data assimilation in a climate context  
**Bodo Ahrens**, Goethe University Frankfurt am Main, Julian Tödter
- 42 S2 Extension of the Safran-Isba-Modcou hydrometeorological reanalysis on the entire 20th century  
**Marie Minvielle**, Direction de la climatologie, Météo-France, Jean-Pierre Céron, Christian Page, François Besson

**Session S3 Seasonal-interannual forecast systems and results**

- 43 S3 An overview of the Climate Prediction Task Force  
**Annarita Mariotti**, NOAA Climate Program Office, Ben Kirtman, Matt Newman, Scott Weaver, Vasu Misra
- 44 S3 Seasonal forecasts with the atmospheric and coupled model at Hydrometcentre of Russia  
**Mikhail Tolstykh**, Inst. of Numerical Mathematics/RAS, and Hydrometcentre of Russia, Nikolay Diansky, Anatoly Gusev, Dmitry Kiktev, Radomir Zaripov
- 45 S3 The performance of BCC\_CSM1.1(m) on seasonal forecast  
**Xiaoyun Liang**, Beijing Climate Center, China Meteorological Administration (CMA), Tongwen Wu, Xiangwen Liu, Yanjie Cheng, and Qiaoping Li
- 46 S3 Applications of BCC\_AGGCM2.2 Model in Extended Range Forecast  
**Qiaoping Li**, Beijing Climate Center, China Meteorological Administration (CMA), Tongwen Wu, Xiangwen Liu, Xiaoyun Liang
- 47 S3 An assessment of ENSO predictability barrier with seasonal feedback models  
**Maria J. OrtizBevia**, **Miguel Tasambay**, University of Alcala, Instituto Politecnico de Riobamba, F. Alvarez-Garcia
- 49 S3 Assessment of CFS forecast skill over the Pacific Islands - A processes based study  
**Hanna Annamalai**, IPRC/SOEST, University of Hawaii, Arun Kumar, Jan Hafner and Hui Wang
- 50 S3 Seasonal forecast skill of Indian summer monsoon in the ENSEMBLES coupled models  
**C.K Unnikrishnan**, National Atmospheric Research Laboratory Gadanki, M Rajeevan and S Vijaya Bhaskara Rao
- 51 S3 Why was the prediction of the 2012 positive Indian Ocean Dipole Mode difficult ?  
**Takeshi Doi**, JAMSTEC, Wataru Sasaki, Swadhin K. Behera, Yukio Masumoto, and Toshio Yamagata
- 52 S3 Predictability of the subtropical dipole modes in a coupled ocean-atmosphere model  
**Chaoxia Yuan**, Japan Agency for Marine-Earth Science and Technology (JAMSTEC), Tomoki Tozuka, Jing-Jia Luo, and Toshio Yamagata
- 53 S3 An assessment of the representation of N. Atlantic blocking and jet-stream variability in a state-of-the-art seasonal prediction system.  
**Panos Athanasiadis**, Centro Euro-Mediterraneo sui Cambiamenti Climatici (CMCC), Silvio Gualdi, Alessio Bellucci, Stefano Matera and Andrea Borrelli.
- 55 S3 Model uncertainty in the ECMWF seasonal forecasting system 4  
**Antje Weisheimer**, ECMWF & University of Oxford,
- 56 S3 A "stochastic dynamics" method for ensemble seasonal forecasts with the CNRM-CM5.1 GCM  
**Lauriane Batté**, Institut Català de Ciències del Clima (IC3), Michel Déqué
- 57 S3 Skill of Persistence Forecasts of Arctic Sea Ice Concentration, Area and Extent on Monthly to Seasonal Time-Scales  
**Adrienne Tivy**, National Research Council

**POSTER PROGRAMME P2**

**Wednesday 15<sup>th</sup> May & Thursday 16<sup>th</sup> May**

- S4 Decadal forecast systems and results
- S5 Forecast verification, calibration and combination
- S6 Targeted predictions, downscaling and applications

**Session S4 Decadal forecast systems and results**

- 58 S4 Statistical decadal predictions for SSTs: a benchmark for dynamical GCM predictions  
*Chun Kit Ho, Ed Hawkins, NCAS-Climate, University of Reading, Len Shaffrey, Fiona Underwood*
- 59 S4 Seasonal-to-decadal prediction studies under the SOUSEI program  
*Masaoshi Ishii, Meteorological Research Institute, Masahiro Watanabe, Tomoo Ogura, Yukio Tanaka, and Masahide Kimoto*
- 60 S4 Forecast skill of multi-year seasonal means in the MPI-ESM decadal prediction system  
*Wolfgang Müller, Max Planck Institute for Meteorology, Johanna Baehr, Helmuth Haak, Johann Jungclaus, Jürgen Kröger, Daniela Matei, Dirk Notz, Holger Pohlmann, Jin-Song von Storch and Jochem Marotzke*
- 62 S4 Understanding of processes in Decadal Climate Variability  
*Kerstin Prömmel, Freie Universität Berlin, Institut of Meteorology, Ulrich Cubasch*
- 63 S4 Decadal predictions with the HiGEM climate model  
*Len Shaffrey, Jon Robson, NCAS-Climate, University of Reading, Dave Stevens, Ed Hawkins, Chun-Kit Ho, Dan Hodson, Grenville Lister, Rowan Sutton*
- 64 S4 Seasonal-to-Interannual Variability of precipitation over Southeastern South America in CMIP5  
Decadal Hindcasts  
*Paula Gonzalez, IRI/Columbia University, Lisa Goddard*
- 65 S4 Decadal prediction in the Mediterranean region  
*Virginie Guemas, Institut Català de Ciències del Clima (IC3) - Centre National de Recherches Météorologiques (CNRM), Javier García-Serrano, Annarita Mariotti, Francisco Doblas-Reyes*
- 66 S4 Assessing the decadal predictability of Arctic sea ice in CNRM-CM5.1 : A regional study  
*Agathe Germe, Centre national de Recherche Météorologique/Groupe d'Etude de l'Atmosphère Météorologique, Météo-France, Matthieu Chevallier, David Salas y Melia, and Emilia Sanchez-Gomez*
- 67 S4 S2D prediction for Nepal - where all models failed  
*Robert Gillies, Utah Climate Center, S-Y Simon Wang, Changrae Cho*

**Session S5 Forecast verification, calibration and combination**

- 68 S5 Reliability of decadal predictions  
*Susanna Corti, ISAC-CNR & ECMWF , Antje Weisheimer, Tim Palmer, Francisco Doblas-Reyes, Linus Magnusson*
- 69 S5 Assessment of the COMBINE multimodel predictive skill  
*Alessio Bellucci, CMCC, Italy*
- 70 S5 On the impact of ensemble size on seasonal forecast skill  
*Antje Weisheimer, ECMWF & University of Oxford, Susanna Corti, Laura Ferranti*
- 71 S5 Improving the Prediction of the East Asian Summer Monsoon: New Approaches  
*Ke Fan, Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing , Ying lium huopo Chen*
- 72 S5 Improvement of multi-model ensemble seasonal prediction skills over East Asian summer monsoon region using a climate filter concept  
*Doo Young Lee, APEC Climate Center, Joong-Bae Ahn, Karumuri Ashok*
- 73 S5 Seasonal prediction of the intraseasonal variability of the West African summer monsoon precipitation  
*Luis Ricardo Lage Rodrigues, Catalan Institute of Climate Sciences (IC3), Javier Garcia-Serrano, Francisco J. Doblas-Reyes*

- 75 S5 Evaluation of decadal hindcasts using satellite simulators  
**Thomas Spangehl**, Deutscher Wetterdienst, Alex Mazurkiewicz, Marc Schröder

**Session S6 Targeted predictions, downscaling and applications**

- 77 S6 Dynamical seasonal forecasting for Australian applications  
**Oscar Alves**, Bureau of Meteorology
- 78 S6 Simple multiple linear regression model used to predict seasonal ice condition in the Canadian arctic.  
**André April**, Canadian Ice service branch, Environnement Canada
- 79 S6 Long-range (30-day) prediction of winter persistent inversions in the Intermountain West, United States  
**Robert Gillies**, Utah Climate Center, Simon Wang
- 80 S6 Self-learning fuzzy-neural seasonal predictive model for Northern Europe  
**Oleg Pokrovsky**, Main Geophysical Observatory, Roshydromet,
- 81 S6 Seasonal Monsoon rainfall prediction over the South Asian Region by Dynamical Downscaling  
**Mohan Kumar Das**, SAARC Meteorological Research Centre, S. Das, India, Md. M. Rahman
- 82 S6 Statistical Prediction of Seasonal Rainfall in India Vector Auto Regression (VAR) & Variance Decomposition (VDC) Model  
**Jyotish Prakash Basu**, West Bengal State University,
- 83 S6 Extended range forecast for diurnal rainfall episodes in Taiwan using the CFS  
**S-Y Simon Wang**, Utah Climate Center/Utah State University, H.-H. Chia, Robert Gillies
- 84 S6 Decadal predictability of West African monsoon rainfall applying the regional climate model REMO forced by ECHAM5 and MPI-ESM  
**Andreas Paxian**, Institute of Geography and Geology, University of Wuerzburg, Heiko Paeth
- 87 S6 Regional downscaling to improve climate predictions in Sub-Saharan Africa - ClimAfrica  
**Christopher Lennard**, University of Cape Town
- 88 S6 Advantages of using composite analysis for predicting seasonal rainfall in the Andean and Caribbean natural regions of Colombia by impact of ENSO phenomenon  
**Inés Concepción Sánchez Rodríguez**, Weather & Climate Group-Office of Meteorology Institute of Hydrology, Meteorology and Environmental Studies of Colombia (IDEAM, for acronym in spanish),
- 89 S6 Assessing Vulnerabilities to Regional Climate Change: A Case Study of Tokyo, Japan  
**Yingjiu Bai**, Graduate School of Media and Governance, Keio University, Ikuyo Kaneko, Hikaru Kobayashi, Kazuo Kurihara, Izuru Takayabu, Hidetaka Sasaki and Akihiko Murata
- 91 S6 Evaluating the utility of IPCC AR4 GCMs for watershed application in South Korea  
**Thanh Le**, Dept. of Geology, Lund University, Deg-Hyo Bae
- 93 S6 Rainfall variability over West Africa from global and regional models from seasonal to decadal timescales with multi-model approaches  
**Coumba Niang**, LPAO-SF/ESP/Dakar C. A. D. University
- 95 S6 Marine records of the coast of Africa : a case of mechanisms and consequences of past and present climate changes over West Africa coast and its effect on adaptation.  
**Okuku Ediang**, Nigerian Meteorological Agency, Ediang Aniekam Archibong

		Monday	Tuesday	Wednesday	Thursday	
	Registration + Coffee	Bus at 0730	Bus at 0810	Bus at 0800	Bus at 0800	
0840	0840-0850	Introduction	2.7 Susanna Corti	<b>S4 – 4.1 Francisco Doblas-Reyes</b>	<b>S6 – 6.1 Laurent Dubus</b>	
	0850-0900					
	0900-0910	<b>S1 – 1.1 G. Branstator</b>	2.8 Wilco Hazeleger	4.2 Jeff Knight		
	0910-0920					
	0920-0930		2.9 Haiyan Teng	4.3 Edwin Schneider		
	0930-0940	1.2 George Boer	2.10 Ed Hawkins	4.4 Bin Wang	6.3 Jean-Pierre Céron	
	0940-0950	1.3 Didier Swingedouw	2.11 Emilia Sanchez-Gomez	4.5 Javier Garcia-Serrano	6.4 Xing Yuan	
	0950-1000				6.5 SHM Fakhruddin	
	1000-1010					
1000	1010-1020	1.4 Stephen Yeager				
	1020-1030	P1 Posters + Coffee Break	P1 Posters + Coffee Break	P2 Posters + Coffee Break	P2 Posters + Coffee Break	
	1030-1110					
	1110-1120	1.5 Rosie Eade	<b>S3 – 3.1 Tim Stockdale</b>	4.6 Rym Msadek	6.6 Shourong Wang	
	1120-1130	1.6 Virginie Guemas				
	1130-1140	1.7 Hervé Douville	3.2 Adam Scaife	4.7 Daniela Matei	6.7 Hendrik Feldmann	
	1140-1150		3.3 Michel Déqué	4.8 Jon Robson	6.8 Christopher Lennard	
	1150-1200		3.4 Isabel Andreu-Burillo	4.9 Leon Hermanson	6.9 Arthur Greene	
1200	1200-1210	1.8 Kamoru A. Lawal	P1 Posters – Lunch Break	P2 Posters – Lunch Break	P2 Posters – Lunch Break	
	1210-1220					
	1220-1230					
	1230-1240	P1 Posters – Lunch Break	P1 Posters – Lunch Break	P2 Posters – Lunch Break	<b>S7 - George Boer</b>	
	1240-1400					
	1400-1410	1.9 Torben Koenigk	3.5 Yoo-Geun Ham	4.10 Louis-Philippe Caron	Sources and levels of predictability A. Scaife/G. Branstator	
	1410-1420	1.10 Jonathan Day	3.6 Daniela Domeisen	4.11 Klaus Wyser		
	1420-1430					
	1430-1440					
1400	1440-1450	<b>S2 – 2.1 Oscar Alves</b>	3.7 Swadhin Behera	<b>S5 – 5.1 Doug Smith</b>	Seasonal-interannual forecast systems & results M. Deque/T. Stockdale	
	1450-1500					
	1500-1510	2.2 Zhengyu Liu	3.8 Emily Becker	5.2 Antje Weisheimer		
	1510-1520					
	1520-1530		P1 Posters + Coffee Break			
	1530-1540	P1 Posters + Coffee Break	P1 Posters + Coffee Break	P2 Posters + Coffee Break	Decadal forecast systems and results C. Cassou/F. Doblas-Reyes	
	1540-1150					
	1550-1600					
	1600-1610	2.3 François Counillon	3.9 Stefano Materia	5.3 Sophie Stolzenberger		
1600	1610-1620	2.4 Bohua Huang	3.10 Yvan Orsolini	5.4 Bert Van Schaeybroeck	Forecast verification, calibration and combination C. Coelho/D. Smith	
	1620-1630					
	1630-1640	2.5 Gokhan Danabasoglu	3.11 Matthieu Chevallier	5.5 Ed Hawkins		
	1640-1650					
	1650-1700		3.12 Ben Kirtman	5.6 Caio Coelho		
	1700-1710	2.6 Camille Marini	<b>Bus at 1730</b>	<b>Bus at 1730</b>	Targeted predictions, downscaling and appl. H. Douville/L. Dubus	
	1710-1720					
	1720-1730	Icebreaker				
	1730-1900	<b>Bus at 1900</b>	Gala Dinner			
	2000-2300					