

Science Program

PL=Plenary, PA=Panel, PS=Parallel Session, SPL=Science Panel

Date	Time	Session Code	Topic	Presenter	Title
<b>*Bold denotes Chair of Session</b>					
<b>Saturday, August 16, 2014</b>					
	18:00 - 19:30	<b>PL-100-01</b>	<b>WWOSC Opening Ceremony and Joint Plenary</b>	Melvyn A. Shapiro	Earth-system Research, Prediction and Services 21st Century
	19:30 - 21:30		<b>Welcome Reception in the Exhibit Hall</b>		
<b>Sunday, August 17, 2014</b>					
	8:30 - 10:00	<b>PL-100-02</b>	<b>WWOSC Joint Plenary</b>	Jean-Noël Thépaut	Advances and prospects in assimilation of weather observations
	10:30 - 12:00	<b>PS-101</b>	<b>ISS - Land-Atmosphere interactions and water cycle</b>	Paul Dirmeyer	
				Vincent Fortin	Water cycle prediction at the regional scale
				Paul Dirmeyer	Modeling land-atmosphere feedbacks over North America
				Jason Otkin	Drought early warning
				Ahmed Tawfik	Daily local coupling and predicting convective initiation
	10:30 - 12:00	<b>PS-102</b>	<b>NPE - Cross-cutting research on verification techniques</b>	Beth Ebert	
				Barbara Brown	User-focused verification
				Beth Ebert	Object-based spatial verification
				Ric Crocker	Verification of weather regime forecasts.
	10:30 - 12:00	<b>PS-103</b>	<b>ODA - Data assimilation methodology and diagnostic tools</b>	<b>Takemasa Miyoshi</b>	
				Andrew Lorenc	Can ensemble-variational assimilation match 4DVar?
				Craig Schwartz	Convection-permitting forecasts initialized with limited-area data assimilation systems
				Mark Buehner	Implementation of 4D ensemble-variational data assimilation
				Jean-Francois Caron	An EnVar-based data assimilation scheme for CMC's RDPS
	10:30 - 12:00	<b>PS-104</b>	<b>ODA - THORPEX field campaigns</b>	Suzanne Gray	
				Patrick Harr	THORPEX Pacific Asian Regional Campaign: Objectives and Results
				Suzanne Gray	Distinguishing the cold conveyor belt and sting jet
				Ian Renfrew	The Greenland Flow Distortion Experiment: Forecast sensitivity
				Véronique Ducrocq	First results from the HyMeX-SOP1 field campaign
	10:30 - 12:00	<b>PS-105</b>	<b>ODA - New technologies and observation instrumentation innovations: from urban to global scales.</b>	<b>Susanne Crewell</b> <b>Jo Schmetz</b>	
				Mathias Rotach	Atmospheric Observations from Micro- to Meso-Scales
				Junhong (June) Wang	Drosonde Observations for Weather Research
				John Manobianco	GlobalSense: Next Generation, In Situ Observing System
				Onil Bergeron	The Quebec climate monitoring program
	10:30 - 12:00	<b>PS-106</b>	<b>ODA - Observations and their assimilation in global to convective scale models</b>	<b>Ron Gelaro</b> <b>Florence Rabier</b>	
				Florence Rabier	Use of observations in global Numerical Weather Prediction
				Roger Saunders	Assimilating cloud affected infrared radiances
				Fabio Diniz	Observation contribution in the analysis of CPTEC/INPE G3DVAR
				Huaqing Cai	Mixed variational and nudging assimilation for convection-scale nowcasting
	10:30 - 12:00	<b>PS-107</b>	<b>P&amp;P - Atmospheric and oceanic composition (processes, physics, modelling)</b>	Bernhard Vogel	
				Arlindo da Silva	Evaluating the Impact of Aerosols on NWP
				Sarah Lu	Impact of aerosol-radiation feedback on NWP
				Bernhard Vogel	Impact of aerosols on numerical weather prediction
				Seungbum Kim	Physiochemical and optical characteristics of aerosols in Korea
	10:30 - 12:00	<b>PS-108</b>	<b>P&amp;P - Clouds and radiation</b>	Graeme Stephens	
				Graeme Stephens	
				Benjamin Moebis	The influence of CRE on the ITCZ position
				Howard Barker	EarthCARE's Radiative Closure Assessment Programme
				Joshua Ngaina	Aerosol-Cloud-Precipitation Interactions in Deep Convective Clouds
	10:30 - 12:00	<b>PS-109</b>	<b>P&amp;P - Dynamics and predictability of middle latitude weather systems and their higher and lower latitude interactions</b>	Heini Wernli and Susanne Gray	
				Carolyn Reynolds	Tropical-Extratropical interactions illuminated through adjoint studies
				Benjamin Moore	October 2007 extreme weather: Dynamics and forecast uncertainty
				James Doyle	Sensitivity and predictability of severe european extratropical cyclones
				Akira Kuwano-Yoshida	Predictability of explosive cyclogenesis using ensemble reanalysis
	10:30 - 12:00	<b>PS-110</b>	<b>P&amp;P - Tropical cyclones and tropical convection and lower latitude interactions</b>	Johnny Chan and Chris Davis	

Date	Time	Session Code	Topic	Presenter	Title
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<b>Sunday, August 17, 2014</b>					
				Paul Roundy	Interactions between Equatorial Waves and Tropical Cyclones
				Ali Asaadi	Tropical cyclogenesis in a tropical wave critical layer
				Philippe Papin	A Climatology of Central American Gyres
				Benjamin Green	Idealized LES of a TC-like Boundary Layer
10:30 - 12:00	PS-111	<b>PPP - Polar Prediction Project</b>		<b>Peter Bauer</b>	
				Thomas Jung	Overview of the Polar Prediction Project
				Kent Moore	Multi-decadal Mobility of the North Atlantic Oscillation
				Hal Ritchie	Integrated marine Arctic prediction system
				Jiping Liu	projection of ice-free Arctic
10:30 - 12:00	PS-112	<b>WHI - Development of applications in the forecasting process</b>		<b>Dirk Heizenreder</b>	
				Paul Joe	WWRP Olympic Nowcasting Demonstration Projects
				Martin Steinheimer	Seamless prediction of airspace capacity degradation for ATM
				Kyoungmi Lee	Impact of heat stress on agricultural crops
				Ping-wah Li	Envisioned Aviation Weather Services and Challenges to Nowcasting
13:30 - 15:00	SPL-100-01	<b>Science Special Plenary 1</b>		Michel Beland	
				Gilbert Brunet	
				David Parsons	
				Sarah Jones	
16:30 - 18:00	PS-113	<b>ISS - Land-Atmosphere interactions and water cycle</b>		Francois Ancitil, Pedro Viterbo and Christa D. Peters-Lidard	
				Sonia Seneviratne	Land-atmosphere interactions, the water cycle, and climate extremes
				Zhichang Guo	land surface impacts on subseasonal forecasting skill
				Andrew Barrett	Synoptic versus orographic control on stationary convective banding
				Leonhard Gantner	Modelling effects of high-resolution land surface on PBL
16:30 - 18:00	PS-114	<b>ODA - Data assimilation methodology and diagnostic tools</b>		<b>Takemasa Miyoshi</b>	
		ODA - Data assimilation methodology and diagnostic tools		Kayo Ide	Improving the role of static covariances in EnVar
				Catherine Thomas	Improving balance in the NCEP Hybrid Ensemble-Var
				Rahul Mahajan	Outer loops in Hybrid 4DEnVar for NCEP/GFS
				Oscar Martinez-Alvarado	Strategies for new moisture control variables
16:30 - 18:00	PS-115	<b>ODA - THORPEX field campaigns</b>		Patrick Harr and Chun-Chieh Wu	
				David Richardson	The ECMWF Data Targeting System (DTS)
				Martin Weissmann	Highlights of studies based on T-PARC aircraft observations
				Andreas Schaeffler	Airborne observations in the framework of THORPEX
				Chih-Pei Chang	Convection and Rapid Filamentation in Typhoon Sinlaku
16:30 - 18:00	PS-116	<b>ODA - New technologies and observation instrumentation innovations: from urban to global scales.</b>		<b>Susanne Crewell</b>	
				<b>Jo Schmetz</b>	
				Cliff Mass	Smartphone Pressure Observations: A New Mesoscale Revolution
				Gary Wick	Sensing Hazards with Operational Unmanned Technology
				Scott Spuler	Continuous Water Vapor Profiling
				Thomas Yunck	CICERO: A Cellular Observing System
16:30 - 18:00	PS-117	<b>ODA - Observations and their assimilation in global to convective scale models</b>		<b>Ron Gelaro</b>	
				<b>Florence Rabier</b>	
				Wezhong Zheng	Satellite Land Measurements in Numerical Weather Prediction
				Yoshiaki Sato	progress on observation data use in JMA NWP
				Xiwu Zhan	NESDIS SMOPS for NCEP GFS
				Lixin Dong	Downscaling FY3-MWRI Soil Moisture Integrating Visible/Infrared data
16:30 - 18:00	PS-118	<b>P&amp;P - Clouds and radiation</b>		Graeme Stephens	
				Florian Rauser	The HD(CP)2 initiative to improve climate predictability
				Donghai Wang	Cloud microphysical observation and parameterization for Asian
				Jason Milbrandt	Microphysics parameterization by prediction of ice particle properties
				Gregory Thompson	Coupled versus uncoupled cloud physics and radiation
16:30 - 18:00	PS-119	<b>P&amp;P - Dynamics and predictability of middle latitude weather systems and their higher and lower latitude interactions</b>		Heini Wernli	
				Tobias Selz	Upscale error growth in different model settings
				Yongqiang Sun	Predictability and error growth of moist baroclinic waves
				Heini Wernli	Diabatic processes in extratropical cyclones
				Patrick Harr	Extended-Range Predictability and Recurring Tropical Cyclones
16:30 - 18:00	PS-120	<b>P&amp;P - Tropical cyclones and tropical convection</b>		Johnny Chan and Chris Davis	
				Edward Zipser	Conditions for rapid intensification of tropical cyclones
				Robert Rogers	The Rapid Intensification of Hurricane Earl (2010)
				Leon Nguyen	Intensification of a Sheared Tropical Cyclone
				Michael Bell	Eyewall convection during the intensification of Hurricane Rita

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<b>Sunday, August 17, 2014</b>					
	16:30 - 18:00	PS-121	WHI - Development of applications in the forecasting process	Paul Joe and Dirk Heizenreder	
				Walter Dabberdt	Mesoscal Networks and the Third Dimension
				Michael Frech	The new German polarimetric weather radar network
				Orlando Rodriguez	Radar information for weather prediction in Cuba
				Estelle de Coning	Nowcasting in data sparse regions
	18:00 - 19:00	<b>SPL-100-02</b>	<b>Special Science Plenary - Weather and climate: seamless science and prediction?</b>	Gilbert Brunet and Sarah Jones	
<b>Monday, August 18, 2014</b>					
	8:30 - 10:00	<b>PL-100-03</b>	<b>WWOSC Joint Plenary</b>	Alan J. Thorpe	Advances in Global Numerical Weather Prediction
	10:30 - 12:00	<b>PS-122</b>	<b>ISS - Land-Atmosphere interactions and water cycle</b>	Francois Anctil, Pedro Viterbo and Christa D. Peter-Lidard	
				Jean-Christophe Calvet	Terrestrial fluxes: integration of EO data into models
				Changhui Peng	Effect of climate variability on methane emissions
				Daniel Nadeau	Daily evapotranspiration of boreal wetlands
				Linda Schlemmer	Convection and cold-pool dynamics
	10:30 - 12:00	<b>PS-123</b>	<b>ISS - Cryosphere-Ocean-Atmosphere, Coupling &amp; Interaction</b>	Stephen Belcher, Diana Verseghy, Anton Beljaars and Sophie Valcke	
				Baylor Fox-Kemper	From climate to weather: air-sea coupling scales
				Linda Hiron	Air-sea coupling and global weather extremes
				Shan Sun	Global Coupled Atmosphere/Ocean Model
	10:30 - 12:00	<b>PS-124</b>	<b>NPE - Cross-cutting research on verification techniques</b>	Barbara Brown	
				Marion Mittermaier	Verifying km-scale NWP forecasts at observing sites
				Pertti Nurmi	Sochi 2014 Winter Olympics Forecast Verification
				Barbara Casati	Spatial forecast scale-oriented verification against sparse gauge observations
				Edward Tollerud	Choosing the right observations to verify forecasts
	10:30 - 12:00	<b>PS-125</b>	<b>NPE - Environmental Prediction Systems: Global and medium-range aspects</b>	Florence Rabier and Bill Lapenta	
				Martin Charron	Global weather and environmental prediction at Environment Canada
				Linus Magnusson	Performance of forecasts for severe weather
				Fanglin Yang	NCEP GFS Forecast of Hurricane Sandy
				Thomas Hamill	Statistical post-processing of ensemble forecasts: a review
	10:30 - 12:00	<b>PS-126</b>	<b>ODA - Data assimilation methodology and diagnostic tools</b>	<b>Mark Buehner</b>	
				Pieter Houtekamer	Accounting for correlated observation errors in an EnKF
				Maria Eugenia Dillon	Sensitivity to model physics in WRF-LETKF System
				Seung-Jong Baek	Environment Canada's Regional Ensemble Kalman Filter
				Aaron Johnson	GSI-based EnKF and 3DVar for multi-scale data assimilation
	10:30 - 12:00	<b>PS-127</b>	<b>ODA - New technologies and observation instrumentation innovations: from urban to global scales.</b>	<b>Louis Garand</b>	
				David Turner	Ground-based Infrared Spectrometer Thermodynamic Profiling Network Vision
				Anne Hirsikko	European ceilometer and Doppler lidar network
				Volker Lehmann	Operational ground-based remote sensing of wind
				Allan Howard	A system for monitoring in-situ soil moisture.
	10:30 - 12:00	<b>PS-128</b>	<b>ODA - Observations and their assimilation in global to convective scale models</b>	Roger Saunders and Ron Gelaro	
				Dale Barker	Convective-Scale Data Assimilation
				Peter Steinle	ACCESS Convective Scale Data Assimilation
				Ludovic Auger	Various Strategies in AROME Assimilation Frequency
				Kazuo Saito	Super high-resolution mesoscale NWP with the K-computer
	10:30 - 12:00	<b>PS-129</b>	<b>P&amp;P - Atmospheric and oceanic composition (processes, physics, modelling)</b>	Alexander Baklanov	
				Alexander Baklanov	Coupled meteorology-chemistry models for NWP, AQ and Climate
				Paul Makar	Weather / Air Pollution Feedbacks Using GEM-MACH
				Brian Eder	Evaluation of meteorological model used in AQMEII PhaseII
				Ralf Wolke	Regional Modelling of MEA from industrial processes
	10:30 - 12:00	<b>PS-130</b>	<b>P&amp;P - Dynamics and predictability of middle latitude weather systems and their higher and lower latitude interactions</b>	Heini Wernli and Susanne Gray	
				Sarah Jones	Influence of tropical cyclones on mid-latitude predictability
				Julia Keller	Sensitivity of downstream impact to transitioning TC
				Michael Riemer	Tropical cyclone – Rossby wave train interaction
				Lisa-Ann Quandt	Influence of Extratropical Transition on Rossby Wave Breaking

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10:30 - 12:00	PS-131	<b>P&amp;P - Tropical cyclones and tropical convection</b>		<b>Chris Davis</b>	
				DAVIS	Eyewall convection during the intensification of Hurricane Rita
				Chun-Chieh Wu	Dynamics of secondary eyewall formation in tropical cyclones
				Konstantinos Menelaou	Wave-mean flow interaction and hurricane intensification
				Daniel Stern	Vortices in the eyewall boundary layer of TCs
10:30 - 12:00	PS-132	<b>PPP - Polar Prediction Project</b>		<b>Jonny Day</b>	
				Marika Holland	Sea ice predictability
				Andrew Elvidge	What causes foehn warming?
				Stephan Juricke	Stochastic sea ice parameterization and potential polar predictability
				Annick Terpstra	The dynamics of polar lows in reverse shear
10:30 - 12:00	PS-133	<b>S2S - Subseasonal to Seasonal (S2S) Prediction Project</b>		Frederic Vitart and Andrew Robertson	
				Gilbert Brunet	Challenges in sub-seasonal to seasonal predictions
				Kristina Fröhlich	Seasonal predictability from El Niño and stratospheric variability
				Hyemi Kim	MJO prediction
				Cristiana Stan	MJO hindcasts with the Super-parameterized CCSM4
13:30 - 15:00	PS-134	<b>NPE - Environmental Prediction Systems: Global and medium-range aspects</b>		Frederic Vitart	
				Frederic Vitart	The ECMWF coupled Ensemble
				Andy Brown	A new dynamical core for the Unified Model
				Erland Källén	ECMWF skill improvements
				Rashid Akmaev	First Whole Atmosphere Model (WAM) medium-range forecasts
13:30 - 15:00	PS-135	<b>ODA - Data assimilation methodology and diagnostic tools</b>		<b>Mark Buehner</b>	
				Craig Bishop	Data assimilation for hydrometeors using the gig filter
				Juan Ruiz	Parameter estimation in the presence of model error
				Jelena Bojarova	4-Dimensional Ensemble Variational data assimilation for LAM
				Luke Madaus	Short-term ensemble forecast adjustment with data assimilation
13:30 - 15:00	PS-136	<b>ODA - Observations and assimilation of atmospheric constituents</b>		<b>Vincent-Henri Peuch</b>	
				Pawan Bhattia	Measurement of Atmospheric Constituents from Space
				Daniel Mbithi	Assimilation of aerosols over the East African region
				Salman Tariq	Variability in aerosol optical depth over mega-city Lahore
13:30 - 15:00	PS-137	<b>ODA - Observations and their assimilation in global to convective scale models</b>		<b>Takemasa Miyoshi, Roger Saunders, Peter Steinle</b>	
				Takemasa Miyoshi	Japanese Big Data Assimilation activities
				Marion Mittermaier	How temporally representative are synoptic observations?
				Nadia Fourrie	Presentation of the AROME-WMED NWP model
				Xuguang Wang	Improving hurricane prediction using hybrid data assimilation method
13:30 - 15:00	PS-138	<b>P&amp;P - Atmospheric and oceanic composition (processes, physics, modelling)</b>		Véronique Bouchet, Bernhard Vogel and Alexander Baklanov	
				Jean de Grandpre	Predictability study using the EC CDA System
				Stephanie Fiedler	Meteorological processes important for North African dust emission
				Seungbum Kim	Physiochemical and optical characteristics of aerosols in Korea
				Mayra Oyola	Upper-level dynamics, dust storm cyclogenesis and STE
13:30 - 15:00	PS-139	<b>P&amp;P - Dynamics and predictability of middle latitude weather systems and their higher and lower latitude interactions</b>		Heini Wernli and Susanne Gray	
				Franziska Gierth	RWT dynamics in a quantitative PV-O framework
				Gabriel Wolf	Investigating Rossby wave-trains via wave activity flux diagnostic
				Richard Moore	Rosby Wave Train Triggering
				Paraskevi Giannakaki	Forecast errors of Rossby waveguides
13:30 - 15:00	PS-140	<b>P&amp;P - Tropical cyclones and tropical convection</b>		Johnny Chan and Chris Davis	
				Fuqing Zhang	Predictability and data assimilation of tropical cyclones
				Gay Jane Perez	WRF sensitivity studies on Haiyan over the Philippines
				Kieran Bhatia	Predicting tropical cyclone intensity forecast error
				Rosimar Rios-Berrios	Ensemble forecasts to investigate tropical cyclone intensity
13:30 - 15:00	PS-141	<b>PPP - Polar Prediction Project</b>		<b>Marika Holland</b>	
				David Bromwich	AMPS
				Gert König-Langlo	DROMLAN weather service
				Bjoern Hendrik Fock	Prediction of Arctic sea ice for ship routing
				Christopher Riedel	Data Assimilation in a mesoscale model during CONCORDIASI(2010)

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<b>Monday, August 18, 2014</b>					
13:30 - 15:00	PS-142	<b>S2S - Subseasonal to Seasonal (S2S) Prediction Project</b>		Frederic Vitart and Andrew Robertson Paul Kushner Jessie Carman Om Tripathi Bin Guan	Stationary Wave Driving and S2S Prediction Towards a U.S. National Earth System Prediction Capability SSW predictability and surface forecast Atmospheric rivers and large-scale modes
13:30 - 15:00	PS-143	<b>WHI - Development of applications in the forecasting process</b>		<b>Timothy Hewson</b> Laurence Wilson Klaus Knuepfer Lars Wiegand Tamas Hirsch	Statistical Interpretation of Model Output - Model-user link Future role of statistical postprocessing in weather forecasting Post-processing methods for probabilistic convection forecasts ModelMIX for AutoWARN
16:30 - 18:00	PS-144	<b>ISS - Cryosphere-Ocean-Atmosphere, Coupling &amp; Interaction</b>		Stephen Belcher, Diana Verseghy, Anton Beljaars and Sophie Valcke Nicholas Klingaman Ophelie Thevenot Sarah Dyck Ryan Muncaster	Well-resolved air-sea coupling reduces tropical precipitation biases Sensitivity of a HPE to the sea state Great Lakes Coupled Forecasting System Global coupled atmosphere-ice-ocean forecasts
16:30 - 18:00	PS-146	<b>ODA - Observations and assimilation of atmospheric constituents</b>		<b>Arlindo daSilva</b> Arthur Mizzi Doug Degenstein Sergey Skachko Swagata Payra	EnKF Assimilation of MOPITT CO Retrievals with WRF/Chem-DART ALISS BASCOE-EnKF using a stratospheric CTM Assimilation of water vapour by CTM in UTLS
16:30 - 18:00	PS-147	<b>ODA - Observations and their assimilation in global to convective scale models</b>		<b>Takemasa Miyoshi, Roger Saunders, Peter Steinle</b> Yuefei Zeng Weiguang Chang Theresa Bick Mengbin Zhu	Efficient Radar Forward Operator within the COSMO-model Enhancing information transfer from observations to unobserved variables Assimilation of radar reflectivity with the LETKF Accelerated Two-Dimensional Bending Angle Data Assimilation
16:30 - 18:00	PS-148	<b>P&amp;P - Dynamics and predictability of middle latitude weather systems and their higher and lower latitude interactions</b>		Heini Wernli and Susanne Gray  Gwendal Riviere Melvyn A. Shapiro Hanna Joos Amanda Sheffield	Eddy kinetic-energy redistribution within extratropical windstorms Historical perspective - lifecycle of extratropical cyclones Microphysical processes in a WCB:IFS and COSMO simulations The Role of Post-Cold Frontal Cumulus Clouds
16:30 - 18:00	PS-149	<b>P&amp;P - Tropical cyclones and tropical convection</b>		Johnny Chan and Chris Davis  John McBride Thomas Galarneau Alicia Bentley Hancheng Lu	Tropical cyclones and the surrounding atmosphere and ocean. Global climatology of vertical shear near tropical disturbances Upper-Tropospheric Precursors Associated with Subtropical Cyclone Formation Tropical Cyclone Formation: Findings from PREDICT
16:30 - 18:00	PS-150	<b>PPP - Polar Prediction Project</b>		<b>Dave Bromwich</b> Peter Bauer Gregory Smith Phillip Reid Qinghua Yang	Gobal NWP model performance in polar areas GIOPS sea ice forecast verification High-resolution atmospheric modelling over Australian Antarctic bases SMOS sea ice thickness assimilation
16:30 - 18:00	PS-151	<b>S2S - Subseasonal to Seasonal (S2S) Prediction Project</b>		Frederic Vitart and Andrew Robertson Matthew Newman Benjamin Cash Yuhei Takaya Malaquias Peña	Diagnosing subseasonal predictability of tropical anomalies Project Minerva: Towards seamless high-resolution climate prediction Sub-seasonal prediction with JMA coupled model Ensemble generation methods and skill on subseasonal predictions
16:30 - 18:00	PS-152	<b>WHI - Development of applications in the forecasting process</b>		<b>Estelle de Coning</b> Chris Ferro Knut Helge Midtbo Tobias Pardowitz Jeff Lundgren	What makes a good ensemble forecast? Forecasting of turbulence for airports in Norway Predictability of winter storm damages Snow Accretion Forecasting for Cable Stay Bridges
16:30 - 18:00	PS-153	<b>NPE - Cross-cutting research on verification techniques</b>		Beth Ebert and Barbara Brown  Andrew Bennett Munehiko Yamaguchi Azmat Khan Martin Goeber	Met Office post-processing of operational NWP forecasts Observation-based ensemble spread-error relationship Drought predictability for southern Pakistan by MME Verification of the linguistic uncertainty of warning uncertainty

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<b>Tuesday, August 19, 2014</b>					
8:30 - 10:00	PL-100-04	WWOSC Joint Plenary		Philippe Bougeault	Recent progress of meso-scale NWP and environmental predictions
10:30 - 12:00	PS-154	ISS - Land-Atmosphere interactions and water cycle		Francois Ancil, Pedro Viterbo and Christa D. Peter-Lidard Leo Separovic Gianpaolo Balsamo Joshua Hacker	High-Resolution Surface Analysis Inland water bodies and coastal areas in NWP Ensemble data assimilation for surface-layer errors
10:30 - 12:00	PS-155	ISS - Cryosphere-Ocean-Atmosphere, Coupling & Interaction		Stephen Belcher, Diana Versegny and Anton Beljaars Øyvind Sætra Juan Restrepo Romain Rainaud Lydia Gates	The Role of Waves in Air-Sea Interaction stochastic parametrization of wave breaking Air-sea exchanges from the AROME-WMED model Regional coupled atmosphere ocean modelling North Sea region
10:30 - 12:00	PS-156	SZS - Subseasonal to Seasonal (SZS) Prediction Project		<b>Andrew Robertson</b>  Jon Gottschalck Michael Tippett Christophe Lavaysse Andrew Robertson	Subseasonal to Seasonal Prediction: CPC Operational Outlooks Toward seamless prediction of severe weather activity Monthly drought forecasting using the ECMWF Ensemble system Sub-seasonal to Seasonal Prediction for Dynamic Cropping Calendars
10:30 - 12:00	PS-157	NPE - Environmental Prediction Systems: Mid latitude regional aspects		Virginie Marécal and Jeannette Onvlee Stéphane Bélair Huw Lewis Curtis Alexander Kengo Matsubayashi	Numerical Environmental Prediction, Forecasting of the Earth System UK Environmental Prediction The High-Resolution Rapid Refresh (HRRR) high resolution operational model at JMA
10:30 - 12:00	PS-158	ODA - Data assimilation methodology and diagnostic tools		Mark Buehner and Takemasa Miyoshi Nedjeljka Zagar Rebecca Reid Vassilios Vervatis Dominik Jacques	Model view of balance and predictability Cost vs. Impact of Met Office Observing Systems A coastal EnOI data assimilative twin experiment Neglecting the correlation of errors in data assimilation
10:30 - 12:00	PS-159	ODA - Observations and assimilation of atmospheric constituents		<b>Pablo Saide</b>  Vincent-Henri Peuch Emanuele Emili Alain Robichaud Benjamin Gaubert	Assimilation of atmospheric constituents: highlights from MACC-II/Copernicus Data assimilation of trace gases: impact on forecasts Assimilation of surface chemical species observations into GEM-MACH Global CO data assimilation
10:30 - 12:00	PS-160	ODA - New technologies and observation instrumentation innovations: from urban to global scales.		<b>Dave Turner</b>  Susanne Crewell Frederic Fabry Maureen Donovan Jean-Pierre Blanchet	Thermodynamic profiling by ground-based microwave radiometer network Volume Scanning Microwave Radiometry for Convection Forecasting Next Generation Airborne Polarimetric Doppler Weather Radar New FarIR Satellite for Monitoring the Polar Vortex
13:30 - 15:00	PS-161	P&P - Tropical cyclones and tropical convection		<b>Johnny Chan</b> <b>Chris Davis</b> Kerry Emanuel Benjamin Schenkel Timothy Merlis Chia-Ying Lee	Radiative-Convective Instability and Tropical Weather and Climate Prediction Role of tropical cyclones in cross-equatorial energy transport The sensitivity of hurricane frequency to ITCZ changes TC Intensity Probability Prediction in a Changing Climate
10:30 - 12:00	PS-162	P&P - Atmospheric and oceanic composition (processes, physics and modelling)		Véronique Bouchet, Bernhard Vogel and Alexander Baklanov  Vincent Huijnen Muhammad Zeeshan Shahid Carlos Ordóñez Shiliang Wu	Chemistry in the ECMWF Integrated Forecast System Simulation over Pakistan using the WRF-Chem Model Impact of emissions on air quality modelling Extreme Air Pollution Meteorology and Air Quality
10:30 - 12:00	PS-163	P&P - Continental convective systems		David Parsons and David Stensrud Isztar Zawadzki Kathrin Wapler Madalina Surcel Aida Diongue-Niang	Empirical studies of predictability at convective scales Synergetic use of multi-sensor data for nowcasting The decorrelation scale for precipitation forecasts The West Africa THORPEX case study
10:30 - 12:00	PS-164	PPP - Polar Prediction Project		<b>Stephan Juricke</b> Mark Serreze Wanqiu Wang Jonathan Day Matthieu Chevallier	The New Arctic: Challenges, Opportunities and Concerns Issues in dynamical seasonal sea ice prediction Will sea ice thickness initialisation improve forecast skill? Seasonal forecasting of the Arctic ocean at CNRM-GAME

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<b>*Bold denotes Chair of Session</b>					
<b>Tuesday, August 19, 2014</b>					
10:30 - 12:00	PS-165	WHI - Development of applications in the forecasting process	<b>Lans Rothfusz</b>	Timothy Hewson Helen Tittley Steven Young Lisa Alexander	Severe weather prediction at ECMWF Ensemble storm surge forecasting application (UK) A Solar and Wind Integrated Forecast Tool (SWIFT) Nowcasting (with MAPLE) and stationary precipitation patterns
13:30 - 15:00	PS-166	NPE - Environmental Prediction Systems: Mid latitude regional aspects	Virginie Marécal and Jeannette Onvlee Susanne Theis Dmitry Kiktev Wen Jiang Keith Thompson	The convection-permitting ensemble COSMO-DE-EPS Performance of FROST-2014 forecasting systems: Preliminary assessments Ensemble Prediction of Extratropical Storm Tracks The Marine Environmental Observation, Prediction and Response Network	
13:30 - 15:00	PS-167	ODA - Data assimilation methodology and diagnostic tools	<b>Andrew Lorenc</b>	Eugenia Kalnay Matthias Sommer Cristina Lupu Ji-Sun Kang	Ensemble Forecast Sensitivity to Observations: Proactive Quality Control Observation impact in an ensemble transform Kalman filter Observation impact and observation error covariance retuning EFSO within KIAPS-LETKF
13:30 - 15:00	PS-168	ODA - New technologies and observation instrumentation innovations: from urban to global scales.	<b>Anne Hirsikko</b>	Steven Goodman John Hubbert Zhou Kanghui Rodica Nitu	The GOES-R Geostationary Lightning Mapper (GLM) The Front Range Observational Network Testbed A new technique for lightning location WMO SPICE: Solid precipitation intercomparison experiment
13:30 - 15:00	PS-169	S2S - Subseasonal to Seasonal (S2S) Prediction Project	Frederic Vitart and Andrew Robertson Roberto Buizza Matthew Wheeler Hai Lin Randall Dole	The Forecast Skill Horizon Seamless precipitation prediction skill in a global model Subseasonal variability of North American wintertime temperature Improving Understanding and Predictions of Extreme Events	
13:30 - 15:00	PS-170	P&P - Continental convective systems	David Parsons and David Stensrud Cathy Hohenegger Howard Bluestein Yuchun Zhao Shih-Yu Wang	Convection and mesoscale circulations across model resolutions An observational study of a high-wind event A Study on the Heavy-Rain-Producing Mesoscale Convective System Original of Northwest Flow Severe Weather Outbreak	
13:30 - 15:00	PS-171	P&P - Dynamics & predictability of middle latitude weather systems & their higher and lower latitude interactions	Heini Wernli and Susanne Gray Junhong Wei Neil Hart Samantha Clarke Yun Chen	Gravity Waves in Moist Baroclinic Jet-Front Systems Does mesoscale instability control sting jet variability? Multi-scale simulations of a mesoscale convective system Torrential Rain on July 21, 2012 Beijing	
13:30 - 15:00	PS-172	P&P - Stochastic forcing, Ensemble prediction systems and TIGGE	Richard Swinbank Tim Palmer Antje Weisheimer Qiang Deng Richard Swinbank	Minimising RMS error or Maximising Forecast Reliability? Impact of stochastic parametrisations on ECMWF's coupled model MJO in GCM with a Stochastic Multicloud Parameterization Stochastic Physics Developments for MOGREPS	
10:30 - 12:00	PS-173	ODA - Observations and their assimilation in global to convective scale models	<b>Carla Cardinali</b> <b>Dale Barker</b> Carla Cardinali Tong Zhu Glen Romine Leonhard Scheck	Observation leverage and subsequent forecast impact Impact of Geostationary Satellite Data on Sandy Forecast Targeted observations to improve forecasts of convection Assimilation of visible and near-infrared satellite observations	
13:30 - 15:00	PS-174	WHI - Development of applications in the forecasting process	<b>Ping-wah Li</b>	Robert Hoffmann David Sills Marc Verville Marc Rautenhaus	The future of forecaster decision making iCAST: Interactive Severe Thunderstorm Prediction and Alerting Integrated Nowcasting System Interactive 3D ensemble visualization for weather forecasting
16:30 - 18:00	PS-175	NPE - Environmental Prediction Systems: Mid latitude regional aspects	Virginie Marécal Virginie Marécal Didier Davignon Ivanka Stajner Akane Kamada	MACC-II European ensemble air quality forecasting system Air Quality Forecasting in Canada: Status, Performance, Developments NOAA's Air Quality Predictions for the United States JMA's Chemical Transport Model over Northeast Asia Area	

Date	Time	Session Code	Topic	Presenter	Title
<b>*Bold denotes Chair of Session</b>					
<b>Tuesday, August 19, 2014</b>					
16:30 - 18:00	PS-176	ODA - Data assimilation methodology and diagnostic tools		<b>Craig Bishop</b>	
				Jeffrey Anderson	Correction of Regression Sampling Errors in Ensemble Filters
				Roland Potthast	New Analytical Methods for Adaptive Localization
				Benjamin Menetrier	Linear filtering of sample covariances for data assimilation
				Richard Ménard	The Desroziers' diagnostics and lagged-innovations
16:30 - 18:00	PS-177	WHI - Development of applications in the forecasting process		<b>Paul Joe</b> <b>Dirk Heizenreder</b>	
				Hans-Joachim Koppert	Designing semi-automatic systems for weather warning operations
				Lans Rothfusz	Forecasting a Continuum of Environmental Threats (FACETS)
				Guido Schroeder	Automated weather warning proposals
16:30 - 18:00	PS-178	ODA - New technologies and observation instrumentation innovations: from urban to global scales.		<b>Chris Velden</b>	
				Peng Zhang	Fengyun meteorological satellites and their application to NWP
				Johannes Schmetz	EUMETSAT's New Satellite Programmes
				William Smith	STORM-The commercial implementation of GIFTS
				Louis Garand	Research and development on satellite radiance assimilation
16:30 - 18:00	PS-179	ODA - Observations and their assimilation in global to convective scale models		<b>Carla Cardinali and Dale Barker</b>	
				Joel Bedard	Near-Surface Wind Data Assimilation: Geo-Statistical Observation Operator Development
				Annika Schomburg	Assimilating satellite cloud information at the convective scale
				Ming Hu	Applying GSI Hybrid for RAP with Regional Ensembles
				Derek Posselt	Data assimilation methods used to diagnose physical processes
16:30 - 18:00	PS-180	P&P - Dynamics & predictability of middle latitude weather systems & their higher and lower latitude interactions		Heini Wernli and Susanne Gray	
				Michael Reeder	Wildfires and Midlatitude Rossby Wave Breaking
				Stan Benjamin	FIM Blocking Experiments for Seasonal and Medium-Range Prediction
				Jana Campa	Moisture supply during an extreme precipitation event
				Luisa Röhner	Heavy precipitation events in the western Mediterranean
16:30 - 18:00	PS-181	P&P - Stochastic forcing, Ensemble prediction systems and TIGGE		Richard Swinbank and Tom Hamill	
				George Craig	Physically-based stochastic parameterisation
				Kirstin Kober	Convective initiation with a stochastic boundary layer parameterisation
				Istvan Szunyogh	Forecast Uncertainty in Global Model Forecasts
				Florian Harnisch	Initial conditions from a convective-scale LETKF
16:30 - 18:00	PS-182	NPE - Environmental Prediction Systems: Tropical Aspects		Masaki Satoh	
				Toshio Yamagata	New Climate Modes and Their Predictability
				Kunio Yoneyama	Year of the Maritime Continent
				Eric Maloney	Intraseasonal variations in easterly wave energy budgets.
				Masaki Satoh	Numerical examination of tropical disturbances using NICAM
16:30 - 18:00	PS-183	S2S - Subseasonal to Seasonal (S2S) Prediction Project		Frederic Vitart and Andrew Robertson	
				Francisco Doblas-Reyes	Seasonal climate prediction in a climate services context
				Pablo Spennemann	Soil moisture forecasts potential to predict rain anomalies
				Jong-Seong Kug	Improvement of Climate Simulations: An ENSO example
				Nir Krakauer	Toward probabilistic seasonal prediction
18:00 - 19:30		<b>Networking Reception</b>			
<b>Wednesday, August 20, 2014</b>					
8:30 - 10:00	PL-100-05	WWOSC Joint Plenary		Julia Slingo	Toward seamless climate-weather and environmental prediction
10:30 - 12:00	PS-201	ISS - Land-Atmosphere interactions and water cycle		Francois Ancil, Pedro Viterbo and Christa D. Peter-Lidard	
				Ayrton Zadra	Diurnal land/atmosphere Coupling Experiment (DICE)
				Volker Wulfmeyer	Seamless Mesoscale Prediction
				Wilhelm May	On soil moisture-climate feedbacks in the tropics
				Bakr Badawy	Terrestrial carbon fluxes and pools
10:30 - 12:00	PS-202	NPE - Environmental Prediction Systems: Tropical Aspects		Masaki Satoh and Jim Doyle	
				Ryan Torn	The role of uncertainty in TC intensity forecasts
				Martin Baumann	Goal-oriented adaptivity for idealized tropical cyclone scenarios
				William Komaromi	Evaluating the wave-relative predictability of tropical cyclogenesis
				Louis-Philippe Caron	Multi-annual forecasts of Atlantic tropical cyclone activity



Date	Time	Session Code	Topic	Presenter	Title
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<b>Wednesday, August 20, 2014</b>					
10:30 - 12:00	PS-203	<b>NPE - Urban scale environmental prediction systems</b>		Sue Grimmond	
				Sue Grimmond	Integrated services: urban weather, climate and environmental hazards
				Véronique Bouchet	GURME and Megacities
				Rob Cifelli	Advanced Quantitative Precipitation Information Systems for Urban Regions
				Xin Qiu	Transportation air emissions and urban scale air quality
10:30 - 12:00	PS-204	<b>ODA - Data assimilation methodology and diagnostic tools</b>		<b>Craig Bishop</b>	
				Peter Jan van Leeuwen	A unifying framework for hybrid data-assimilation schemes
				Melanie Ades	Particle filter representation of the posterior
				Dacian Daescu	New applications of adjoint-DAS sensitivity tools
				Zoltan Toth	Analysis and Short-Range Forecast Error Variance Estimates
10:30 - 12:00	PS-205	<b>ODA - Observations and assimilation of atmospheric constituents</b>		<b>Mariusz Pagowski</b>	
				Eric Hughes	Incorporating Volcanic Eruptions into Near Real-time Aerosol Forecasts
				Arlindo da Silva	GEOS-5 Aerosol Forecasting and Data Assimilation System
				Pablo Saide	Aerosol optical properties assimilation from LEO/GEO satellites
				Enza Di Tomaso	Data assimilation enhancement of a chemical transport model
10:30 - 12:00	PS-206	<b>P&amp;P - Dynamics &amp; predictability of middle latitude weather systems &amp; their higher and lower latitude interactions</b>		Heini Wernli and Susanne Gray	
				Samuel Lillo	Dynamics of error growth in ECMWF forecast busts
				Christian Grams	Central European floods in June 2013
				Yafei Wang	OKJ circulation pattern and 721 heavy rainfall
				Yixuan Shou	Tropopause Folding and the Middle-Latitude Disastrous Weather
10:30 - 12:00	PS-207	<b>P&amp;P - Stochastic forcing, Ensemble prediction systems and TIGGE</b>		Richard Swinbank and Tom Hamill	
				Simon Lang	Ensemble forecasts with an ensemble of data assimilations
				Pierrick Cébron	PEARP: issues in the initial conditions error sampling
				Travis Elless	A Climatology of ECMWF Ensemble Hurricane Track Variability
				Jieshun Zhu	ENSO prediction using MAE with CFSv2
10:30 - 12:00	PS-208	<b>P&amp;P - Sub-grid parameterizations for the atmosphere and ocean</b>		Christian Jakob, Martin Miller and Andy Brown	
				Anton Beljaars	Sub-grid parameterization in global atmospheric models
				Lorenzo Tomassini	NWP model hindcasts of a cold air outbreak
				Huan Guo	A PDF-based sub-grid parameterization in AM3: AM3-CLUBB
				Francois Bouyssel	Seamless development of physical parameterizations
10:30 - 12:00	PS-209	<b>P&amp;P - Tropical cyclones and tropical convection</b>		Johnny Chan	
				Lynn Shay	Air-Sea Interactions in Tropical Cyclones
				I-I Lin	Supertyphoon Haiyan (2013) and ocean subsurface warming
				Johnny Chan	Land effects on tropical cyclone track and structure
				Jenni Evans	Operational ensemble forecasts for hurricane Sandy (2013)
10:30 - 12:00	PS-210	<b>S2S - Subseasonal to Seasonal (S2S) Prediction Project and P&amp;P - Year of Tropical Convection (YOTC)</b>		Duane Waliser	
				Duane Waliser	MJO Impact on Global Ocean Surface Wave Heights
				Charlotte DeMott	Air-Sea Interaction and the MJO
				Xianan Jiang	Vertical Structure of the MJO in GCMS
				Tomoki Miyakawa	Multiscale interactions within Madden-Julian Oscillations
10:30 - 12:00	PS-211	<b>P&amp;P - Continental convective systems</b>		David Parsons and David Stensrud	
				Richard Rotunno	Mesoscale Modeling at High Resolution
				Richard Hodur	Effect of Parameterizations on Rainfall in Poland
				Andrey Martynov	Assessment of simulated hailstorms over Switzerland.
				John Marsham	Moist convection in the West African Monsoon
10:30 - 12:00	PS-212	<b>WHI - Improved understanding of and techniques for decision making</b>		Pertti Nurmi and Kevin Petty	
				Louis Uccellini	Building a Weather-Ready Nation
				LI LI	Coastal storm surge flooding impact
				J. Wayne Boulton	Assessing Risks to Infrastructure Projects Using WRF
				Mihail Daradur	Drought decision support tools in a changing climate
13:30 - 15:00	PS-213	<b>ISS - Land-Atmosphere interactions and water cycle</b>		Diana Versegny	
				Camille Garnaud	Impact of dynamic vegetation on simulated climate
				Diana Versegny	CLASS application in western Africa
				Hyo-Jong Song	Forecast uncertainty under different land-atmosphere coupling regimes
				Anmin Duan	Trends in summer rainfall over China

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<b>Wednesday, August 20, 2014</b>					
13:30 - 15:00	PS-214	<b>P&amp;P - Tropical cyclones and tropical convection</b>		Johnny Chan and Chris Davis	
				Suzana Camargo	Variability of tropical cyclone activity
				Masuo Nakano	Predictability of ISV and TC genesis in WNP
				Dr. Chang-Hoi	Seasonal cyclone forecast using track-pattern model
				Xiao Feng	Interannual variations of September-October rainfall in Hainan
13:30 - 15:00	PS-215	<b>NPE - Urban scale environmental prediction systems</b>		Greg Carmichael, Sue Grimmond and Humphrey Lean	
				Valery Masson	Adapting cities to climate change
				Rodrigo Delgado	Performance evaluation of a PM10/PM2.5 model for Santiago
				Rafiq Hamdi	Coupling TEB to an NWP model
13:30 - 15:00	PS-216	<b>ODA - Observations and assimilation of atmospheric constituents</b>		<b>Richard Menard</b>	
				Jerome Barre	Chemistry-Dynamics data assimilation
				Mariusz Pagowski	Do better aerosol forecasts improve weather forecasts?
				Jianyu Liang	impacts of Saharan Air Layer on hurricane development
				Felix Carrasco	Experimenting with LETKF in a toy dispersion model
13:30 - 15:00	PS-218	<b>P&amp;P - Dynamics &amp; predictability of middle latitude weather systems &amp; their higher and lower latitude interactions</b>		Heini Wernli and Susanne Gray	
				Andrea Schneidereit	Seasonal cycle of Rossby wave breaking and precipitation
				Julian Quinting	Impact of tropical cyclones on Rossby wave packets
				Maxi Boettcher	Diabatic Rossby-Waves
				Shira Raveh-Rubin	Large-scale surface wind extremes in the Mediterranean
13:30 - 15:00	PS-219	<b>P&amp;P - Numerical methods of the atmosphere &amp; ocean (including composition &amp; boundary layer at all latitudes)</b>		<b>Jean Côté</b>	
				Hirofumi Tomita	Cloud resolving model and Large Eddy Simulation
				Michel Desgagne	Canadian NWP models on next generation supercomputers
				Peter Bauer	Scalability Initiative at ECMWF
				Lei Bao	Efficient time integrator for non-hydrostatic atmospheric models
13:30 - 15:00	PS-220	<b>P&amp;P - Stochastic forcing, Ensemble prediction systems and TIGGE</b>		Richard Swinbank and Tom Hamill	
				Marie Boisserie	Predictability of extreme events
				Tiziana Paccagnella	Main characteristics and performance of COSMO-LEPS
				Jeff Beck	Convection-resolving multi-model ensemble over northwestern Europe
				Inger-Lise Frogner	GLAMEPS – a multi-model EPS for short range
13:30 - 15:00	PS-221	<b>P&amp;P - Sub-grid parameterizations for the atmosphere and ocean</b> P&P - Sub-grid parameterizations for the atmosphere and ocean		Christian Jakob, Martin Miller and Andy Brown	
				Gunilla Svensson	Surface friction and the general circulation
				Rachel Honnert	Gray zone of turbulence
				Martin Köhler	Model uncertainty in ICON
				Katrin Scheufele	Resolution dependence of cumulus statistics
13:30 - 15:00	PS-222	<b>P&amp;P - Year of Tropical Convection (YOTC)</b>		Mitch Moncrieff and Duane Waliser	
				Andrew Majda	Theory, Parametrization and Observations
				Samuel Stechmann	Identifying the MJO Skeleton in Observational Data
				Richard Neale	Linkages between the MJO, process-level diagnostics and parameterizations
				Da Yang	Testing the Yang and Ingersoll MJO paradigm
13:30 - 15:00	PS-223	<b>WHI - Improved understanding of and techniques for decision making</b>		Pertti Nurmi and Kevin Petty	
				Ken Mylne	Improved understanding of and techniques for decision-making
				Jack Settelmaier	Using GIS to Bridge NWS Forecast Communication Gaps
				Lysiane Mayoraz	Gale Warning for Swiss Lakes and Regional Aerodromes
				Vahid Rahmani	Extreme Rainfall Events Variability and Runoff Generation
16:30 - 18:00	PS-224	<b>NPE - Environmental Prediction Systems: Tropical Aspects</b>		Masaki Satoh and Jim Doyle	
				Aida Diongue-Niang	Challenges for Numerical Weather Prediction in the Tropics
				Caroline Bain	Forecasting storms over East Africa
				Rory Fitzpatrick	Defining and Predicting the West African Monsoon Onset
				Peter Knippertz	Modeling the meteorology of dust emission
16:30 - 18:00	PS-225	<b>NPE - Urban scale environmental prediction systems</b>		Humphrey Lean	
				Sylvie Leroyer	Urban-scale forecasting system for PanAm
				Humphrey Lean	Modelling London with high resolution Unified Model
				Craig Stroud	Air Quality Prediction System for Toronto
				Tadao Inoue	Multiple Effects of Urban Area on Precipitation

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<b>Wednesday, August 20, 2014</b>					
16:30 - 18:00	PS-226	<b>ODA - Coupled data assimilation and reanalyses</b>		Dick Dee	
				Suranjana Saha	Coupled Data Assimilation and Reanalyses at NCEP
				Kazutoshi Onogi	The JRA-55 Reanalysis
				Dick Dee	ERA-CLIM: Developing reanalyses of the coupled climate system
				Richard Renshaw	Regional reanalysis at the Met Office
16:30 - 18:00	PS-227	<b>WHI - Improved understanding of and techniques for decision making</b>		Paul Davies	
				Masashi Nagata	User-oriented weather information for DRR in Japan
				Paul Davies	Impact and risk of coastal-related hazards
				Wang-chun Woo	An Event-Based Methodology for Verifying Warnings
				Kalyan Chakravarthy Yesoda	Heavy Rainfall Events During Summer Monsoon over India
16:30 - 18:00	PS-228	<b>P&amp;P - Continental convective systems</b>		David Parsons and David Stensrud	
				Kevin Haghi	Identifying and characterizing atmospheric bores during IHOP_2002
				Christoph Kottmeier	Amplification of HIW by Corsica
				Yali Luo	Convection in an extreme rainfall event during SCMREX
16:30 - 18:00	PS-229	<b>P&amp;P - Dynamics &amp; predictability of middle latitude weather systems &amp; their higher and lower latitude interactions</b>		Heini Wernli and Susanne Gray	
				Helen Dacre	How do atmospheric rivers form?
				John Gyakum	A climatology of extreme cyclone growth processes
				Olivia Martius	Sub-seasonal clustering of extreme precipitation events
				Thomas Spengler	Novel Measure for Baroclinicity and its Tendency
16:30 - 18:00	PS-230	<b>P&amp;P - Numerical methods of the atmosphere &amp; ocean (including composition &amp; boundary layer at all latitudes)</b>		<b>Pierre Benard</b>	
				Christiane Jablonowski	Tropical Cyclone Modeling with Variable-Resolution CAM-SE
				Rainer Bleck	Global ocean-atmosphere modeling on unstructured meshes
				Rostislav Fadeev	Non-hydrostatic dynamical core for the Russian SL-AV model
				Nicholas Szapiro	Arctic tropopause in MPAS-A, WRF, and GFS
16:30 - 18:00	PS-231	<b>P&amp;P - Stochastic forcing, Ensemble prediction systems and TIGGE</b>		Richard Swinbank and Tom Hamill	
				Thordis Thorarinsdottir	Ensemble copula coupling
				Kira Feldmann	Statistical Postprocessing for TIGGE
				Laure Raynaud	Bayesian weighting for lagged ensemble forecasting
				Normand Gagnon	Are we still lacking spread in ensemble forecasts?
16:30 - 18:00	PS-232	<b>P&amp;P - Sub-grid parameterizations for the atmosphere and ocean</b>		Christain Jakob, Martin Miller and Andy Brown	
				William Large	Ocean Model Parameterizations Relevant to Weather Prediction
				Ron McTaggart-Cowan	Parameterizing Richardson Number Hysteresis in the Boundary Layer
				Steven Krueger	An Economical PDF-Based Turbulence Closure Model
				Radmila Brozkova	Future challenges in high resolution operational parameterizations
16:30 - 18:00	PS-233	<b>P&amp;P - Year of Tropical Convection (YOTC)</b>		Mitch Moncrieff and Duane Waliser	
				Steven Woolnough	Diabatic Process in the Madden-Julian Oscillation
				Michael Pritchard	The superparameterized MJO's sensitivity to extreme climate variation.
				Daehyun Kim	Process-oriented MJO Simulation Diagnostic
				Sharon Sessions	Gross moist stability in weak temperature gradient simulations
16:30 - 18:00	PS-234	<b>ISS - Cryosphere-Ocean-Atmosphere, Coupling &amp; Interaction</b>		Sophie Valcke	
				Sophie Valcke	Technologies and algorithms for Earth System coupled model
				Michael Ek	Coupling sub-systems at NCEP
				Christa Peters-Lidard	Integrated Modeling of Aerosol, Cloud, Precipitation and Land
<b>Thursday, August 21, 2014</b>					
8:30 - 10:00	PL-100-06	<b>WWOSC Joint Plenary</b>		Al Kellie	High Performance Computing (HPC)
10:30 - 12:00	PS-237	<b>ISS - Cryosphere and stable atmospheric boundary layers</b>		Stephen Belcher, Diana Versegny and Anton Beljaars	
				Gunilla Svensson	Boundary layers and clouds in polar regions
				Eric Bazile	GABLS4: An intercomparison case to study the SBL
				Linette Boisvert	Improvements of moisture flux estimates in the Arctic
				Peter Taylor	Stable boundary layer Obukhov length

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<b>Thursday, August 21, 2014</b>					
10:30 - 12:00	PS-238	<b>NPE - Environmental Prediction Systems: Tropical Aspects</b>		Masaki Satoh and Jim Doyle	
				Vijay Tallapragada Sundararaman Gopalakrishnan Christina Holt Bo-Wen Shen	Operational HWRF Modeling System: Progress, Advancements and Challenges The Global to Local Scale HWRF system Advancing Microphysics Parameterizations in the HWRF Genesis of Hurricane Sandy in a GMM
10:30 - 12:00	PS-239	<b>NPE - Urban scale environmental prediction systems</b>		Greg Carmichael	
				Greg Carmichael Sam-Erik Walker Lech Gawuc Georg Grell	Aerosol Feedbacks on Urban and Regional Scales Probabilistic forecasting of air quality in Oslo Norway High resolution modelling of PM10 episodes in southern Scale- and aerosol-aware convective parameterization
10:30 - 12:00	PS-240	<b>ODA - Coupled data assimilation and reanalyses</b>		Oscar Alves	
				Patrick Laloyaux Santha Akella Robert Tardif Oscar Alves	The Coupled ECMWF ReAnalysis System Towards Coupled Assimilation via Skin SST analysis Coupled data assimilation strategies Coupled ensemble data assimilation system for seasonal prediction
10:30 - 12:00	PS-241	<b>ODA - Ocean and cryosphere observations and their assimilation</b>		Peter Minnett and David Bromwich	
				Detlef Stammer An Nguyen Thomas Armitage	Arctic Ocean/Sea Ice Reanalysis Sensitivity of Arctic sea-ice to surface atmospheric forcings Arctic sea level from radar altimetry
10:30 - 12:00	PS-242	<b>P&amp;P - Dynamics &amp; predictability of middle latitude weather systems &amp; their higher and lower latitude interactions</b>		Heini Wernli and Susanne Gray	
				Thomas Jung Lukas Papritz Hans Chen Dylan Lusk	High-latitude influences on mid-latitude weather Cold air outbreaks in the South Pacific Predictability of atmospheric response to Arctic sea ice WRF Simulation of TPVs with Changing Sea Ice
10:30 - 12:00	PS-243	<b>P&amp;P - Numerical methods of the atmosphere &amp; ocean (including composition &amp; boundary layer at all latitudes)</b>		<b>Christiane Jablonowski</b>	
				William Collins Andreas Mueller Angel Domínguez Chovert Giovanni Tumolo	Nonhydrostatic adaptive mesh dynamics for multiscale climate models Does high order and AMR improve the efficiency? Implementation of Adaptive Grid Refinement in the ARPS. An accurate efficient numerical framework for adaptive NWP
10:30 - 12:00	PS-244	<b>P&amp;P - Stochastic forcing, Ensemble prediction systems and TIGGE</b>		Richard Swinbank and Tom Hamill	
				Munehiko Yamaguchi Sharanya Majumdar Heather Archambault Philippe Arbogast	Multi-model ensemble forecasts of tropical cyclones using TIGGE Probabilistic Verification of Tropical Cyclogenesis Ensemble-based diagnosis of a recurving tropical cyclone Ensemble Sensitivity Analysis using TIGGE
10:30 - 12:00	PS-245	<b>P&amp;P - Sub-grid parameterizations for the atmosphere and ocean</b>		Christian Jakob, Martin Miller and Andy Brown	
				Bidyut Goswami Christine Lac Camille Risi Kenny Chowdhary	Superparameterized CFS (SP-CFS) for Improved Simulation of ISM Sensitivity of hailstorm prediction to several microphysical parameters Water isotopes and moist processes during the MJO Quadrature methods for sub-grid microphysics
10:30 - 12:00	PS-246	<b>P&amp;P - Year of Tropical Convection (YOTC)</b>		Mitch Moncrieff and Duane Waliser	
				In-Sik Kang Ajaya Mohan Ravindran Ángel Adames Hang Dong	GCMs with representations of cloud microphysics Realistic MJO initiation and dynamics in a GCM The MJO's temperature, vertical velocity and divergence fields performance of YOTC assimilated data in simulating MJO
10:30 - 12:00	PS-247	<b>WHI - Improved understanding of the synergies and science-based needs of multi-hazard events</b>		Xu Tang and Paul Davies	
				Baode Chen Jennifer Vanos Ken Mylne Yong Wang	Practice of impact-based forecast in weather forecast operation Urban Heat Island, Air Pollution and Synoptic Weather The WMO Severe Weather Forecasting Demonstration Project INCA-CE
10:30 - 12:00	PS-248	<b>P&amp;P - Continental convective systems</b>		David Parsons and David Stensrud	
				John Allen Babatunde Abiodun Liesl Dyson Paola Salio	US Hail and the Climate System 1979-2012 Simulating extreme rainfall events over South Africa Sounding climatology and forecasting methodology using self-organizing maps Orographic influence on convective triggering

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<b>Thursday, August 21, 2014</b>					
12:30 - 14:00	PS-249	<b>ISS - Cryosphere and stable atmospheric boundary layers</b>	Stephen Belcher, Diana Verseghy and Anton Beljaars Eric Brun Andrew Elvidge Steven Krueger Andreas Schiller	Snow cover properties and surface atmospheric fluxes Foehn jets over the Larsen Ice Shelf, Antarctica Parameterizing the effects of leads The global ocean forecasting initiative GODAE OceanView	
12:30 - 14:00	<b>PS-250</b>	<b>NPE - Environmental Prediction Systems: Tropical Aspects</b>	Masaki Satoh and Jim Doyle  Yihong Duan Ghislain Faure Abdoulaye Sarr Ting-Chi Wu	Regional Typhoon Numerical Prediction Model in China Météo-France NWP systems for tropical Overseas territories Simulation Extreme Rainy Events over Sahel with WRF satellite-based data assimilation on tropical cyclone	
12:30 - 14:00	<b>PS-251</b>	<b>WHI - Improved understanding of the synergies and science-based needs of multi-hazard events</b>	Xu Tang and Paul Davies  Thomas Gerz Joanne Robbins Sylvain Ménard Arman Ganji	Mitigating the impact of weather hazards on aviation Using TRMM precipitation estimates to understand landslide occurrence Canadian Air-Quality Forecast System with On-line Wildfire Emissions Analysis for drought early warning: an ecological system	
12:30 - 14:00	<b>PS-252</b>	<b>ODA - Coupled data assimilation and reanalyses</b>	Dick Dee and Oscar Alves  Sergey Frolov Abhishek Chatterjee Jan Keller Hara Nayak	A case for strongly coupled data assimilation NCAR CESM-DART Coupled Data Assimilation High-resolution reanalysis for the European CORDEX region Preparation of land surface dataset using HRLDAS	
12:30 - 14:00	<b>PS-253</b>	<b>ODA - Ocean and cryosphere observations and their assimilation</b>	Peter Minnett and David Bromwich Chaojiao Sun Luc Charrois Dorina Surcel Colan Anna Shlyueva	Assimilation in a ocean model with another's adjoint Assimilation of optical reflectance into a snowpack model The CONCEPTS Global Ice-Ocean Prediction System Ensemble-variational sea ice data assimilation	
12:30 - 14:00	<b>PS-254</b>	<b>P&amp;P - Dynamics &amp; predictability of middle latitude weather systems &amp; their higher and lower latitude interactions</b>	Heini Wernli and Susanne Gray  Victoria Sinclair Steven Cavallo Eyad Atallah Vinay Kumar	Moisture transport to Antarctica by extra-tropical cyclones Multi-scale Arctic to tropical interactions The cold pool of the winter of 2013-2014 Dynamical coupling between high and low latitude regions	
12:30 - 14:00	<b>PS-255</b>	<b>P&amp;P - Numerical methods of the atmosphere &amp; ocean (including composition &amp; boundary layer at all latitudes)</b>	<b>Hirofumi Tomita</b>  Pierre Bénard Didier Ricard Vladimir Shashkin Paul Williams	Earth's flattening: Impact for meteorology and climatology AROME: modified semi-Lagrangian scheme and high-resolution. Mass-conservative semi-Lagrangian transport and atmospheric model Achieving seventh-order amplitude accuracy in leapfrog integrations	
12:30 - 14:00	<b>PS-256</b>	<b>P&amp;P - Stochastic forcing, Ensemble prediction systems and TIGGE</b>	Richard Swinbank and Tom Hamill Thomas Hopson Mio Matsueda Tetsuo Nakazawa Huiling Yuan	Tigge Forecasts with Useful Skill-Spread Predictability of wintertime Euro-Atlantic weather regimes 2014 North American cold wave prediction Evaluation of TIGGE summer precipitation forecasts	
12:30 - 14:00	<b>PS-257</b>	<b>P&amp;P - Sub-grid parameterizations for the atmosphere and ocean</b>	Christain Jakob, Martin Miller and Andy Brown Joao Teixeira Danahé Paquin-Ricard Jesse Dorrestijn Piet Termonia	EDMF parameterization Cloud subgrid-scale inhomogeneity: radiative impacts at seasonal scale A data-driven stochastic parameterization of deep convection The HARMONIE forecast system	