Program for the 45th Annual Climate Diagnostics and Prediction Workshop

Virtual, October 20–22, 2020

Invited Speakers (in order of appearance in the program)

Jonathan Weyn

Dr. Jonathan Weyn is currently a data scientist at Microsoft, where we works on the weather and finance team. Following a B.S. in physics from the University of Texas at Austin, he earned his M.S. and Ph.D from the Atmospheric Sciences department at the University of Washington. His research focused on mesoscale predictability, machine learning in weather forecasting, and most recently, tackling subseasonal-to-seasonal prediction using deep learning approaches. While at the University of Washington, Jonathan also claimed the top prize for weather forecasting in the national collegiate WxChallenge forecasting contest two years in a row, unequivocally demonstrating that being a lifelong weather nerd has its perks.

Kirsten Mayer

Kirsten Mayer is a PhD student and NSF graduate research fellow at Colorado State University (CSU) advised by Elizabeth Barnes. For her PhD work, she applies machine learning techniques to find and better understand favorable tropical conditions for subseasonal (2-5 weeks) prediction of the midlatitudes. Her broader interests include tropical-extratropical teleconnections, subseasonal to seasonal prediction as well as machine learning and its interpretability. She is currently a student member on the American Meteorological Society (AMS) committee on Climate Variability and Change, on the board of the CSU student AMS chapter, and a graduate representative for the Atmospheric Science Department at CSU. Kirsten received a B.S. in Atmospheric and Oceanic Sciences from the University of Wisconsin-Madison and an M.S. in Atmospheric Sciences from CSU.

Anderson Banihirwe

Anderson Banihirwe works as a software engineer in the Computational & Information Systems Lab (CISL) at the National Center for Atmospheric Research (NCAR). He is a member of the [Pangeo project] (http://pangeo.io/). He contributes to and maintains several libraries within the open source scientific Python stack, particularly around improving scalability of Python tools in order to handle terabyte-scale datasets on HPC and cloud platforms.

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All Times listed are Eastern (UTC/GMT -4 hours)

Tuesday, October 20, 2020

12:45 – 1:00pm *Welcoming Remarks CPC*

Session 1	**ENSO Applications** Chair: Mike Halpert, NOAA CPC
1:00 – 1:20 pm	*Comparing Niño 3.4 evolution in NMME forecasts and observations* **Michael Tippett,** Michelle L'Heureux, Columbia University, NOAA/CPC
1:20 – 1:40pm	*The Importance of Central Pacific Meridional Heat Advection to the Development of ENSO* **Caihong Wen,** Arun Kumar, Michelle L'Heureux, Yan Xue, Emily Becker, NOAA/CPC, Innovim, Office of Science and Technology Integration, NWS/NOAA, Rosenstiel School of Marine and Atmospheric Science/CIMAS, University of Miami
1:40 – 2:00 pm	*A dipole Index for ENSO* **John Nielsen-Gammon,** Scott Meyer, Department of Atmospheric Sciences, Texas A&M University
2:00 – 2:20 pm	*Uncoupled El Nino Warming* **Zeng-Zhen Hu**, Michael J. McPhaden, Arun Kumar, Jin-Yi Yu, Nathaniel C. Johnson, NOAA/CPC, NOAA/Pacific Marine Environment Laboratory, Department of Earth System Science, University of California, Irvine, Atmospheric and Oceanic Sciences Program, Princeton University, Princeton, NOAA Geophysical Fluid Dynamics Laboratory
2:20 – 2:40 pm	*Do Asymmetries in ENSO predictability arise from different recharged states?* **Sarah Larson,** Kathy Pegion, Marine, Earth and Atmospheric Sciences at NC State University, Department of Atmospheric, Oceanic, and Earth Sciences & Center for Ocean-Land-Atmosphere Studies, George Mason University
2:40 – 2:50 pm	**Break**
Session 2	**Applications of Modern Technology** Chair: Michelle L'Heureux, NOAA CPC
2:50 – 3:10 pm	*S2S Prediction With A Global Deep-Learning Weather Prediction Model* **Jonathan Weyn (Invited),** Department of Atmospheric Sciences, University of Washington
3:10 – 3:30 pm	*Utilizing Interpretable Neural Networks for Subseasonal Prediction* **Kirsten Mayer (Invited**), Department of Atmospheric Science, Colorado State University
3:30 – 3:50 pm	*Pangeo Use Case: Analyzing Initialized Climate Prediction System Datasets with climpred* **Anderson Banihirwe (Invited),** Computational and Information Systems Laboratory, The National Center for Atmospheric Research
3:50 – 4:10 pm	*Does Machine Learning Based Multi-Model Ensemble Methods Add Value over Existing Methods?* **Nachiketa Acharya**, International Research Institute for Climate and Society (IRI), The Earth Institute at Columbia University, Palisades NY
4:30– 6:00 pm	**Poster Session 1**

Wednesday, October 21, 2020

11:00am – 12:30 pm	**Poster Session 2**
Session 3	**Statistical Methods To Improve Climate Analysis and Predictions** Chair: Michael Tippett, Columbia Univ.
1:00 – 1:20 pm	*On the Challenge of Defining Normal Precipitation with Medians* **Cory Baggett**, Emerson LaJoie, NOAA/CPC, Innovim
1:20 – 1:40 pm	*New calibration methods for extreme precipitation probabilities in subseasonal-to-seasonal forecast models* **Chiara Lepore,** Michael K. Tippett, Michelle L'Heureux, Melissa Ou, Laura Ciasto, LDEO, Columbia University, APAM, Columbia University, NOAA/CPC
1:40 – 2:00 pm	*Temporal disaggregation of seasonal temperature forecasts from Bayesian Joint Probability calibrarted NMME to predict daily extremes* **Johnna Infanti,** Dan Collins, Sarah Strazzo, Andrew Schepen, QJ Wang, NOAA/CPC, Innovim, Embry-Riddle Aeronautical University, CSIRO, University of Melbourne
2:00 – 2:20 pm	*Would Lagged Ensembles Increase Extended-range Forecast Skill?* **Mingyue Chen**, Wanqiu Wang, Arun Kumar, NOAA/CPC
2:20 – 2:30 pm	**Break**
Session 4	**Hydroclimate Predictions** Chair: Shih-Yu (Simon) Wang, Utah State Univ.
2:30 – 2:50 pm	*Prediction of California's most significant droughts* **Jeanine Jones**, California Department of Water Resources
2:50 – 3:10 pm	*Using Seasonal Outlooks to Forecast Probabilistic Drought Indices in the Intermountain West* **Becky Bolinger**, Colorado Climate Center
3:10 – 3:30 pm	*Application of the National Water Model (NWM) for US Drought Monitoring: An Overview of CPC Activities* **Hailan Wang,** Li Xu, Muthuvel Chelliah, David DeWitt, NOAA/CPC, Innovim
3:30 – 3:50 pm	*Predicting Rapid Changes in Evaporative Stress Index (ESI) and Soil Moisture Anomalies over the Continental US* **David Lorenz**, Jason Otkin, Center for Climatic Research, University of Wisconsin-Madison, Space Science and Engineering Center, Cooperative Institute for Meteorological Satellite Studies, University of Wisconsin-Madison
3:50 – 4:10 pm	*Evaluation of the subseasonal forecast skill of atmospheric river floods in coastal Western U.S. watersheds* **Qian Cao**, Shraddhanand Shukla, Michael J. DeFlorio, F. Martin Ralph, Dennis P. Lettenmaier, Department of Geography, University of California, Los Angeles, University of California, Santa Barbara, Center for Western Weather and Water Extremes, Scripps Institution of Oceanography, University of California
4:30– 6:00 pm	**Poster Session 3**

Thursday October 22, 2020

11:00 am – 12:30 pm **Poster Session 4**

Session 5 **Extratropical Climate Variability**
Chair: Cory Baggett, NOAA CPC/Innovim

1:00 – 1:20 pm *Links between the Pacific Decadal Precession and North American Climate Extremes*
Jason Furtado, Bruce T. Anderson, Matthew H. Rogers, School of Meteorology, University of Oklahoma, Department of Earth and Environment, Boston University

1:20 – 1:40 pm *Empirical Predictions of Atmospheric Rivers on Subseasonal Timescales*
Laura Ciasto, Daniel S. Harnos, Cory F. Baggett, Elizabeth A. Barnes, Kyle M. Nardi, NOAA/CPC, Innovim, Department of Atmospheric Science, Colorado State University

1:40 – 2:00 pm *Marine Heat Waves in the Eastern North Pacific: Characteristics and Causes*
Katie Kohlman, Seth Madden, Tom Murphree, Pennsylvania State University, York School, Naval Postgraduate School

2:00 – 2:20 pm *An Internal Atmospheric Process Determining Summertime Arctic Sea Ice Melting in the Next Three Decades: Lessons Learned from Five Large Ensembles and multiple CMIP5 climate simulations*
Dániel Topál, Qinghua Ding, Jonathan Mitchell, Ian Baxter, Mátyás Herein, Tímea Haszpra, Rui Luo, Qingquan Li, Institute for Geological and Geochemical Research, Research Centre for Astronomy and Earth Sciences, Department of Atmospheric and Oceanic Sciences, University of California, Department of Earth, Planetary and Space Sciences, University of California, Los Angeles, Institute for Theoretical Physics, Eotv € os Lor € ánd University, MTA–ELTE Theoretical Physics Research Group, Eotv € os Lor € ánd University, Laboratory for Climate Studies, National Climate Center, China Meteorological Administration, Department of Atmospheric and Oceanic Sciences and Institute of Atmospheric Sciences, Fudan University

2:20 – 2:30 pm **Break**

Session 6 **Tropical Extremes**
Chair: Luke He, NOAA CPC

2:30 – 2:50 pm *Summertime Stationary Waves Integrate Tropical and Extratropical Impacts on Tropical Cyclone Activity*
Zhuo Wang, Gan Zhang, Timothy J. Dunkerton, Fei-Fei Jin, Department of Atmospheric Sciences, University of Illinois at Urbana–Champaign, Atmospheric and Oceanic Sciences Program, Princeton University, NOAA/Geophysical Fluid Dynamics Laboratory, Northwest Research Associates, Inc., Department of Meteorology, University of Hawaii at Manoa

2:50 – 3:10 pm *The New Probabilistic Global Tropics Hazard Outlook at CPC: Weeks 2 and 3*
Lindsey Long, Nicholas Novella, Jon Gottschalck, NOAA/CPC, Innovim

3:10 – 3:30 pm *The Record-Breaking 1933 Atlantic Hurricane Season*
Philip Klotzbach, Colorado State University

3:30 – 3:50 pm *How does the MJO affect extreme rainfall around the Tropics?*
Carl Schreck, NCSU/NCICS/CISESS

3:50 – 4:10 pm *Rainfall and sea level variability in the face of changing El Niño: Evidence from the US-Affiliated Pacific Islands*
Rashed Chowdhury, P-S Chu, and James T. Potemra, Joint Institute for Marine and Atmospheric Research, University of Hawaii at Manoa

4:10 – 4:30 pm *The skill of the North American Multi-Model Ensemble in predicting Sahel rainfall*

	Alessandra Giannini, A. Ali, C. P. Kelley, B. L. Lamptey, B. Minoungou, O. Ndiaye, International Research Institute for Climate and Society, The Earth Institute at Columbia University, Laboratoire de Météorologie Dynamique/IPSL, Ecole Normale Supérieure, PSL Research University, Sorbonne Université, École Polytechnique, Centre Régional AGRHYMET, School of Earth and Environment, University of Leeds, African Centre of Meteorological Applications for Development, Agence Nationale de l'Aviation Civile et de laMétéorologie
4:30 – 4:45 pm	*Conference Wrap-Up*
4:45 pm	**End Workshop**

[SEE POSTER SESSIONS ON NEXT PAGE]

VIRTUAL POSTER SESSIONS:

With rare exception, there are TWO presenters within a single Google Meet Room. Please be respectful to the other person and share discussion time.
There will be no moderation, so we expect each presenter to hold themselves/the other person to their scheduled 5min talk time.
Presenters are generally expected to stay in their assigned rooms for the 1.5hr session and meeting participants can drop by for discussion/questions anytime during the session. However, just like an in-person poster session, if the presenter wants to leave their room/poster and go to another room (outside of their scheduled talk time), they can do so.
Format: There is no required format for the poster. If you want to keep to a typical poster format that is fine. If would like to just create a short (< 5 slides) slide deck, that's fine too.
All Times are Eastern (UTC/GMT -4 hours)
meet.google.com/XXX-XXX-XXX is a placeholder for the real URL which we will send to only registered participants at a later time.

Poster Session #1 TUESDAY 4:30pm-6:00pm

Google Meet Room #	Presenter	Talk Time	Poster Title
1	**Ciara Dorsay**, University of California, Bekeley, Tom Murphree, PhD, Naval Postgraduate School, Monterey, Kellen Jones, LCDR, US Navy, Naval Postgraduate School, Monterey	4:30-4:35	Predicting Wildfire Favorable Conditions in California at Subseasonal to Seasonal Lead Times Using Remote Predictors
meet.google.com/XXX-XXX-XXX	**Cecilia Borries-Strigle,** University of Alaska, Fairbanks	4:35-4:40	Predicting summer wildfire activity in Alaska using seasonal forecasts at a 3-month lead
2	**Guillaume Mauger**, Climate Impacts Group, UW Seattle	4:45-4:50	Stormwater, Culverts, and Flooding: Putting Climate Projections to Use
meet.google.com/XXX-XXX-XXX	**Scott Curtis** 1, Jamie Kruse 2, Anuradha Mukherji 2, Jennifer Helgeson, 3 (1) James B. Near Jr. '77 Center for Climate Studies, The Citadel, (2) East Carolina University,(3) National Institute of Standards and Technology	4:50-4:55	Compound flooding in eastern North Carolina: Understanding stakeholder perceptions and needs
3	**Peitao Peng,** Wanqiu Wang, Yun Fan, NOAA Climate Prediction Center	5:00-5:05	Significant Improvement of Dynamical ENSO Forecast with an Artificial Neural Network
meet.google.com/XXX-XXX-XXX	**Cheng-Hsuan (Sarah) Lu** 1, Chin-An Lin1, Huang-Hsiung Hsu2, Hsin-Chien Liang2 , Anton Darmenov 3, and Arlindo da Silva3 (1) University at Albany, State University of New York, Albany, NY, United States (2) Research Center for Environmental Changes, Academia Sinica, Taiwan (3) NASA Global Modeling and Assimilation Office, Greenbelt, MD, United States	5:05-5:10	Spatiotemporal Estimates of Smoke Aerosols Using Machine Learning and Climate Forecast Information
4	**Jieshun Zhu** 1,2 , Arun Kumar 1 , Wanqiu Wang 1	5:15-5:20	Intraseasonal surface salinity variability and the MJO in a climate model
meet.google.com/XXX-XXX-XXX	**Ty A. Dickinson** 1 , Jason C. Furtado 1 , and Michael B. Richman, University of Oklahoma	5:20-5:25	Subseasonal to Seasonal Extreme Precipitation Events in the Contiguous United States: Generation of a Database, Climatology, and Characteristics
5	**Yutong Pan** 1,2 , Wanqiu Wang 1 , Hui Wang 1 , David DeWitt 1 (1)NOAA/NWS/NCEP/ Climate Prediction Center, College Park, MD (2) Innovim LLC, Greenbelt, MD	5:30-5:35	Developing an Experimental Week-2 Storm Track Outlook over North Pacific, North America, and North Atlantic
meet.google.com/XXX-XXX-XXX	Joseph S. Renken 1 , Jacques Mainguy 2 , **Anthony R. Lupo** 3 , and Nicholas Wergeles 3 (1) Organic Forecasting, LLC, Columbia, MO (2) System Data Experts, Alberta, CA (3) University of Missouri, Columbia, MO 65211	5:35-5:40	Using the Daily Change in the Southern Oscillation Index to Develop Analogues and the Relationship to Severe Weather Outbreaks
6	Sam Lillo, John Albers, and Matt Newman, NOAA/ESRL/PSD	5:45-5:50	Predictability and Skill of an Operational Empirical-Dynamical Model for Weeks 3-4 Northern Hemisphere Forecasts
meet.google.com/XXX-XXX-XXX		5:50-5:55	

Poster Session #2 WEDNESDAY 11am-12:30pm

Google Meet Room #	Presenter	Talk Time	Poster Title
7	**Yuejian Zhu,** Dingchen Hou, Bing Fu, Wei Li, Walter Kolczynski, Hong Guan, Eric Sinsky, Bo Yang, Xianwu Xue, Yan Luo and Jiayi Peng, NOAA Environmental Modeling Center	11:00-11:05	The Transition of Global Ensemble Forecast System to Fully Coupled Earth System Model for Sub-seasonal Predictions
meet.google.com/XXX-XXX-XXX	**Mariano S. Alvarez,** Carolina S. Vera, Departamento de Ciencias de la Atmosfera y los Oceanos, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Centro de Investigaciones del Mar y la Atmosfera (CIMA), Instituto Franco-Argentino del Clima y sus Impactos	11:05-11:10	Evaluation of a SubX Multimodel Ensemble to predict an intraseasonal index for South America based on Outgoing Long Wave Radiation
8	**Asher Siebert**, Sylwia Trzaska, Andrew Robertson, International Research Institute for Climate and Society (IRI), Columbia University, Palisades, NY	11:15-11:20	Seasonal Climate Prediction and Communication Over Senegal using a Multi-Model System
meet.google.com/XXX-XXX-XXX	**Sara T. Strey** 1, 2 , Mike Halpert 1 , Matthew Rosencrans 1 , Luke He 1 , and Zeng-Zhen Hu 1 . (1) Climate Prediction Center, and (2) Innovim, LLC	11:20-11:25	Development of Monthly and Seasonal Drought Outlooks for the US Affiliated Pacific Islands
9	**Wesley Ebisuzaki** (1), Leigh Zhang(1,4), Arun Kumar(1), Jeffrey Whitaker(2), Jack Woollen (3,5) 1: NOAA CPC, 2: NOAA Physical Sciences Division, 3: NOAA EMC, 4: Innovim, 5: IMSG	11:30-11:35	A Conventional Observation Reanalysis (CORe) for Climate Monitoring
meet.google.com/XXX-XXX-XXX	**Willem A. Landman** and Christien Engelbrecht, Natural and Agricultural Sciences University of Pretoria	11:35-11:40	The NMME and Southern Africa's seasonal forecasts

Poster Session #2 WEDNESDAY 11am-12:30pm

10	**Marina Timofeyeva**, Viviane Silva, Fiona Horsfall, Mike Halpert, Danielle Nagele	11:45-11:50	User Feedback on Potential Changes in the ENSO Alert System
meet.google.com/XXX-XXX-XXX	Raymond B. Kiess, **Justyn D. Jackson,** Andrew D. Lahr, Patrick E. Johnston, Robert J. Flakey, Ryan J. Hunt, and William R. Frey	11:50-11:55	Evolution of the Air Force Global State of the Climate Product
11	**Emerson LaJoie,** Dan Collins, and Johnna Infanti, NOAA Climate Prediction Center	12:00-12:05	Subseasonal Forecasting Developments at the Climate Prediction Center
meet.google.com/XXX-XXX-XXX	**Bohar Singh,** Andrew Robertson, Micheal Tippet and Nachiketa Acharya International Research Institute for Climate and Society (IRI), Columbia University, Palisades, NY	12:05-12:10	Probabilistic multi-model sub-seasonal climate forecasts using skill-based model weighting
12	**Dan Collins** (NOAA/CPC), Johnna Infanti (Innovim/CPC), Sarah Strazzo (Embry-Riddle Aeronautical University), Andrew Schepen (CSIRO), QJ Wang (University of Melbourne)	12:15-12:20	Integration of decadal climate trends into the Bayesian Joint Probability (BJP) calibration of North American Multi-Model Ensemble (NMME) temperature and precipitation forecasts
meet.google.com/XXX-XXX-XXX	**Nachiketa Acharya** 1 , Michael K Tippett 1,2 , Andrew W Robertson 1 and Lisa Goddard 1 (1) International Research Institute for Climate and Society, Columbia University (2) Department of Applied Physics and Applied Mathematics, Columbia University	12:20-12:25	Does Non-Gaussian Calibration Improve Multi-Model Seasonal Forecasts?

Poster Session #3 WEDNESDAY 4:30pm-6:00pm

Google Meet Room #	Presenter	Talk Time	Poster Title
13	**Yanyun Liu** 1,2 , Weiyu Yang 1,2 , Wanqiu Wang 1 , Arun Kumar 1 , and David DeWitt 1 (1) NOAA/NWS/NCEP Climate Prediction Center, (2) Innovim LLC	4:30-4:35	Evaluation of Arctic Sea ice in a UFS-based System
meet.google.com/XXX-XXX-XXX	**Peter Bieniek,** Meibing Jin, Andrew Mahoney, Hajo Eichen, Josh Jones	4:35-4:40	Developing seasonal forecasting capability to support on-ice operations at Liberty site, Alaska
14	Guan, X. and Bhogaonker, K., Kinsella, B., Were, V., and **Pal, I.**	4:45-4:50	User-relevant freshwater supply prediction of the California's rivers
meet.google.com/XXX-XXX-XXX	**Li Xu** 1,2 Muthuval Chelliah 1 and Hailan Wang 1 (1) Climate Prediction Center, NOAA/NWS/NCEP (2) Innovim LLC.	4:50-4:55	National Water Model for Drought Monitor: A Preliminary Evaluation
15	Emily M. Klaus 1,2 , **Anthony R. Lupo** 2 , Michael J. Bodner 3 , and Joshua S. Kastman 3,4 , Patrick S. Market 2 (1) NOAA, National Weather Service, Pleasant Hill, MO WFO (2) School of Natural Resources, Atmospheric Science Program, University of Missouri, Columbia, (3) NOAA Weather Prediction Center (4) Cooperative Institute for Research in Environmental Science, University of Colorado, Boulder	5:00-5:05	The Projection of Northern Hemisphere Flow Regime Transitions Using Integrated Enstrophy in the Northern Hemisphere
meet.google.com/XXX-XXX-XXX	**Evan M Oswald**, Innovim, and Jon Gottschalck, NOAA CPC	5:05-5:10	Recent advancements in forecasting and observations of extreme heat in the US at the Climate Prediction Center
16	**Pingping Xie**, Robert Joyce, Shaorong Wu, and Bert Katz, NOAA Climate Prediction Center	5:15-5:20	Second Generation CMORPH Satellite Precipitation Estimates: Real-Time Production
meet.google.com/XXX-XXX-XXX	**Muna Khatiwada,** Scott Curtis, Department of Geography, Planning and Environment, East Carolina University	5:20-5:25	Time-Space Characterization of Precipitation in the Ganges-Brahmaputra-Meghna River Basin for Projecting Riverbank Erosion in the Bangladesh Outlet
17	**Ravi P. Shukla**, Center for Ocean-Land-Atmosphere Studies (COLA), George Mason University	5:30-5:35	The influence of subsurface conditions on the spatial and temporal variability of SST and rainfall over the global tropics in the Past 57 Years (1958–2014) reforecasts
meet.google.com/XXX-XXX-XXX	**Zachary F. Johnson**, Department of Plants, Soils, and Climate, Utah State University	5:35-5:40	Pacific decadal oscillation remotely forced by the equatorial Pacific and Atlantic Oceans
18	**Jieshun Zhu** 1,2 , Stylianos Flampouris 3* , Guillaume Vernieres 4 , Arun Kumar 1 , Avichal Mehra 5 , Meghan Cronin 6 , Dongxiao Zhang 7 , Samantha Wills 7 , Travis Sluka 4 , Jiande Wang 3 , Wanqiu Wang 1 (1) NOAA Climate Prediction Center (2) Earth System Science Interdisciplinary Center, University of Maryland (3) IMSG at EMC (4) NOAA Joint Center for Satellite Data Assimilation (5) NOAA Environmental Modeling Center, (6) NOAA Pacific Marine Environmental Laboratory (7) Cooperative Institute for Climate, Ocean, and Ecosystem Studies, University of Washington	5:45-5:50	Roles of TAO/TRITON and Argo in tropical Pacific observing system:An OSSE study for multiple time scale variability
meet.google.com/XXX-XXX-XXX		5:50-5:55	

Poster Session #4 THURSDAY 11am-12:30pm

Google Meet Room #	Presenter	Talk Time	Poster Title
19	**Melanie Schroers**, University of Oklahoma	11:00-11:05	Predictability of Subseasonal Extreme Precipitation Events in the United States
meet.google.com/XXX-XXX-XXX	**Ravi P. Shukla,** Center for Ocean-Land-Atmosphere Studies (COLA), George Mason University	11:05-11:10	Climatological influence of Land and Atmospheric Initial conditions on North America and Eurasia surface temperature and circulation in the Past 57 Years (1958–2014) reforecasts
20	**Li Ren**1,2, Pinging Xie1 , Arun Kumar1, Tim Boyer3, and Eric Bayler4 (1) NOAA/NCEP /Climate Prediction Center (2) INNOVIM, LLC (3) NOAA/NESDIS/NCEI (4) NOAA/ NESDIS/STAR	11:15-11:20	Monitoring of Global Sea-Surface Salinity through Combined Use of Satellite Observations and In Situ Measurements
meet.google.com/XXX-XXX-XXX	**Anastasia Makhnykina**, 1,2 , Anatoly Prokushkin 1,2 , Eugene Vaganov,1; (1) Laboratory of ecosystem biogeochemistry, Institute of ecology and geography, Siberian Federal University, Krasnoyarsk, (2) Laboratory of biogeochemical cycles in the forest ecosystems, V.N. Sukachev Institute of forest	11:20-11:25	Soil CO2 emission response to the main limiting factors changes during the snow-free period in Central Siberia
21	**Diego Pons** 1 , Ángel G. Muñoz 1 , Lena Schubmann 2 , Oscar Rojas 3 ,Tufa Dinku 1 , Carmen González Romero 1, Amanda Grossi 1 , Martin Leal 4 (1) International Research Institute for Climate and Society (IRI). (2) World Food Program Country Office Guatemala (3) Food and Agriculture Organization FAO (4) Climate Change Unit. Ministry of Agriculture, Livestock and food	11:30-11:35	Connecting Agriculture Stress Index Systems at the Sub-National Level to the Next Generation of Seasonal Climate Forecasts: A General Approach to Transition from Monitoring to Forecasting.
meet.google.com/XXX-XXX-XXX	**Muhammad Rezaul Haider,** Malaquias Peña, University of Connecticut	11:35-11:40	Value Added Seasonal Forecasts for Food Security Applications in the Upper Blue Nile River Basin
22	**Cory Baggett,** Emerson LaJoie, Daniel Collins, Daniel Harnos, Muthu Chelliah, Kyle MacRitchie, Evan Oswald, Stephen Baxter, and Michael Halpert	11:45-11:50	Ensemble Subsampling to Improve Week 3-4 Temperature and Precipitation Outlooks
meet.google.com/XXX-XXX-XXX	**Douglas E. Miller**, Zhuo Wang, Bo Li, Dan Harnos, and Trent Ford	11:50-11:55	Skillful Week 3-4 Prediction of Extreme Heat over the United States in Boreal Summer
23	**Luciano Andrian** 1,2 Marisol Osman 1,2 and Carolina Vera 1,2 (1) Departamento de Ciencias de la Atmósfera y los Océanos, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires (2) Centro de Investigaciones del Mar y la Atmósfera (CIMA), Instituto Franco-Argentino del Clima y sus Impactos, Universidad de Buenos Aires, Argentina.	12:00-12:05	Climate predictability on seasonal over South America from NMME models through ANOVA
meet.google.com/XXX-XXX-XXX	**Nachiketa Acharya** 1 , Simon J. Mason 1 , S. M. Q. Hassan 2 and Ángel G. Muñoz 1 (1) International Research Institute for Climate and Society (IRI), Columbia Univ. (2) Bangladesh Meteorological Department (BMD), Dhaka, Bangladesh.	12:05-12:10	On the Next Generation (NextGen) Seasonal Prediction System for Bangladesh
24	**Hui Wang**, NOAA Climate Prediction Center	12:15-12:20	Observed Long-Term Changes in Atlantic Tropical Storms, Hurricanes and Major Hurricanes
meet.google.com/XXX-XXX-XXX	**Lee Lindner**, W. Holden, and A. Neuhauser, College of Charleston	12:20-12:25	Spatial variability in tropical cyclone climatology along the southeastern Atlantic coastline of the United States