

The 4th Taiwan West Pacific Global Forecast System Development Workshop

第四屆臺灣與西北太平洋全球預報系統發展研討會

Virtual Meeting, 15–17 June, 2021

Pre-recorded Sessions

Pre-recorded Session 1: Modeling
[1-1] Review of GFS.v16 upgrade and physics development plan for the UFS Fanglin Yang (EMC)
[1-2] UFS Coupled Model Prototypes for Medium-Range and S2S Predictions Lydia Stefanova (EMC)
[1-3] UFS Land and Lake Model Development Michael Barlage, Helin Wei (EMC)
[1-4] Microphysics Development for the UFS Ruiyu Sun (EMC)
[1-5] Convection and PBL development for the UFS Jongil Han (EMC)
[1-6] Prospects of machine learning for developing model physics and data assimilation Alexei Belochitski (EMC)
[1-7] Status of FV3GFS modeling at CWB Ling-Feng Hsiao 蕭玲鳳, Feng-Ju Wang 汪鳳如, Tzu-Chi Juan 阮子齊 (CWB)
[1-8] Cumulus parameterization improvement in CWB FV3GFS Chang-Hong Lin 林昌鴻, Ling-Feng Hsiao 蕭玲鳳 (CWB)
[1-9] Recent microphysics study in CWB FV3GFS Yu-Han Chen 陳郁涵, Ling-Feng Hsiao 蕭玲鳳 (CWB)

Pre-recorded Session 2: Data Assimilation
[2-1] Data Assimilation Development for GFSv16+ Catherine Thomas (EMC)
[2-2] Clear-Sky Radiance (CSR) Assimilation from Geostationary Infrared Imagers at NCEP Haixia Liu (EMC)
[2-3] All-sky advancements and UFO Emily Liu (EMC)
[2-4] Assimilating Satellite Brightness Temperature Observations with Inter-channel Correlated Error Kristen Bathmann (EMC)

[2-5] An Overview of the Rapid Refresh Forecast System Jacob Carley (EMC)
[2-6] Status of FV3GFS data assimilation at CWB Guo-Yuan Lien 連國淵, Zih-Mao Huang 黃子茂, Chung-Han Lin 林宗翰, Tzu-Ying Chao 趙子瑩 (CWB)
[2-7] Ensemble Forecast Sensitivity to Observation Impact (EFSOI) in FV3GFS and a revised EFSOI method in hybrid data assimilation Wen-Hsin Teng 鄧雯心, Guo-Yuan Lien 連國淵 (CWB)

Pre-recorded Session 3: Ensemble Forecasting and Subseasonal-to-Seasonal Prediction
[3-1] Challenges of Global Ensemble Development Yuejian Zhu (EMC)
[3-2] The NCEP Global Ensemble Forecast System Xiaqiong (Kate) Zhou (EMC)
[3-3] The GEFS-v12 Reforecasts to Support Subseasonal and Hydrometeorological Applications Hong Guan (EMC)
[3-4] Toward Optimum Stochastic Perturbations for Coupled Global Ensemble Forecast System Bing Fu (EMC)
[3-5] GEFS application at CPC Matt Rosencrans (CPC)
[3-6] Predictability of Typhoons, Heavy Precipitation, and Heat Waves for Taiwan region using GEFSv12 Reanalysis and Reforecasts Vijay Tallapragada, Yuejian Zhu (EMC)
[3-7] Sub-seasonal to seasonal forecasts in CWB Meng-Shih Chen 陳孟詩 (CWB)
[3-8] Testing of the new version of Global Ensemble Prediction System Pei-Hsuan Kuo 郭珮萱, Deng-Shun Chen 陳登舜, Pang-Yen Liu 劉邦彥, Jen-Her Chen 陳建河 (CWB)
[3-9] Applying a Fully Bayesian Post-Processing calibration approach to the medium range and sub-seasonal probabilistic temperature forecasts in Taiwan: Current development and challenges Hsin-Yu Chu 朱心宇, Hui-Ling Chang 張惠玲 (CWB), Zoltan Toth (NOAA/GSL)
[3-10] Statistical post-processing of ensemble precipitation forecasts in Taiwan Hui-Ling Chang 張惠玲 (CWB), Shih-Chun Chou 周柿均 (CWB), Zoltan Toth (NOAA/GSL), Chih-Yung Feng 馮智勇 (Manysplendid)

Pre-recorded Session 4: Marine Modeling and Assimilation	
[4-1] NG-GODAS and SOCA Plans: Next Generation Global Ocean Data Assimilation System	Jong Kim (EMC)
[4-2] Introduction to operation details and influence of HYCOM in HMON and HWRF	Bin Liu (EMC)
[4-3] Wave Modeling and Data Assimilation Efforts at EMC	Jessica Meixner, Yi-Cheng Teng (EMC)
[4-4] UFS Hurricane Application: Development and Operational Transition of FV3-HyCOM-WW3 coupled HAFS	Zhan Zhang (EMC)
[4-5] High resolution MOM6 and regional applications	Hae-Cheol Kim (EMC)
[4-6] The application of LETKF in wave forecast on Taiwan area	HengWen Chang 張恆文 (Taiwan Group on Earth Observations/CWB)
[4-7] HYCOM at CWB	Jian-Ming Liao 廖建明 (National Academy of Marine Research/CWB)
[4-8] Real Time Global Wave Analysis based on LETKF	Stylianios Flampouris (NWS)

Online Interactive Sessions

Day 1 – Taiwan: AM 15 June (Tue) / U.S.: PM 14 June (Mon)		
Taiwan (UTC+8)	EDT (UTC-4)	
Interactive Session A: Opening and Overview – Chair: Chia-Ping (Mark) Cheng 程家平		
08:30-08:40	20:30-20:40	[A-1] CWB Director-General Opening Remarks Ming-Dean Cheng 鄭明典 (CWB)
08:40-08:50	20:40-20:50	[A-2] EMC Director Opening Remarks Brian Gross (EMC)
08:50-09:10	20:50-21:10	[A-3] Unified Forecast System Based Applications for NCEP Production Suite Vijay Tallapragada (EMC)
Interactive Session B: Modeling – Chair: Ling-Feng Hsiao 蕭玲鳳		
09:10-10:00	21:10-22:00	[B] Q&A and Discussion for Pre-recorded Session 1: Modeling

Day 2 – Taiwan: AM 16 June (Wed) / U.S.: PM 15 June (Tue)		
Taiwan (UTC+8)	EDT (UTC-4)	
(Parallel) Interactive Session C: Ensemble Forecasting and S2S Prediction – Chair: Jen-Her Chen 陳建河		
08:30-09:30	20:30-21:30	[C] Q&A and Discussion for Pre-recorded Session 3: Ensemble Forecasting and S2S Prediction
(Parallel) Interactive Session D: Marine Modeling and Assimilation – Chair: Terng Chuen-Teyr 滕春慈		
08:30-09:30	20:30-21:30	[D] Q&A and Discussion for Pre-recorded Session 4: Marine Modeling and Assimilation

Day 3 – Taiwan: PM 17 June (Thu) / U.S.: AM 17 June (Thu)		
Taiwan (UTC+8)	EDT (UTC-4)	
Interactive Session E: Data Assimilation – Chair: Guo-Yuan Lien 連國淵		
20:30-21:30	08:30-09:30	[E] Q&A and Discussion for Pre-recorded Session 2: Data Assimilation