

# 「2022 KIAPS 국제심포지엄 : 전지구 수치예보시스템 모델링」 개최 알림

【 2022. 11. 7.(월) / (재)차세대수치예보모델개발사업단 】

## □ 행사 개요

- (목 적) 전지구 수치예보시스템 모델링 및 자료동화 관련 최신 연구현황 공유 및 국·내외 전문가 간 연구 협력관계 강화
- (일 시) 2022. 11. 14.(월) 09:00 ~ 11. 16.(수) 12:30
- (장 소) 콘래드 서울호텔 파크볼룸(5F)
- (참석자) 차세대사업단 및 관련 분야 국·내외 전문가 150여명
- (발 표) 초청강연 포함 구두발표 32건, 포스터발표 44건
- (언 어) 영어

## □ 국·내외 초청강연 연사

- (미 국) Bill Skamarock, Michael Ek, Jimmy Dudhia, 신혜음 (국립대기연구센터), 김영준, 홍성유, Vijay Tallaparagada, Kevin Viner (해양대기청)
- (유 럽) Adam Scaife (영국 기상청), Stephen English (유럽중기예보센터), Dale Barker (싱가폴 기상청 파견)
- (캐나다) Mark Buehner (캐나다 기상청)
- (일 본) Masaki Satoh (일본 동경대)
- (중 국) Xingliang Li (중국 기상청)
- (호 주) Peter Steinle, Susan Rennie (호주 기상청)
- (국 내) 하종철 (기상청), 박상훈, 송하준 (연세대), 손병주 (서울대), 최석진 (강릉원주대), 임교선 (경북대), 김영호 (부경대)

## □ 참석신청

- (방 법) 행사 홈페이지([www.kiaps-symposium.com](http://www.kiaps-symposium.com))로 사전등록  
※ 발표자 등록(구두, 포스터)은 마감되었으며, 본 신청은 참석 건에 한함
- (기 간) 2022. 11. 11.(금) 12시까지  
※ 코로나19 상황과 장내 여석을 고려하여 등록인원이 많은 경우 부득이 조기에 등록 마감
- (문 의) 차세대사업단 심포지엄 담당자([syshin@kiaps.org](mailto:syshin@kiaps.org))
- (참 고) 별도 참가비용 및 숙소제공 없음. 환영만찬은 사전등록자에 한해 제공

## □ 심포지엄 프로그램 및 상세일정

First Day (14 November 2022, Monday)		
08:30~09:00	Registration	-
09:00~09:30	Opening Remarks	-
09:30~09:50	Group Photo	-
[Session I] Keynote Presentation		
09:50~10:40	Research and Forecasting Atmospheric Modeling Activities in Japan	Masaki Satoh (University of Tokyo)
10:40~11:30	Prospects and challenges for the Earth System approach to Numerical Weather Prediction at ECMWF	Stephen English (ECMWF)
11:30~13:00	Lunch Break	-
[Session II] Overview of Operational NWP Systems		
Chair : Dale Barker(CCRS), Raeseol Park(KIAPS)      Rapporteur : Sooya Bae(KIAPS), Ganghan Kim(KIAPS)		
13:00~13:20	Next generation NWP Modeling at KIAPS : Status report	W.J. Lee (KIAPS)
13:20~13:40	Improvement of NWP for NWS Forecasters through Requirement Development according to the NWS Governance Process	Young-joon Kim (NOAA)
13:40~14:00	Hierarchical System Development to support NWP model improvement	Jimy Dudhia (NCAR)
14:00~14:20	State-of-the-art NCEP operational modeling and future advances	Vijay Tallaparagada (NOAA)
14:20~14:40	Coffee Break	-
14:40~15:00	Numerical Weather Prediction at the Australian Bureau of Meteorology	Peter Steinle (BoM)
15:00~15:20	KMA operational NWP model(KIM) status and future plan	Jong-Chul Ha (KMA)
15:20~15:40	Seamless Km-Scale NWP and Regional Climate Projections for Southeast Asia	Dale Barker (CCRS)
15:40~16:00	CMA NWP system status and future plan	Xingliang Li (CMA)
[Session III] Poster Presentations		
16:00~18:30	Poster Presentations	-
18:30~20:30	Welcome Dinner	-
Second Day (15 November 2022, Tuesday)		
[Session IV] Dynamical Core		
Chair : Sanghun Park(Univ.Yonsei)      Rapporteur : Ja-Rin Park(KIAPS), Hae-Jin Kong(KIAPS)		
09:00~09:20	Application of Adaptive Time-step Algorithm in KIM	Hyun Nam (KIAPS)
09:20~09:40	A comparison of Numerical characteristics in the regional MPAS and WRF Models Using Heavy Snowfall episodes over complex terrain	Sanghun Park (Yonsei University)
09:40~10:00	Development and Evaluation of the KIM dynamic core of a stretched global grid	Suk-Jin Choi (Gangneung-Wonju National University)
10:00~10:20	Extending the nonhydrostatic MPAS atmospheric model to geospace applications	Bill Skamarock (NCAR)
10:20~10:40	An Overview of NOAA's Unified Forecast System (UFS) with Focus on the FV3 Dynamical Core	Kevin Viner (NOAA)
10:40~11:00	Coffee Break	-

<b>Second Day (15 November 2022, Tuesday)</b>		
<b>[Session V] Physics Parameterization</b>		
<b>Chair :</b> Vijay Tallaparagada(NOAA), Eun-Hee Lee(KIAPS) <b>Rapporteur :</b> Ji-Young Han(KIAPS), Jiwon Hwang(KIAPS)		
11:00~11:20	A Semi-Lagrangian Sedimentation Algorithm for Double-Moment Microphysics Scheme	Songyou Hong (NOAA)
11:20~11:40	Atmospheric Model Physics for the NOAA Unified Forecast System (UFS) Applications Across Scales	Vijay Tallaparagada (NOAA)
11:40~12:00	Subgrid-Scale Topographic Effects on Radiation for Global Weather Forecast Models	Sunghye Baek (KIAPS)
12:00~12:20	Appliance of Eddy-Diffusivity/Mass-Flux (EDMF) approach in ShinHong (SH) scheme	Wonheung Kim (KIAPS)
12:20~13:50	<b>Lunch Break</b>	
13:50~14:10	A simplified chemistry module in KIM - status and plans	Jung-Yoon Kang (KIAPS)
14:10~14:30	Evaluation of clouds in the Korean Integrated Model	Eun-Hee Lee (KIAPS)
14:30~14:50	New ice microphysics in Weather Research and Forecasting (WRF) Double-Moment 6-class (WDM6)	Kyo-Sun Lim (Kyungpook National University)
14:50~15:10	A Comparative study of various approaches for producing probabilistic forecasts of upper-level turbulence	HyeYum Shin (NCAR)
15:10~15:30	On the Need to Modify the Sea Surface Roughness Formulation over Shallow Waters	Jimmy Dudhia (NCAR)
15:30~15:50	<b>Coffee Break</b>	
<b>[Session VI] Coupled model</b>		
<b>Chair :</b> Myung-Seo Koo(KIAPS) <b>Rapporteur :</b> Mee-Hyun Cho(KIAPS), Jinyun Jeong(KIAPS)		
15:50~16:10	Extended range predictions with coupled O-A models(영상)	Adam Scaife (Met Office)
16:10~16:30	Development of the KIM coupled version	Myung-Seo Koo (KIAPS)
16:30~16:50	Atmosphere-Ocean Coupling in the Korean Integrated Model	Eunjeong Lee (KIAPS)
16:50~17:10	Mesoscale Dynamic and Thermodynamic coupling between the atmosphere and the ocean near the Kuroshio Current	Ha-Joon Song (Yonsei University)
<b>Third Day (16 November 2022, Wednesday)</b>		
<b>[Session VII] Observation preprocessing</b>		
<b>Chair :</b> Adam Clayton(KIAPS) <b>Rapporteur :</b> Hye-Sil Kim(KIAPS), Ahreum Lee(KIAPS)		
09:00~09:20	Observation processing for the KIAPS Data Assimilation system: Current status and Plan	Jeon-Ho Kang (KIAPS)
09:20~09:40	A new strategy to stabilize bias correction of satellite radiance observation in KPOP	Hyeyoung Kim (KIAPS)
09:40~10:00	Sea ice emissivity and emitting layer temperature over the Arctic Ocean for assimilating surface-sensitive microwave channels	Byung-Ju Sohn (Seoul National University)
10:00~10:20	Perspectives on observation usage at the Australian Bureau of Meteorology	Susan Rennie (BoM)
10:20~10:40	<b>Coffee Break</b>	
<b>[Session VIII] Data Assimilation</b>		
<b>Chair :</b> In-Hyuk Kwon(KIAPS) <b>Rapporteur :</b> Dayoung Choi(KIAPS), Hyerim Kim(KIAPS)		
10:40~11:00	Recent changes to the DA systems at ECCC(영상)	Mark Buehner (ECCC)
11:00~11:20	Recent progress in Earth System Data Assimilation and Observation usage at ECMWF	Stephen English (ECMWF)
11:20~11:40	Development of data assimilation systems for current and future KIAPS models	Adam Clayton (KIAPS)
11:40~12:00	Impact of in-situ and satellite data assimilation on high-resolution ocean prediction system in the Northwest Pacific Ocean	Young Ho Kim (Pukyong National University)
12:00~12:20	Framework for all-sky radiance assimilation in the KIM forecast system	Sihye Lee (KIAPS)
12:20~12:30	<b>Symposium Summary &amp; Closing</b>	