

# WCRP Workshop on Extremes in Climate Prediction Ensembles (ExCPEnS)

- Online from APEC Climate Center  
25-27 October 2021
- Early Career Scientist training and discussion forum  
27-28 October 2021

The focus of this workshop is exploiting subseasonal, seasonal, annual to decadal and longer-term prediction ensembles to improve the prediction and understanding of extreme weather and climate events.

## Sessions:

1. Identification of extremes in observations and climate prediction ensembles
2. Physical mechanisms of extremes in observations and climate prediction ensembles
3. Regional climate extreme information relevant to impacts, vulnerability and adaptation
4. Prediction and predictability of large-scale climate variability relevant to extreme events
5. Prediction and predictability of specific extreme events (>10 days)
6. Quantifying current and future risks of climate extremes

Sponsored by

**APN** ASIA-PACIFIC NETWORK FOR  
GLOBAL CHANGE RESEARCH

**WCRP**  
World Climate Research Programme

**RCCS**  
RESEARCH CENTER FOR CLIMATE SCIENCES



**WCRP ExCPEnS**



WCRP Workshop on Extremes in Climate Prediction Ensembles(ExCPEns)

ECS Training and Discussion

- 27 - 28 October 2021 -

27 October, Wednesday					
TIME					AGENDA
GMT	KST		GMT	KST	
10:00	19:00		12:00	21:00	ECS Discussion and Network Forum Chair: Dr. Xuebin Zhang, ECCC
10:00	19:00	-	11:30	20:30	<u>Plenary Session</u> Introduction of ECS, lecturers, and experts
11:30	20:30	-	11:40	20:40	Break
11:40	20:40	-	12:40	21:40	<u>Small group discussion</u> 6 breakout sessions for each group in parallel
11:40	20:40	-	12:00	21:00	<u>Summary</u> Share summaries of each small group discussion * Rapporteurs report on summary of each group discussion

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ECS Training and Discussion

- 27 - 28 October 2021 -

28 October, Thursday I					AGENDA
TIME					
GMT	KST		GMT	KST	
4:00	13:00		6:30	15:30	ECS Training Program 1 Chair: Dr. William Merryfield (WCRP/WGSIP)
4:00	13:00	-	4:05	13:05	Session introduction
4:05	13:05	-	4:35	13:35	[S1_Extreme] Lecture 1. Detection of extreme events using Machine Learning (Sookyoung Kim, PARC)
4:35	13:35	-	4:50	13:50	Lecture 1. Q&A
4:50	13:50	-	5:20	14:20	[S1_Extreme] Lecture 2. Extreme event attribution (Megan Kirchmeier – Young, ECCO)
5:20	14:20	-	5:35	14:35	Lecture 2. Q&A
5:35	14:35	-	5:45	14:45	Break
5:45	14:45	-	6:15	15:15	[S2_Projection] Lecture 1. How to use the AR6 WGI interactive Atlas for climate change studies (Jin-Ho Yoon, GIST)
6:15	15:15	-	6:30	15:30	Lecture 3. Q&A

28 October, Thursday II					AGENDA
TIME					
GMT	KST		GMT	KST	
10:00	19:00		12:30	21:30	ECS Training Program II Chair: Dr. June-Yi Lee (RCCS, ICCP)
10:00	19:00	-	10:05	19:05	Session introduction
10:05	19:05	-	10:35	19:35	[S1_Extreme] Lecture 3. Predictability of extreme events in S2S time scale (Frederic Vitart, ECMWF)
10:35	19:35	-	10:50	19:50	Lecture 1. Q&A
10:50	19:50	-	11:20	20:20	[S2_Projection] Lecture 2. Low likelihood high impact events assessed in AR6 WGI Chapter 4 (Erich Fischers, ETH Zurich)
11:20	20:20	-	11:35	20:35	Lecture 2. Q&A
11:35	20:35	-	11:45	20:45	Break
11:45	20:45	-	12:15	21:15	[S2_Projection] Lecture 3. Change of extremes assessed in AR6 WGI Chapter 11 (Xuebin Zhang, ECCO)
12:15	21:15	-	12:30	21:30	Lecture 3. Q&A

## Special Issue of APJAS

### Special Issue

#### Extreme Weather and Climate Events: Dynamics, Predictability and Ensemble Simulations



We invite studies and review articles with a focus on

- prediction and predictability of extremes on time scales of more than 10 days
- risks and mechanisms of extremes in past, current and future climates
- use of ensembles for predictability and attribution studies of extremes

- Deadline for manuscript submission: March 31<sup>st</sup>, 2022
- Accepted articles will be immediately published online
- Open access option

