MAY 10-13, 2022 | BOULDER, CO & VIRTUAL

The Pattern Effect Workshop

Coupling of SST Patterns, Radiative Feedbacks, and Climate Sensitivity

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Scientific Organizing Committee

Maria Rugenstein, Colorado State University (co-chair)
Cristian Proistosescu, University of Illinois Urbana-Champaign (co-chair)
Kyle Armour, University of Washington
Natalie Burls, George Mason University
Piers Forster, University of Leeds, UK
Jonathan Gregory, University of Reading and Met Office, UK
Sarah Kang, Ulsan National Institute, South Korea
Norman Loeb, NASA Langley
Bjorn Stevens, Max Planck Institute for Meteorology, Germany
Laure Zanna, New York University

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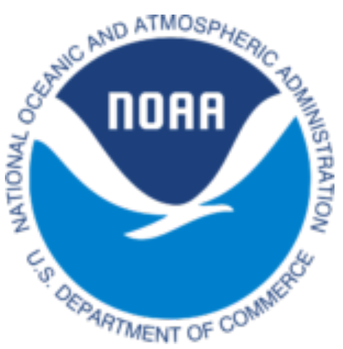
https://usclivar.org/meetings/pattern-effect-workshop

Sponsors & Participants

RGMA



MAPP
CVP

CLD

In-person Attendee	70	52%
Virtual Attendee	65	48%

Total : 135 Participants

Goal

The “pattern effect” describes the impact of time-evolving sea surface temperature (SST) patterns radiative feedbacks, and climate sensitivity, (mediated by ocean and atmospheric circulation).

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Goals:

(1) bring together **different communities**

(3) Synthesize and *syncretize* (Tues-Wed)

(4) Looking forward (Wed-Fri)

Participants

Career Stage

Student (undergraduate or graduate)	31%
Early career	40%
Advanced Career Stage	27%
Prefer not to say	3%

Areas:

Cloud Feedbacks and Climate Sensitivity (CFMIP)
Atmospheric & Climate Dynamics
Physical Oceanography
Paleoclimate
Remote Sensing
Numerical Modeling

Philosophy

Synthesize

- Speakers: Keep the broad audience in mind
- Everyone: Questions, Questions, Questions

Advance

- Be creative: no one knows the right answer
- Be respectful of other people's perspectives

Agenda:

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Meeting Homepage »

Poster Gallery »

Tuesday, May 10 2022

Time (MDT)	Agenda	Presenter	Presentation
	Note: All displayed times are in US Mountain Daylight Time (UTC -6). Convert to your local time.		
07:00	Workshop registration & continental breakfast		
07:30	Virtual room open		
08:00	Welcome, opening remarks	Maria Rugenstein and Cristi Proistosescu	
	Session 1: Perspective, Frameworks, and Mechanisms		
08:10	**Review talk** on perspectives and history of the pattern effect	Maria Rugenstein (Colorado State University)	
08:40	**Invited review talk** on radiative mechanisms creating the pattern effect	Yue Dong (Columbia University)	
09:10	Break		
09:40	**Review talk** on frameworks of including the pattern effect in simple energy balance models	Cristi Proistosescu (University of Illinois)	
10:10	Discussion on the first three talks		
11:00	Ice breaker		
11:30	Lunch		
	Session 2: Historical and Coupled Perspective		
13:00	**Invited review talk** on SST pattern evolutions in the instrumental record of the 20th century	Kris Karnauskas (University of Colorado)	
13:30	**Invited review talk** on SST patterns and TOA radiation in the instrumental record since 2000	Norman Loeb (NASA Langley)	
14:00	Discussion		
14:30	Break		
15:00	Lightning poster talks for online poster presenters I		
15:30	In-person poster session I and networking event		
17:30	End day 1		

Agenda:

- Review Talks
- Poster Sessions
- Panel Discussion
- Breakout Session
- Greens Function MIP

Agenda:

- Review Talks
  - 20 mins + 10 mins Q&A
  - Line up by mic. State name + affiliation
  - Virtual: raise hand to unmute or type in chat
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  - Poster Gallery: UPLOAD!
  - 3 Lightning Talks for virtual participants
  - In-person poster sessions: (1 XOR 2) AND 3
  - **Hybrid: by appointment**
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Slack & Social Media

- Slack: Link in “What to Know” email
  - Free-form discussions
  - Thematic discussions
  - Share Figures / Papers
  - Plan one-on-one meetings (virtual .* in-person)
  - Social outings

- Social Media:
  - @USCLIVAR
  - #PatternEffect

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- Jennie Zhu
- Sam Coakley
- Maria Rugenstein
- Cristi Proistosescu

Ice Breaker Game

1 - Quiz

The observed East Pacific cooling is a response to CO2 forcing.

2 - Quiz

The pattern effect is relevant for predicting the next 30 years.

3 - Quiz

The pattern effect is essiential for interpreting the paleo climate record.

4 - Quiz

The magnitude of the pattern effect in climate models is too high.

5 - Quiz

Do you feel comfortable discussing the pattern effect?