

Extremes

CESM Workshop June 2019

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Agenda

Extremes Cross Working Group Session

Monday, 17 June 2019

NCAR – Boulder, Colorado – Center Green Auditorium – North Bay

Webcast: <http://www.fin.ucar.edu/it/mms/cg-north-live.htm>

13:40 *Landrum and Pendergrass* – Introduction

13:55 *Marika Holland* – Extremes in the Arctic

14:10 *Dave Lawrence* – Impact of land processes on extremes

14:25 *Christine Shields* – Extremes in the Midlatitude Storm Track:
Atmospheric Rivers

14:40 Discussion

15:10 *Break*

CGD Extremes: Overview

- What is CGD Extremes?
- What have we done?
- Where are we going?



CGD Extremes: Overview

- Goals:
 - To advance science in CGD with intellectually stimulating activity
 - To build connections across CGD sections
 - To bring visibility to CGD
- Form:
 - Not predetermined
 - Has evolved into a collaboration incubator

How do climate states and extremes in the atmosphere, ocean, land surface, ice and biosphere interact?

Shifts in the **midlatitude jet stream**, changes in **precipitation** and **aridity**, **vegetation** and **fire**

Shifts in the **midlatitude jet stream**, changes in **precipitation** and **aridity**, and interactions with **Greenland**

Arctic cyclones, **sea ice**, and **coastal environments** and how they change with climate

Role of atmospheric **dynamics** and **changes in SSTs/ sea ice** on changes in the **surface mass balance** of **Antarctic Ice Sheet**

CGD Extremes: Overview

- Next steps:
 - Work on specific topics, where possible
 - Gather resources (computing, proposals) for other topics



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Discussion notes:
<https://bit.ly/2XQ5VdU>



Questions for discussion

- What should CGD Extremes be, and where should we go?
 - Right now we are a “collaboration incubator”
 - Do you like this direction?
 - Is there another niche we are missing?
 - How could we incorporate the university community?

Questions for discussion

- What should CESM be doing in the next ~5 years (and how might CGD extremes fit in this vision)?
 - What is the niche for CESM?
 - What should CESM do / focus on for the next 5 years?
 - What are the needs?