

## ADVANCES & CHALLENGES

in *Understanding & Predicting*



**CLIMATE  
TELECONNECTIONS**

Co-Chairs: Dan Vimont & Emanuele Di Lorenzo

## ADVANCES & CHALLENGES

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## CLIMATE TELECONNECTIONS

### GUIDING QUESTIONS:

Which observations and modeling approaches are required to establish robust relationship between teleconnection dynamics and changes in mean state (e.g. decadal and climate change)?

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## CLIMATE TELECONNECTIONS

### GUIDING QUESTIONS:

How predictable (e.g. sources of uncertainty) are the impacts of teleconnections (e.g. ENSO) on regional and coastal systems (e.g. extreme events, droughts, marine heatwaves)? Are these impacts being influenced by global climate change?

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## CLIMATE TELECONNECTIONS

### GUIDING QUESTIONS:

Which approaches and methods are best suited to diagnose teleconnection dynamics and impacts in climate models, and perform comparisons to observations?

## ADVANCES & CHALLENGES

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### TOPIC 1

#### SENSITIVITY

to mean climate  
state & decadal  
variability

## CLIMATE TELECONNECTIONS

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### CLIMATE TELECONNECTIONS



#### TOPIC 1

#### SENSITIVITY

to mean climate  
state & decadal  
variability

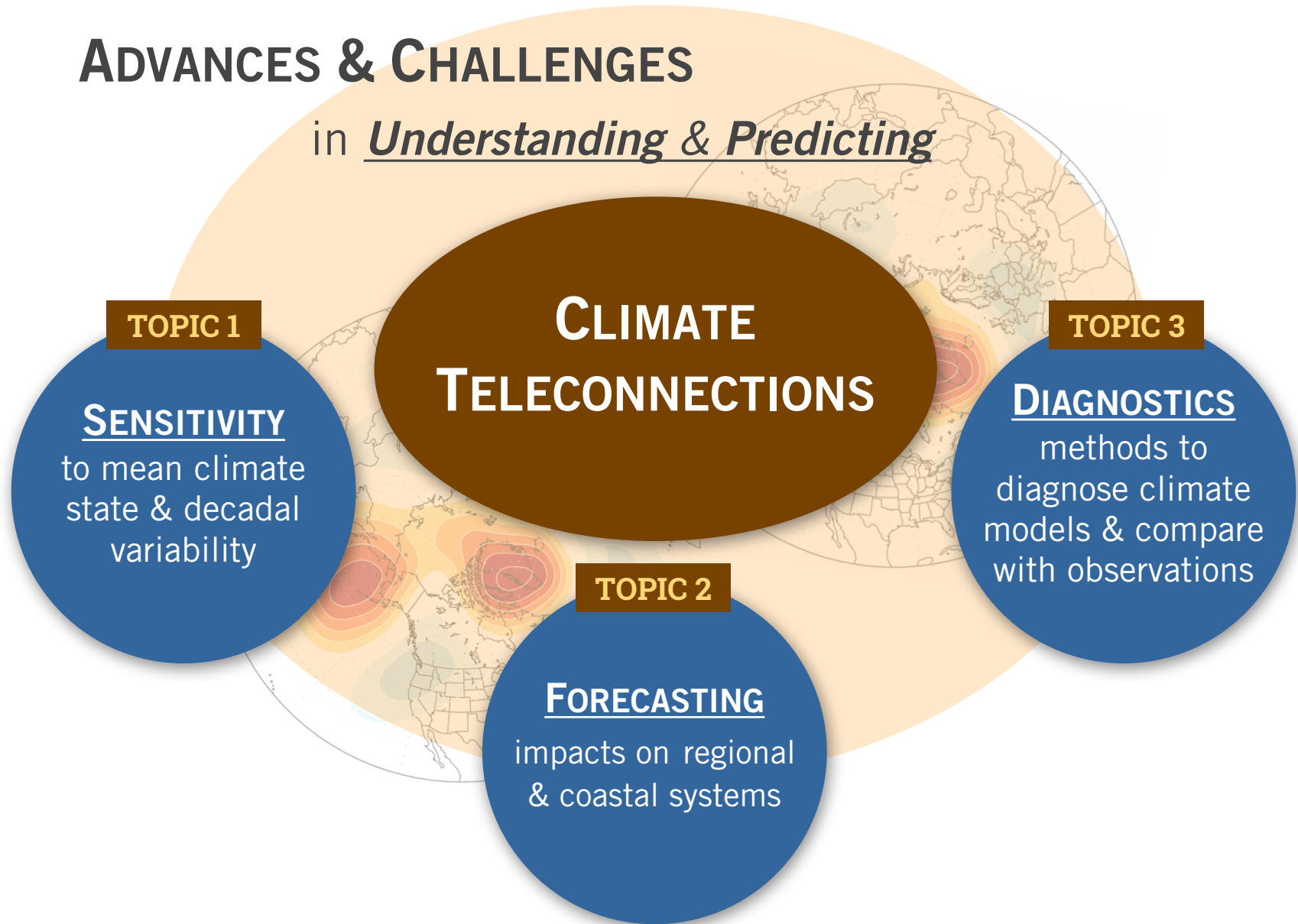
#### TOPIC 2

#### FORECASTING

impacts on regional  
& coastal systems

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# Teleconnections Session, US CLIVAR Summit 2017

## TOPIC 1

### SENSITIVITY

to mean climate state & decadal variability

## TOPIC 2

### FORECASTING

impacts on regional & coastal systems

## TOPIC 3

### DIAGNOSTICS

methods to diagnose climate models & compare with observations

# CLIMATE TELECONNECTIONS





# Teleconnections Session, US CLIVAR Summit 2017

## TOPIC 1

### SENSITIVITY

to mean climate state & decadal variability

## TOPIC 2

### FORECASTING

impacts on regional & coastal systems

## TOPIC 3

### DIAGNOSTICS

methods to diagnose climate models & compare with observations

## SESSION'S TALKS

10:05 AM -10:25 AM

Speaker: **Alyssa Atwood (Topic 1 & 3)**

High-latitude teleconnection to tropical mean climate: observations vs. models

10:25 AM -10:40 AM

Speaker: **Daniel Swain (Topic 1 & 2)**

Teleconnections and regional impacts under anthropogenic forcing

10:40 AM -11:00 AM

Speaker: **Antonietta Capotondi (Topic 2 & 3)**

ENSO diversity, teleconnections and impacts

11:00 AM -11:20 AM

Speaker: **Samantha Stevenson (Topic 3 & 1)**

Methods to quantify uncertainty in coupled climate models teleconnections

# Teleconnections Session, US CLIVAR Summit 2017

## TOPIC 1

### SENSITIVITY

to mean climate state & decadal variability

## TOPIC 2

### FORECASTING

impacts on regional & coastal systems

## TOPIC 3

### DIAGNOSTICS

methods to diagnose climate models & compare with observations

## BROAD QUESTIONS:

1. Which observations and modeling approaches are required to establish robust relationship between teleconnection dynamics and changes in mean state (e.g. decadal and climate change)?
2. How predictable are the impacts of teleconnections (e.g. ENSO) on regional and coastal systems (e.g. extreme events, droughts, marine heatwaves)? Are these impacts being influenced by global climate change?
3. Which approaches and methods are best suited to diagnose teleconnection dynamics and impacts in climate models, and perform comparisons to observations?

## EXPECTED GOALS:

1. Assessment of observations relevant to constrain teleconnections
2. Understanding of model performance regarding teleconnection processes
3. Recommendations on future community experiments/improvements to observational network