

**CW3E Annual Meeting
April 16th-19th
Scripps Sea Side Forum**

Monday, April 16th

12:30-1:00: Check-in register

1:00-2:00: Welcome and State of CW3E
45 min presentation and 15 mins for questions

Extreme Precipitation Climatology and Future Projections

Moderator: Mike Sierks

2:00-2:15 Duane Waliser: Global AR Research Activities with CW3E
2:15-2:30 Sasha Gershunov: Role of Atmospheric Rivers in Projected West Coast Precipitation Regime Change
2:30-2:45 Dan Cayan: Future Hydroclimate of California
2:45-3:15 Discussion

3:15-3:30 *Break*

3:30-3:45 Maryam Asgari Lamjiri: Hourly Characteristics of Rainfall Intensity and Duration Associated with California Atmospheric Rivers
3:45-4:00 Zhenhai Zhang: The Relationship between Atmospheric River and Extratropical Cyclone over US West Coast
4:00-4:15 Corina Cerovski-Darriau: The 'null' Landslide Problem: Mapping Landslide-Free Areas of California to Inform Landslide Susceptibility Models
4:15-4:30 Collin Cronkite-Ratcliff: How much rain until slopes become susceptible to landslides?

4:30-5:00 Discussion

Tuesday, April 17th

Physical Processes and Mesoscale Dynamics

Moderator: Kara Voss

9:00-9:15 Andrew Martin: How can a mesoscale frontal wave impact forecasts of a landfalling atmospheric river?
9:15-9:30 Bin Guan: Water Vapor Budget in Atmospheric Rivers: A Multi-model Evaluation

- 9:30-9:45 Chad Hecht: Synoptic to Mesoscale Forcing of Southern California Extreme Precipitation
9:45-10:00 Anna Wilson: An Overview of the FIRO-2018 Field Campaign
10:00-10:30 Discussion

10:30-10:45 *Break*

Forecasting

Moderator: Meredith Fish

- 10:45-11:00 Jason Cordeira: The Influence of Atmospheric Rivers on National Weather Service Watches, Warnings, and Advisories Issued Over California 2007–2016
11:00-11:15 Brian Bong: Atmospheric Rivers impacts on the eastern Sierra and western NV
11:15-11:30 Kyle Nardi: An assessment of numerical weather prediction models in forecasting atmospheric rivers
11:30-11:45 Dave Reynolds : A Near Real-time QPF Verification for Improved QPF Forecasts
11:45-12:00 Laurel DeHaan: Object-based Verification of Forecasted Atmospheric Rivers

12:00-12:30 Discussion

12:30-12:40 Group Photo

12:40-1:15 *Lunch (Hang Posters)*

1:15-2:45 CW3E Strategic Planning – Lead by Arleen O’Donnell and Rob Hartman

2:45-3:00 *Break (Hang Posters)*

Forecasting (continued)

Moderator: Will Chapman

- 3:00-3:15 Alex Tardy: Using CFSv2 and extended NWP for pattern change prediction and potential precipitation
3:15-3:30 Mike DeFlorio: TBD
3:30-3:45 Aneesh Subramanian: Real-time subseasonal outlooks of ARs
3:45-4:00 Kristen Guirguis: Circulation drivers of Atmospheric Rivers along the North American West Coast
4:00-4:30 Discussion

4:30-6:30 **CW3E Reception and Poster Session**

Wednesday, April 18th
Meetings in the Ted Scripps Room

9:00-12:00 FIRO Meeting

9:00-9:15 Opening remarks (Marty)

10:00-10:45 Coordination Between Tasks

- *Successes*
- *Ongoing challenges and ideas for tackling them*

11:00-11:30 CW3E science supporting the FVA (review slides, discuss timeline for tasks (FVA completed approx. end of 2020/early 2021)

11:30-12:00 FIRO in 5 years – what should our targets be in the strategic plan?

1:30-4:30 AR Program Meeting – agenda to be determined

1:30-1:45 Opening Remarks (Marty)

1:45-3:30 Task and Subaward Updates (10 mins each) to include review of deliverables, progress to date, relevant results and what's next, questions for the team about the task.

- Aneesh - AR R&D (Task 1A)
- Rachel and Jennifer - West-WRF (Task 1B), to include Chen's subaward
- Chad and Jay - Forecast Operations Integration (Task 1C)
- Anna - Evaluate and Enhance AR Observing Network
- Amato - Aerosols in Precipitation Forecasts
- John - Landslide susceptibility map
- Dennis - Evaluating Water Balance of AR Precipitation (subaward)
- Soroosh - Evaluate Precipitation Estimation Methods
- Gudrun - Rossby Wave Breaking on AR predictability

3:45-4:15 Coordination within Project

4:15-4:30 Wrap-up

Thursday, April 19th

AR Recon & Data Assimilation

Moderator: Reuben Demirdjian

9:00-9:30 Marty Ralph: Atmospheric River Reconnaissance 2018: A Review of Operations, Communication, and Flights

9:30-9:45 Aneesh Subramanian: Progress on Modeling and Data Assimilation studies for AR Recon

9:45-10:00 Jennifer Haase: Airborne GNSS-RO Observation Goals during AR Recon

10:00-10:30 *Break*

10:30-10:45 Minghua Zheng: Impacts of Dropsonde Observations on the Predictability of Two Landfalling Atmospheric River Events in February 2016

10:45-11:00 Joel Norris: Observations of the complete water vapor budget of an atmospheric river

11:00-11:15 Forest Cannon: Airborne Radar Observations of Oceanic Precipitation in Atmospheric Rivers

11:15-12:00 Discussion

12:00-1:00 *Lunch*

Hydrology and Snow

Moderator: Ali Hamidi

1:00-1:15 Steve Margulis: Development of midlatitude montane snow reanalysis datasets and their usage in gaining insight into snow variability and its drivers

1:15-1:30 Edwin Sumargo: Effects of Cloud Variability on Snow-fed Runoffs in California's Sierra Nevada

1:30-1:45 Brian Henn: The role of atmospheric river rain-snow levels and pre-existing snowpack in the 2017 Oroville Dam crisis

1:45-2:00 Rob Hartman: Understanding NWS Hydrologic Ensemble Forecasts

2:00-2:15 Adrian Borsa: From drought to hurricanes: what observations of Earth deformation can tell us about hydrological processes

2:15-2:45 Discussion

2:45-3:30 Wrap-Up and Concluding Remarks

Posters during the Reception on Tuesday

Liza Diaz

Meredith Fish

Ali Hamidi

Lindsey Jasperse

Brian Kawzenuk

Nora Mascioli

Mike Sierks

Rui Sun

Kara Voss

Michael Murphy