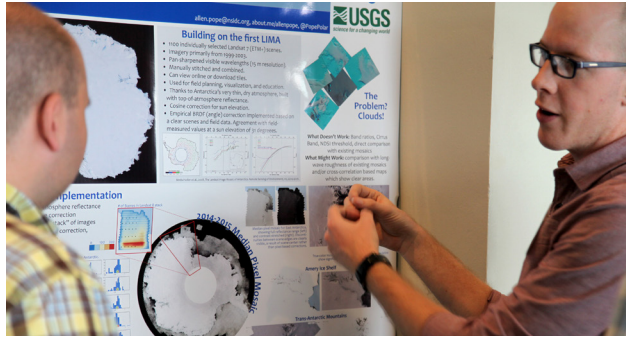




University Memorial Center • Thursday, May 18 • 1:00 pm

Rendezvous

2017



CIRES Annual Science Symposium

Celebrating five decades of scientific excellence

Hosted by


CIRES MEMBERS' COUNCIL

email: cires-cmc@lists.colorado.edu

Come celebrate innovation,
performance, and outstanding
science with your CIRES colleagues!

Poster abstracts are now available online.

Click or go here for access: <http://ciresevents.colorado.edu/rendezvous/poster-abstracts>



Rendezvous 2017

May 18, 2017

University Memorial Center (UMC)

Poster hanging time: 11:00 am – 1:00 pm (UMC Terrace Tent and Aspen Rooms)

Please allow some time to check-in before the festivities begin.

CMC/Director's Welcome: 1:00 pm (UMC Terrace Tent)

Poster session: 1:30 pm – 2:30 pm (UMC Terrace Tent and Aspen Rooms)

- Administration (Orange)
- Center for Science and Technology Policy Research (Light Blue)
- Cryospheric and Polar Processes Division (Purple)
- Ecosystem Science (Light Green)
- Education Outreach Program (Yellow)
- Weather and Climate Dynamics Division (Royal Blue)
- Environmental Chemistry Division (Green)
- Environmental Observations, Modeling and Forecasting Division (Red)
- Solid Earth Science (Burgundy)
- Western Water Assessment (Silver)

Awards: 2:30 pm – 3:15 pm (Glenn Miller Ballroom)

Appetizers and Happy Hour begin being served: 3:15 pm – 3:30 pm
(Glenn Miller Ballroom)

CIRES 50th Timeline: 3:30 pm – 4:15 pm (Glenn Miller Ballroom)

Reception & live entertainment: 4:15 pm
(Brazilian Themed Buffet will be served in UMC 235 starting at 4:15pm)

From the CIRES Director



Dear Colleagues, Friends, and Champions of CIRES,

Once again, it is my pleasure to welcome you to the annual CIRES Rendezvous. This year also marks a major milestone as we celebrate 50 years of excellence in science and engineering at CIRES, with an eye towards forging the path for our next 50. This anniversary is a time to look back and celebrate our legacy, our accomplishments, and our impact on society. It is also a time to look forward and celebrate our potential, including those in our community who will lead CIRES and the global scientific community into the years and decades to come with their insights, innovations, and ingenuity.

I came to CIRES as a graduate student shortly after its 25th anniversary, and even then, the importance and value of the work that everyone at CIRES does was plainly obvious to me. In the 25 years since, as CIRES has grown in size, stature, and capability, so too has my appreciation, admiration, and respect for all you do. From my early days as a graduate student to my tenure as Director, this institute and what it has to offer have not only made important contributions to science and society, but, on a more personal level, to me. CIRES has been an important and invaluable part of my career. And I am confident that CIRES will continue to serve as a platform to launch the careers of our graduate students, post-doctoral scientists, and early career researchers and faculty, while remaining an invigorating and rewarding place for those of us who have been around a little longer.

I look forward to celebrating our legacy and our future during this year's Rendezvous and 50th Anniversary celebrations. Thank you for your hard work, dedication, and tremendous contributions to the important work that we do.

With Warm Regards,

A handwritten signature in blue ink, which appears to read "Waleed Abdalati". The signature is fluid and cursive, with a long horizontal stroke at the end.

Waleed Abdalati
CIRES Director

2017 Career Track Promotions

Promoted to:

Administrative Associate III

Cholpon Minbaeva

Associate Scientist II

Jessica Calme
Audra McClure-Begley
Daniel Warren

Associate Scientist III

Charles Anderson
Agnieszka Gautier
Shannon Leslie
Matthew Smith
Dustin Swales
Pamela Wyatt

Senior Associate Scientist

Elizabeth Cassano
Duane Kitzis

Research Scientist II

Christopher Cox
Guoqing Ge
Stefan Schwietzke
Lantao Sun

Research Scientist III

Ming Hu
Megan Melamed
Stefan Tulich

Senior Research Scientist

Colm Sweeney

Years of Service (as of December 31, 2016)

5 Years of Service

George Campbell
Sara Crepinsek
Jonathan Darnel
Jon Davis
Gijs de Boer
Wynn Eberhard
Amy FitzGerrell
Raina Gough
Shilpi Gupta
Emiel Hall
Todd Johnston
Larisa Krista
Katherine Leonard
Zhuxiao Li
Matthew Love
Amanda Morton
David Oonk
Sandy Starkweather
Allyn Treshansky
Jocelyn Turnbull
Hannah Wilcox
Takanobu Yamaguchi
Michael Zucker

10 Years of Service

Kelly Carignan
Marc Cloninger
Barry Eakins
Fred Fehsenfeld
Shari Fox Gearheard
Andrew Jacobson
Deann Miller
Rhonda Miller
Kevin Schaefer
Maria Siso
Dallas Staley
Scott Stierle

15 Years of Service

Jennifer Bell
Elizabeth Cassano
John Cassano
Lucia Harrop
Roberta Klein
Ami Nacu-Schmidt
Gopakumar Padmanabhan
Robert Pincus
Matthew Savoie
Elizabeth Sheffield

David Stone
Michael Stowe
John Taylor
Carsten Warneke
Tao Zhang

20 Years of Service

Charles Eubank
Florence Fetterer
Kathleen Lantz
Julienne Stroeve
Susan Sullivan

25 Years of Service

Sergey Matrosov
Thomas Mefford
Matthew Newman
Ola Persson
Catherine Smith
Margaret Tolbert

30 Years of Service

Roger Bilham
Cindy Brekke
Jon Eischeid
Nan Regnier

2017 CIRES Outstanding Performance Awards

Science and Engineering

CRITERIA 1: Development of new scientific, engineering and/or software tools or models directly resulting in novel research valuable to CIRES and the wider scientific community.

CRITERIA 2: Uncommon initiative, resourcefulness, and/or scientific creativity conducting research with potential to expand or change the direction of a particular field or discipline.

CRITERIA 3: Participation in collaborative and/or multidisciplinary research that engages a broader cross-section than the nominee's typical scientific or engineering community.

GEORGE MILLWARD in NOAA's Space Weather Prediction Center, won for his uncommon scientific creativity and resourcefulness in transitioning an academic geospace model (from the University of Michigan) into operations. This model serves NOAA's Space Weather Prediction Center (SWPC) forecasters and stakeholders, including power grid operators.

Millward's successful efforts involved developing software tools for the transition, innovating new ways to operate the model and visualize output, and working through political and administrative challenges encountered along the way. The results of his work will enable continuous, minute-by-minute, short-term forecasts of geospace conditions that are useful for both space weather operations and for the broader scientific enterprise, his nominators wrote.

DEREK HAGEMAN in NOAA's Global Monitoring Division, won for outstanding software development to support his division's mission to collect and understand accurate, long-term atmospheric data. Hageman's work includes creating, maintaining, modifying, and deploying code to acquire, transfer, and visualize atmospheric data collected worldwide. Hageman's expertise in programming and his grasp of the global science conducted within the Global Monitoring Division have enabled the division to save hundreds of thousands of dollars in commercial software purchases avoided. And Hageman's code, which allows for visualization of data, analysis, and much more, is far more flexible than what could be purchased.

A Canadian government scientist, who wrote in support of Hageman's award, called Hageman "an amazing asset for NOAA and CIRES," noting that he is not only expert at data extraction, statistical analysis, and plotting, but he is invariably available to help create new and highly useful analysis tools for the global community. "We absolutely could not run this global network without him," Hageman's nominator wrote.

GILBERT COMPO in NOAA's Physical Sciences Division, won for leading the development of the 20th Century Reanalysis. Compo initiated the original idea behind the reanalysis (i.e., a reanalysis that relied only on surface pressure records and thus could extend back more than 100 years) and then managed and curated the large undertaking of creating of the reanalysis itself. This effort has inspired creation of a similar effort at the European Center for Medium-Range Weather Forecasts and thus has been international in its level of impact and influence.

"Gil had the vision to see the need for a long, consistent climate record, the imagination to see that weather forecasting techniques could be useful even when observations were few and far between, the commitment to assemble the enormous resources required to implement the idea, and the generosity to involve everyone who became fascinated along the way," his nominator wrote.

2017 CIRES Outstanding Performance Awards

Service

CRITERIA 1: Implementation of a creative or innovative idea, device, process, or system that aids in research, teaching, or outreach at CIRES.

CRITERIA 3: Providing a service that promotes or inspires excellence and dedication to research performed at CIRES or in the wider community.

CRITERIA 2: Development or improvement of a service that increases the efficiency, quality, or visibility of scientific research or outreach.

MARC CLONINGER and **ANDREA DIETZ** on CIRES' Finance team, won for being "world class enablers of CIRES." This nomination provided numerous examples of Cloninger and Dietz going above and beyond to help CIRES personnel in navigating budgets, proposals, and university and NOAA systems. In particular, the CIRES finance team's navigation of the university's transition to a new financial system was exemplary and largely shielded CIRES personnel from the bumps and bruises associated.

"Marc and the rest of the team clearly strive to continually improve, seeking feedback quickly and efficiently, and working with colleagues to build systems and processes that support continued excellence," the nominators wrote. They also noted that principal investigators lucky enough to work with Marc and Andrea spend substantially more time on their own research and less on paperwork than colleagues in other departments and institutions.

KELLY CARIGNAN and **MATTHEW LOVE** in NOAA's National Centers for Environmental Information, won for their development of a 5-day tutorial in coastal digital elevation modeling for tsunami preparedness, which took place at the University of Victoria in Canada. Development of this tutorial was an extensive effort as Carignan and Love had to create it from scratch and communicate complex technical procedures in a short amount of time. Their course covered a challenging scientific issue, the modeling of tsunami waves: Tracking powerful, landward-moving waves involves a sophisticated integration of both land-based topographic data and ocean-based bathymetric data into one seamless data set. The workshop participants, who discovered the extremely complex, detailed, and time-consuming task of this process, gave Carignan and Love outstanding reviews for the training.

In one letter of support, a Canadian ocean sciences leader wrote: "I strongly believe that the work from Matt and Kelly was the critical element needed to forge collaborations between Canada and United States on tsunami safety and preparedness matters."

SANDY STARKWEATHER in NOAA's Physical Sciences Division, won for her leadership and coordination of the Interagency Arctic Research Policy Committee's Arctic Research Plan. This work involved collecting input and feedback from numerous sources across multiple agencies, and it resulted in the December 2016 release, by the Executive Office of the President, of a 5-year plan. That plan serves to advance research in areas of common interest across the Arctic research community at all levels, including Federal, State, local, tribal, academic, non-governmental organization, and industry.

"Starkweather worked to develop the structure for the plan, to assemble input and feedback from numerous sources, to host public discussion sessions, and to ensure that the document was produced in a timely fashion," her nominator wrote. "Her strong facilitation skills, collaborative abilities, and dedicated work were critical for the successful production of this important national plan."

CIRES Medals

CIRES scientists are often integral to NOAA award-winning science and engineering teams but cannot be given certain federal awards, such as the prestigious Department of Commerce Gold

and Bronze medals. The CIRES Director recognizes the extraordinary achievements of CIRES scientists working in partnership with federal colleagues.

CIRES Gold Medal for scientific/engineering achievement, 2017

GILBERT COMPO, PRASHANT SARDESHMUKH, and CHESLEY MCCOLL were part of a team in NOAA's Physical Sciences Division recognized with a Department of Commerce Gold Medal in 2016. Compo, Sardeshmukh and McColl and NOAA's Jeff Whitaker created the 20th Century Reanalysis, a pioneering reconstruction of global weather and extremes using only surface pressure observations. The Department of Commerce's Gold Medal recognizes distinguished performance characterized by extraordinary, notable, or prestigious contributions, but it can only be used to recognize federal employees. CIRES awards CIRES Gold Medals for team members critical to award-winning work.

CIRES Gold Medal for scientific/engineering achievement, 2017

ALYSHA REINARD, MICHELE CASH, JEFF JOHNSON, MICHAEL BUREK, TOM DEFOOR, RICHARD GRUBB, RATINA DODANI, WILLIAM ROWLAND, PAUL LOTO'ANIU, MEG TILTON, and STEFAN CODRESCU were part of a team awarded a Department of Commerce Gold Medal in 2016 for their work on the Deep Space Climate Observatory mission, dedicated to space weather. The CIRES scientists were critical to a team from the National Weather Service and the National Environmental Satellite, Data, and Information Service. The group was recognized for deploying the first operational space weather environmental spacecraft to provide storm warnings that protect the Nation's critical infrastructure.

CIRES Bronze Medal for scientific/engineering achievement, 2017

Many CIRES scientists were part of a multi-institutional team that won a Department of Commerce Bronze Medal in 2017, for the El Niño Rapid Response Field Campaign. Federal and CIRES scientists in the Physical Sciences Division of NOAA, the Aircraft Operations Center, and the NOAA ship *Ronald H. Brown* were involved in the mission.



REID Scholarship Award, 2017

NEESHA SCHNEPF in NOAA's National Centers for Environmental Information (NCEI), is this year's recipient of the George C. and Joan A. Reid Award.



Made possible by the Reids' generous contribution to an endowed scholarship fund, the Reid Award celebrates intellectual contributions to CIRES and leadership within the broader University of Colorado Boulder community.

George Colvin Reid (1929–2011) was an eminent atmospheric scientist who pioneered research into critical environmental issues such as stratospheric ozone depletion and global climate change. Always a progressive thinker, he was one of the initial four fellows who founded the Cooperative Institute for Research in Environmental Sciences.

Joan A. Reid was one of the first women to enroll in the University of Colorado School of Law. She spent most of her career with the nonprofit Rocky Mountain

Mineral Law Foundation, and was a frequent community volunteer, an avid outdoorsperson, and with her husband George, an inveterate world traveler.

Schnepf works in the NOAA NCEI geomagnetism group and is a PhD student in the University of Colorado Boulder's Department of Geological Sciences. She is advised by CIRES scientist Manoj Nair (NOAA NCEI) and CIRES Fellow Anne Sheehan (Geological Sciences). Both mentors describe her as exceptional.

Schnepf has already published several papers in her research field—the magnetic field associated with oceanic flow, and using variations in that field to determine more about issues such as tsunami propagation, the electrical structure of the lithosphere, and the circulation of ocean water. She is collaborating with international scientists on research projects and has helped to organize a geomagnetism course that brought together colleagues from the CU Boulder campus and NOAA's geomagnetism group. Schnepf also has helped to organize three national conferences for women in physics, including one in January here at the University of Colorado Boulder. She and her colleagues brought together female undergraduate physics majors from throughout the western United States, for three days of keynote talks, networking, career workshops, and tours.

Neesha's geomagnetism research connects a variety of CIRES research from space weather to solid earth sciences to ocean circulation and climate change. "She is an emerging star in the field of geophysics, has a strong publication record, is active in outreach, and has my highest recommendation," one of her nominators wrote.

NOAA Research Employee of the Year, 2017

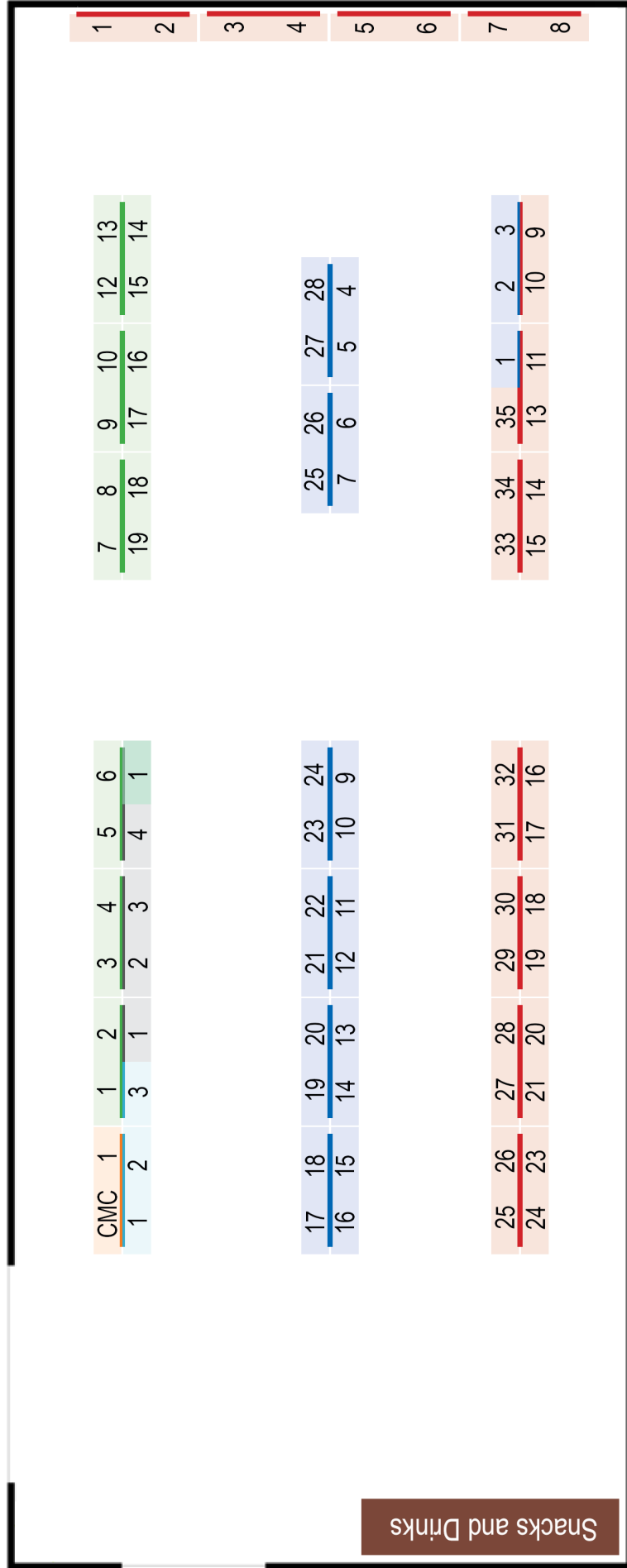
CIRES' DON MURRAY, DAN WOLFE, PAUL E. JOHNSTON, DAVE COSTA, LESLIE HARTTEN, and DARREN JACKSON in NOAA's Physical Sciences Division, were part of a NOAA team recognized with the NOAA Research Employees of the Year award, not available to non-federal scientists. The group of federal and cooperative institute scientists was honored for rapidly implementing and supporting a complex, multi-platform, multi-organizational field campaign to observe a rare, high-intensity El Niño event in the central, equatorial Pacific.

Presidential Early Career Award for Scientists and Engineers Award, 2017

ANNE PERRING in NOAA's Chemical Sciences Division, was awarded a PECASE in early 2017, one of 102 young scientists and engineers to receive this recognition. The PECASE is the highest honor bestowed by the U.S. government on early career science and engineering professionals. Perring's research has focused on characterizing and understanding atmospheric particles ("aerosols") and how they affect climate and air quality. She also works to understand "bioaerosols" (bacteria, fungi, and pollen in the air), which can affect cloud formation, rain, snow, and human health.

CIRES 2017 Rendezvous Poster Session Floorplan UMC Terrace Pavilion

See poster abstracts here: ciresevents.colorado.edu/rendezvous/poster-abstracts

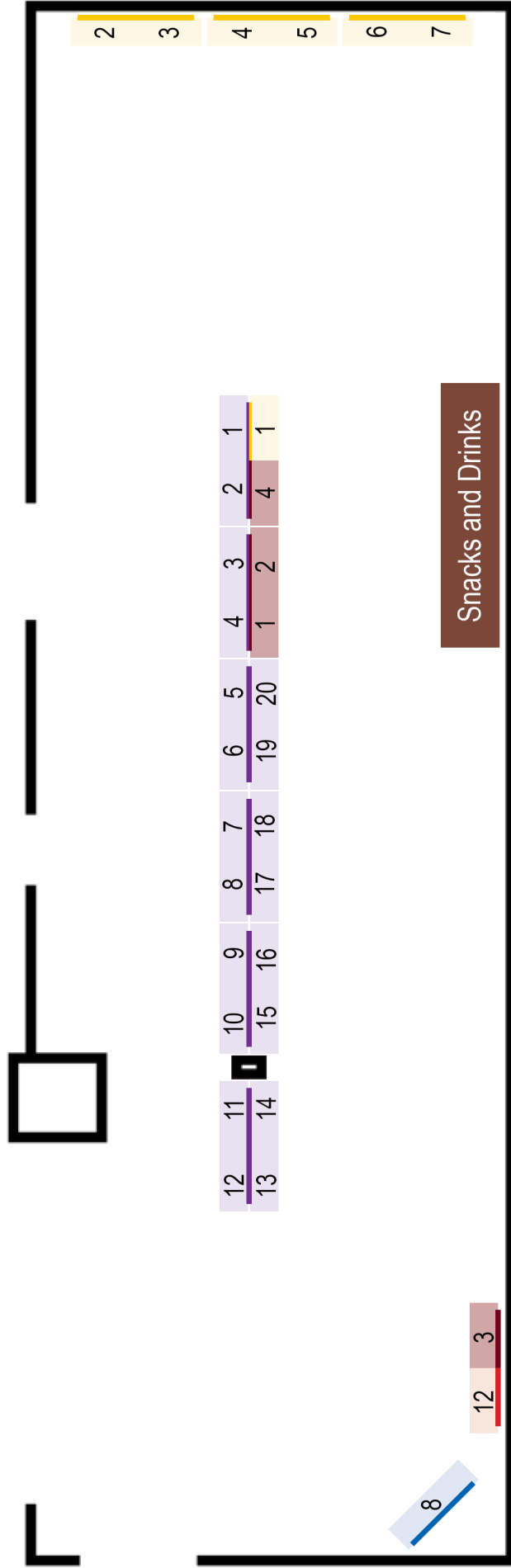


- Administration
- Environmental Chemistry
- Ecosystem Science
- Western Water Assessment
- Center for Science & Technology Policy Research
- Weather and Climate Dynamics
- Environmental Observations, Modeling, & Forecasting

CIRES 2017 Rendezvous Poster Session Floorplan

UMC Aspen Room

See poster abstracts here: ciresevents.colorado.edu/rendezvous/poster-abstracts



**Environmental Observations,
Modeling, & Forecasting**

Weather and Climate Dynamics

Cryospheric and Polar Processes Division

Solid Earth Sciences

Education and Outreach

Rendezvous 2017 is brought to you by your CIREM MEMBERS' COUNCIL (CMC). The Council represents the interests of all CIREM members with respect to CIREM governance, scientific direction, and the day-to-day workplace environment. As a representative group made up of CIREM members, the council is tasked with:

- Representing the concerns of the CIREM membership by bringing issues to the attention of the CIREM administration.
- Working to improve the lines of communication within and among all CIREM units.

- Providing a means of member participation in CIREM governance, and a voice on committees and working groups, which form the core of that governance.
- Contributing to the process that determines the CIREM research direction and scientific themes.
- Fostering a positive workplace environment and Members' connections with CIREM by facilitating Members' understanding of their roles within CIREM.
- For more information, see <http://insidecires.colorado.edu/members/> or contact your representatives:



Matthew Price/CIREM

Back row, left to right: Patrick Veres (plaid shirt), Eric James, Robin Moser, Elizabeth Russell, Chance Sterling, Chelsea Thompson, Eric Adamson, Nate Campbell

Front row, left to right: Amanda Morton (orange sweater), Carrie Morrill, Mistia Zuckerman, Antonietta Capotondi, Mimi Hughes

For more information, see <http://insidecires.colorado.edu/members> or contact your representatives:

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Officers

Chair: Chance Sterling
 Vice Chair: Mimi Hughes
 Secretary: Mistia Zuckerman
 Fellows/Executive Committee Reps: Kathy Lantz, Carrie Morrill

The CIREM Members' Council provides the opportunity for service, as well as career enhancement, benefiting representatives and constituents alike. How can you as a CIREM Member get involved?

- Share your thoughts and concerns with your Members' Council representative
- Attend the monthly Members' Council meeting
- Consider serving as a representative on the Members' Council

**Help us make the CIRES Rendezvous even BETTER next year
by answering a few quick questions:**

<https://www.surveymonkey.com/r/CIRESRendezvous2017>

Thank you very much, from the CIRES Members' Council.

