



CZOs at AGU 2017

We would like to congratulate four members of our CZO community for being honored at the 2017 American Geophysical Union (AGU) Fall Meeting held in New Orleans: David Breshears (University of Arizona) and Gregory Tucker (University of Colorado Boulder) were named new AGU fellows. Roger Bales (University of California, Merced) was named the 2017 John F. Nye Lecturer from the AGU Cryosphere Focus Group. His talk "Making up for lost snow: lessons from a warming Sierra Nevada" is now available to [watch online](#). Lastly, Ravindra Dwivedi (University of Arizona) received the Horton Research Grant from the AGU Hydrology Section. The CZO program held its annual booth in the Exhibit Hall, annual breakfast with NSF, and a town hall. The program was well represented by more than 170 posters and presentations related to CZO science. A list of these presentations and posters is available at <http://criticalzone.org/national/news/story/czos-at-agu-2017/>. We look forward to next year's meeting in Washington, D.C.



CZO Town Hall

The CZO program hosted a town hall "Critical Zone Observatories: Platforms for Collaborative Science" during the 2017 AGU Fall meeting. Similarly to past CZO town halls, it was an opportunity for the greater Earth Surface research community to provide input and feedback to the U.S. CZO program. More than 170 participants attended the meeting that focused on the program's future since current U.S. CZO Cooperative Agreements with NSF end in FY2018. Pam Sullivan (University of Kansas), a former Shale Hills CZO post-doc, began with an enthralling presentation of knowledge and ideas generated during the June 2017 CZO Science Meeting held in Arlington, VA. This information was published in a white booklet, "New Opportunities for Critical Zone Science." The booklet is available to view at <http://criticalzone.org/2017-white-booklet>. Sullivan relayed CZ knowledge learned over the last decade, compelling CZ questions for the coming decade, a vision for the next generation of CZ approaches and scientists, and CZ education and outreach initiatives. NSF CZO Program Officer Richard Yuretich then spoke about NSF funding opportunities available for CZ science and fielded questions from the community. A few NSF programs he suggested include Integrated Earth Systems (IES), Innovations at the Nexus of Food, Energy, and Water Systems (INFEWS), and Prediction of and Resilience against Extreme Events (PREEVENTS). Yuretich explained that although there is uncertainty in the federal budget, NSF is working on a solicitation related to CZ science to be announced in the first half of 2018. NSF remains open to feedback from the community.



CZO Spotlight: Earth's skin is an interdisciplinary laboratory

PHYSICS TODAY



Earth's skin is an interdisciplinary laboratory
Toni Feder

In the January 2018 issue of *Physics Today*, writer Toni Feder explores the scope of CZ research in the article, ["Earth's skin is an interdisciplinary laboratory."](#) As the U.S. CZO program faces current funding uncertainty, the article describes how the NSF-funded program has developed and operated over the last decade. During this time, CZ research has also grown worldwide with CZO networks in France, Germany and China. A number of perspectives from CZ researchers working with these networks were introduced to highlight the broader implications of CZ science. One major aim of these networks is to influence policymaking around issues of water management, natural disasters, soil degradation from agriculture, and the impacts of climate and land-use change. U.S. CZOs have been able to observe the occurrence and aftermath of events such as hurricanes, wildfire and drought. European CZOs have made efforts to tighten links with each other and with socioecological research sites to further strengthen the interdisciplinary nature of CZ science. The article notes that NSF plans to continue CZ research and observatories but would like to make some changes to how the program is run and find ways to broaden participation. Read the full article at [Physics Today](#).

3rd International CZO Workshop

The 3rd International CZO Workshop, funded by the CZO Science Across Virtual Institutes (SAVI) project, was held on December 10, 2017 in New Orleans prior to the AGU Fall Meeting. Building off two previously held workshops, the goal of the workshop was to further develop a coordinated strategy for advancing and funding an international cooperative program in CZ research with a focus on societally relevant aspects of three themes identified in previous workshops: 1) concentration-discharge relations, 2) carbon flux balances for soil organic matter, and 3) measuring and predicting spatial variations in CZ architecture. The workshop began with an overview by Tim White (PSU) of past SAVI workshops and upcoming opportunities. Representatives from international CZ science networks provided updates including Michael Mirtl (iLTER), Nicolaus Arnaud (French LTER: OZCAR CZO & Zone Atelier LTSE), Johan Huisman (TERENO), Andrew Binley (UK/China CZOs) and William McDowell (U.S. CZOs). The 45 workshop participants then discussed available international funding and the possible barriers and strategies of each moving forward. The workshop concluded with participants breaking into the three thematic working groups to continue strategizing for 2018.



2018 Events

- [LTER Synthesis Webinar Series](#), January 11-June 7, Online
- [CZO-LTER-NEON-ISMIC Joint Modeling Workshop](#), February 13-15, Boulder, CO
- [CZO SAVI International Scholars Program deadline](#), March 12
- [GSA Northeastern Section Meeting 2018](#), March 18-20, Burlington, VT
- [CZO SAVI Summer Interns Program deadline](#), March 26
- [CZO SAVI & French OZCAR Scholars Program deadline](#), March 26
- [GSA Joint Section Meeting 2018](#), May 15-17, Flagstaff, AZ
- [Goldschmidt 2018](#) (Abstracts due March 30), August 12-17, Boston, MA

