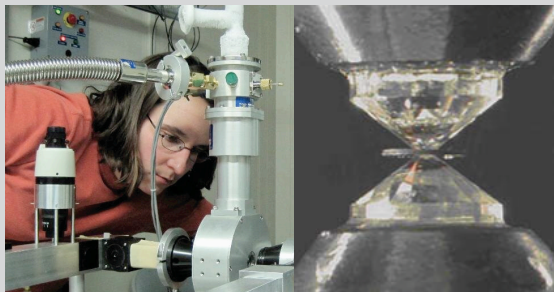


# COMPRES

CONsortium for Materials Properties Research  
in Earth Sciences



Newsletter  
May 2017

## New National Science Foundation (NSF) Cooperative Agreement awarded to COMPRES for 2017-2022

We are pleased to announce that the NSF has awarded COMPRES a new Cooperative Agreement on May 16, 2017. The new award covers the period 2017-2022 (aka COMPRES IV). The award is from Instrumentation and Facilities (IF) of the Division of Earth Sciences (EAR) in the Directorate for Geosciences (GEO). This year marks the 15th anniversary of COMPRES and we now look forward to the coming five years of enabling Earth Science researchers to conduct the next generation of high-pressure science on world-class equipment and facilities. Many thanks to the COMPRES Executive Committee, Facilities Committee, EOID Committee, sub-award PIs, and the COMPRES community for contributing to a successful renewal proposal!



**NSF EAR-1661511 PI: Carl Agee, University of New Mexico**

Sub-awards: Arizona State, George Washington U., Stony Brook U., UC Santa Cruz, UC San Diego, U. Chicago, U. Hawaii, U. Illinois

## New COMPRES Facilities Under Construction at National Synchrotron Light Source-II (NSLS-II), Brookhaven National Lab

Two new COMPRES facilities are currently under construction at the recently opened NSLS-II, and we expect that both facilities will be open to our user community in early 2018.

NSLS-II Beamline **Frontier Infrared Spectroscopy (FIS)** Facility for Studies under Extreme Conditions will replace and enhance the COMPRES IR operations previously installed at the NSLS beamline U2A. The infrared beamline is among the high-priority "NextGen" beamlines already funded and currently under construction at the NSLS-II. The beamline is scheduled to deliver beam in early 2018, and will provide a facility dedicated to high-pressure infrared (IR) measurements using the diamond-anvil cell, and offer the flux and spatial resolution necessary to study volatiles in challenging samples from nature requiring micrometer spatial resolution. **Contact for more info: Dr. Zhenxian Liu (zxliu@bnl.gov)**

NSLS-II Beamline **X-ray Powder Diffraction (XPD)** features a dedicated multi-anvil press (MAP) and replaces COMPRES MAP operations previously at NSLS beamline X17, but with monochromatic beam allowing angle dispersive x-ray diffraction and imaging capabilities. The XPD beamline is one of the "First Generation" beamlines that has been built at NSLS-II, and we estimate a start of the full user operation of the multi-anvil press in early 2018. Research will be in the areas of rheology and ultrasonic sound velocity measurements at high pressures and temperatures. **Contact for more info: Dr. Donald Weidner (donald.weidner@stonybrook.edu) and Dr. Matthew Whitaker (matthew.whitaker@stonybrook.edu)**



FIS cabin under construction



Offline IR Lab



MAP at XPD



NSLS-II

# COMPRES Annual Meeting July 9-12, 2017

We would like to announce that the registration and housing webpage for the 2017 COMPRES Annual Meeting (July 9 – July 12) is now live: <http://compres.us/events/annual-meeting/2017/registration-housing>.

Abstract Deadline: June 2, 2017

Registration Deadline: June 26, 2017

Please note that we are increasing the travel support for students this year, which should make it possible for students without other sources of support to attend the meeting. We are also extending our enhanced travel support to post-docs who do not have other funds to attend the meeting. For details: <http://compres.us/events/annual-meeting/2017/student-support>. Because of our commitment to fully supporting student and post-docs for travel/lodging, we will be asking regular professional attendees to cover their own lodging this year. Tamaya is offering single and double occupancy rooms at a significantly reduced rate for the COMPRES meeting. All meals and coffee breaks will be covered by COMPRES. As in past years, generous donations by our industry partners will cover the refreshments at the afternoon poster sessions each day.

We hope to see you in New Mexico this summer!

## COMPRES Workshops Pre-Annual Meeting July 9, 2017

Registration for two COMPRES workshops, to be held just prior (July 9) to the 2017 COMPRES Annual Meeting, is now live: <http://compres.us/event/compres-pre-meeting-workshops>. Registration Deadline: June 26, 2017

We are pleased to present two COMPRES Workshops at the Tamaya Resort on July 9 from 8 AM to 4 PM:

### “Software Toolkit”

Organizers: S.-H. Dan Shim, Cayman Unterborn (ASU), Przemyslaw Dera, Bin Chen (Univ. Hawaii), and Christopher McGuire (UCLA)

### “Ab Initio Tools for Hypothesis Testing”

Organizers: Wendy Panero (Ohio State) and Razvan Caracas (Ecole Normale Supérieure de Lyon)

Attendees of the workshops may take advantage COMPRES annual meeting room-rate for night of July 8. Students and post-docs who are attending the workshops, and have submitted meeting abstracts, are eligible for lodging reimbursement (\$69) for night of July 8.



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COMPRES 2016 Annual Meeting, Tamaya Resort, NM