



Welcome to the Fall 2023 CCMR Newsletter. We are excited to tell you about new instrumentation in the CCMR Facilities, a new program in Space Technology that will be co-led by the CCMR, and recent awards to members of the CCMR.

Don't forget to mark your calendars for the Members Meeting Lunch on December 6! Associate Vice Provost Julia Thom-Levy will report on the recommendations of the CCMR Task Force, and Prof. Zhiting Tian will describe her work on thermal transport in materials

**Frank Wise, Director**

## Upcoming Events



**DECEMBER 6TH 2023**  
**2023 CCMR**  
**MEMBER**  
**MEETING**

**AGENDA**

11:45am- Lunch Served (Serendipity)  
12:10am- CCMR Update: Frank Wise, Director  
12:15am- CCMR Task Force Report:  
Julia Thom-Levy  
12:30am- SCIENCE IN THE CENTER:  
Prof. Zhiting Tian, MAE  
"Exploring Thermal Transport:  
A Materials-Centric Approach"

*RSVP not required, but  
welcome*

## CCMR Staff News

The CCMR educational outreach team, **Nev Singhota** and **Mark Walsh**, after 24 and 10 years in the CCMR, respectively, will continue to support Center for Bright Beams (CBB) outreach and will soon transition to ACERT, the National Biomedical Resource for Advanced ESR Spectroscopy.

**John Wright**, who has diligently supported surface science research in the CCMR since 2022, has departed for local company Menlo Micro. We wish John the best of luck and appreciate his work with providing excellent research support and establishing our new Nexsa XPS system.

**Dimitrios Koumoulis** is a new staff scientist in ST Olin, supporting Ivan Keresztes and the NMR facility and also the CCMR polymer facility instrumentation. Dimitrios has been a research associate at the University of Kentucky, specializing in NMR instrumentation and experiments, and we're looking forward to having him join us at Cornell.

## New Instruments

The CCMR is excited to announce the addition of a new Zeiss Sigma 500 field emission scanning electron microscope (SEM) to the shared facilities. Zeiss's tradition of superior imaging continues with the Sigma 500, which boasts resolutions of 1 nm at 15 kV and 1.5 nm at 1 kV. The system is equipped with in-lens and side-mount secondary electron detectors, scintillating backscatter detector, energy dispersive x-ray detector (EDS), electron backscatter diffraction detector (EBSD), and a load lock for quick sample exchange. In addition, the Sigma has a larger vacuum chamber that will allow accommodation of larger samples as well as ancillary testing stages for in situ measurements. This SEM is located in Bard SB-58C. Those interested in training on the instrument should request access through the CCMR FOM system. Any questions should be addressed to Philip Carubia at [pmc228@cornell.edu](mailto:pmc228@cornell.edu).



The new Zeiss Sigma 500 SEM in its new home in Bard Hall, Room SB-58C.

## New Programs

### Cornell Leads NYS Consortium for Space Tech Development

The New York Consortium for Space Technology (NYCST) – a new initiative aimed at bolstering U.S. space technology research and manufacturing capabilities by uniting industry, academic, and government partners across New York State. Funding is a \$5 million grant from the Defense Manufacturing Community Support Program run by the U.S. Department of Defense and \$1.8 million in Cornell matching, the NYCST will improve facilities, provide small business assistance, and offer specialized training and education that will improve capabilities to design, build, test, integrate, and operate space technologies. Utilizing staff in the CCMR, CHES, and College of Engineering (MAE), NYCST will serve as a key location where consortium partners can access Cornell research capabilities and expertise for space technology development & testing. NYCST will use CCMR's Facility Online Manager (FOM) platform to manage instruments, and CCMR facility staff will support this effort. For more information, visit the [NYCST website](#).

"CCMR has long been dedicated to advancing technological growth and economic expansion through interdisciplinary collaborations. We look forward to helping to strengthen the national defense space technology industrial ecosystem through this new consortium," said [Frank Wise](#), CCMR director and the Samuel B. Eckert Professor of Engineering.



NEW YORK CONSORTIUM *for*  
**SPACE TECHNOLOGY**  
INNOVATION & DEVELOPMENT

## Awards and Recognition

**Two CCMR Faculty Members have been recognized for their contributions to their fields.  
Congratulations to Professors David Muller and Nozomi Ando!**

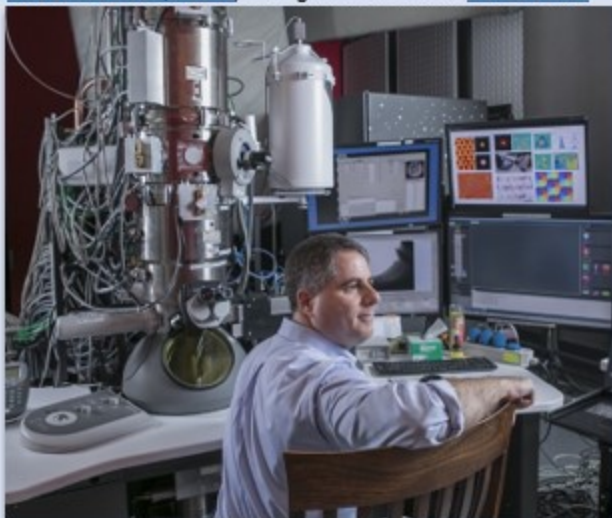
### **Prof. David Muller, AEP, receives two prestigious awards**

CCMR faculty member David Muller, the Samuel B. Eckert Professor of Engineering in AEP, was recently awarded two prestigious recognitions. He was awarded the [2023 John Cowley Medal](#), the highest award of the [International Federation of Societies for Microscopy \(IFSM\)](#).

This medal is only awarded once every four years, and it recognizes lifetime achievement in the fields of diffraction physics or microscopy.

Prof. Muller is also the 2024 recipient of the [Joseph F. Keithley Award for Advances in Measurement Science](#), which is awarded each year by the APS (American Physical Society).

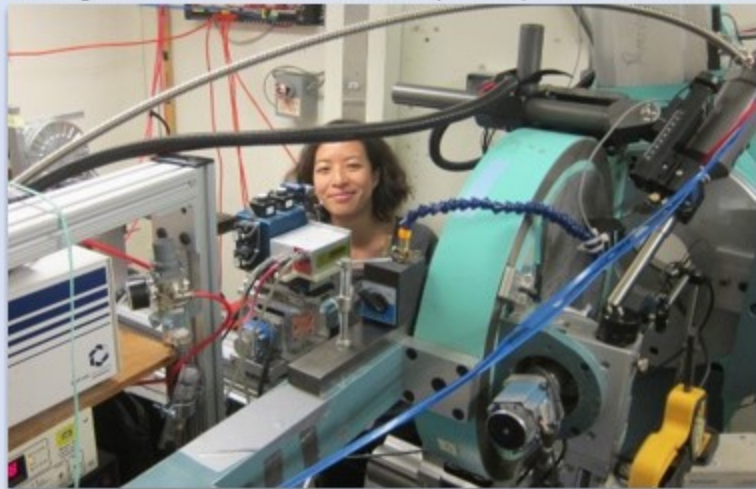
The APS recognizes outstanding achievement in research, education, and public service, and each recipient was chosen from hundreds of nominees. David will be recognized for this award at APS meetings, including the March and April Meeting. [Click here](#) for more info about the APS Spring Prizes.





## Prof. Nozomi Ando, CCB, wins the 2024 Mildred Cohn Young Investigator Award

CCMR faculty member Prof. Nozomi Ando was recently awarded the [Mildred Cohn Young Investigator Award](#). This award, which is from the [American Society for Biochemistry and Molecular Biology \(ASBMB\)](#), was given to Prof. Ando to recognize her contributions to the fields of protein dynamics. This award also recognizes Prof. Ando's dedication



to DEI in STEM. To read more about Nozomi's research, [click here](#).

*The Cornell Center for Materials Research (CCMR) is an interdisciplinary research center at Cornell University dedicated to advancing materials science research and innovation.*

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