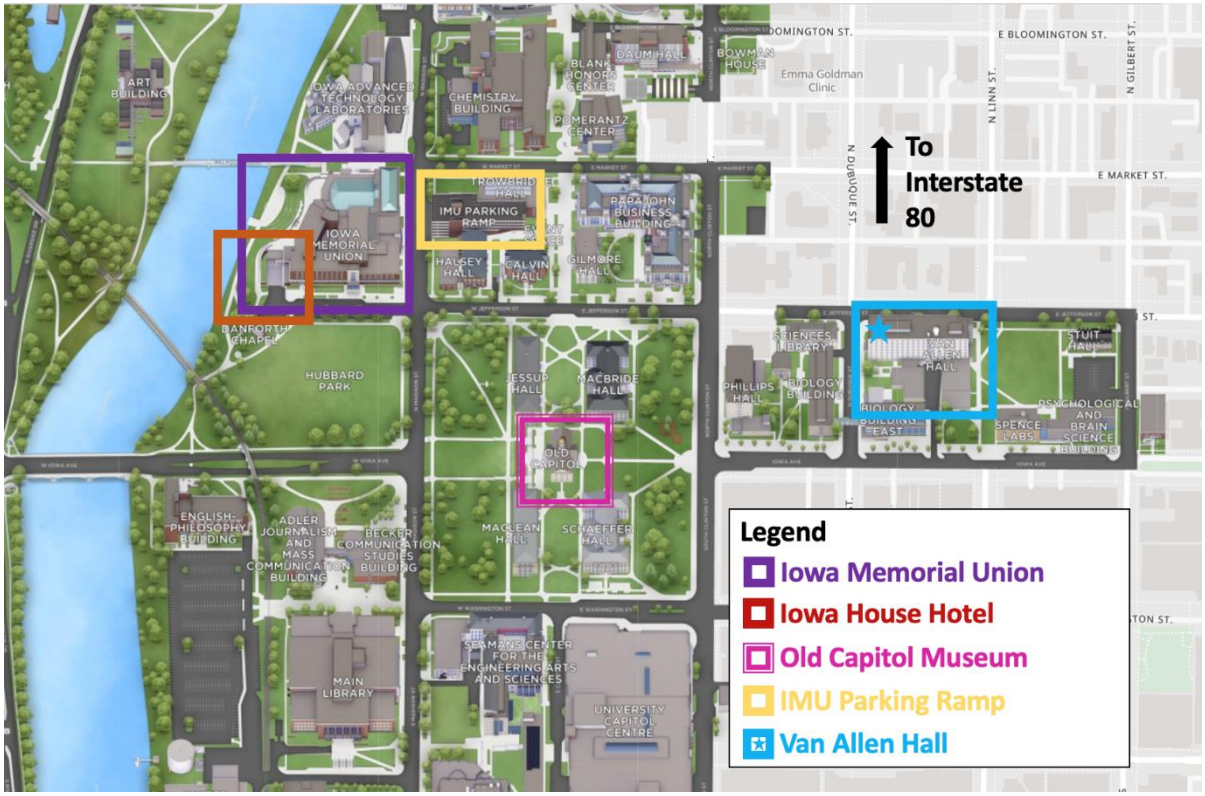
Iowa CUWiP Schedule of Events

Most events will occur in the Department of Physics and Astronomy's home, Van Allen Hall (VAN), located on Iowa's campus and designated by a blue box with a star on the map below. Special events will be located in the historic Old Capitol Building and Iowa Memorial Union (IMU) which are designated by pink and purple boxes on the map. Lodging will be provided in the Iowa House Hotel (IH-IMU) located on the southwest end of the IMU and designated with a dark red box.



Friday January 20th, 2023

Time	Event	Location
2:00-5:30 PM	Check-In	Iowa House Hotel (IH-IMU)
4:30-6:30 PM	Optional Lab Tours	Groups Gather in Lecture Room 1 (LR1) Lobby VAN
6:30-8:00 PM	Dinner and Reception with welcome from APS Representative and Local Organizing Committee	Old Capitol Building
8:15-9:00 PM	Physics Show	LR1 VAN
9:00-11:00 PM	Game/Movie Night	310 VAN

Saturday January 21st, 2023

Time	Event	Location
7:00-8:30 AM	Breakfast	Iowa House Hotel (IHH)
8:30-9:00 AM	Travel to VAN	Leave from IHH Lobby
9:00-10:00 AM	Inclusivity Panel	LR1 VAN
10:00-10:30 AM	Coffee Break	VAN Basement
10:30-11:15 AM	Group A Workshops and Panels	VAN 3rd and 4th Floor
11:25-12:10 PM	Group A Workshops and Panels	VAN 3rd and 4th Floor
12:15-1:00 PM	Lunch	LR1 Lobby VAN
1:00-2:30 PM	APS Keynote Speaker	LR1 VAN
2:30-3:00 PM	Coffee Break	VAN Basement
3:00-3:45 PM	Group B Workshops and Panels	VAN 3rd and 4th Floor
4:00-5:00 PM	Local Keynote Speaker **Dr. Taviare Hawkins**, St. Catherine University	LR1 (VAN)
5:00-5:30 PM	Travel to Iowa Memorial Union and Group Photo	Leave from LR1 Lobby (VAN)
5:30-6:45 PM	Poster Session and Information Tables	IMU Ballroom
7:00-9:00 PM	Dinner	IMU Ballroom
8:00-9:00 PM	Local Keynote Speaker **Dr. Fran Bagenal**, University of Colorado Boulder	IMU Ballroom
9:00-11:00 PM	Free Time with Board Games etc.	IMU Ballroom

Sunday January 22nd, 2023

Time	Event	Location
7:00-8:30 AM	Breakfast	Iowa House Hotel
8:30-9:00 AM	Travel to VAN	Leave from IHH
9:00-10:00 AM	Local Keynote Speaker **Amanda Acevedo**, Vedo Systems	LR1 VAN
10:00-10:25 AM	Coffee Break	VAN Basement
10:30-11:15 AM	Group B Workshops and Panels	VAN 3rd and 4th Floor
11:25-11:45 AM	Conference Debrief and APS Survey	LR1 VAN

11:45-12:00 PM	Closing remarks from Local Organizing committee	LR1 VAN
12:00-12:45 PM	Boxed Lunch To-Go	LR1 Lobby

Panels and Workshops

Group A

Title	Description	Location
Getting into Graduate School	A discussion of what graduate schools are looking for in their students, and how to be successful once you are admitted. Moderated by Cecilia Fasano.	TBD
Careers Outside of Academia	A look at just a few of the many paths outside of academia with those who have a physics background but now are in education, industry, and business. Moderated by Sarah Henderson.	TBD
NASA Mission Primer	University of Iowa has a historic record of being involved with many NASA missions to the sun and other planets. You will hear from some of the scientists involved in a number of these missions, discuss their various roles and how students can get involved. Moderated by Rachael Filwett.	TBD
CV vs Resume	A look at the differences between a CV and a Resume and how to make a good one that will help you land that job! Bring your laptop to work on your documents. Coordinated by Amanda Acevedo.	TBD

Group B

Title	Description	Location
Science and Society	A look at how science and society are meshed together, particularly a look at how to advocate for your science with those who make policy decisions and how to get involved with science communication. Moderated by Riley Troyer.	TBD
Navigating Majority Dominated Spaces	Many fields of science are still male dominated, meaning that many of us spend a lot of time in male dominated spaces. We may also experience many situations when we are not in the majority due to our race, sexual identity, disability status, or religion. This group will discuss the issues and situations that you have/may encounter. We will provide examples, discuss how to handle those situations, and how to be a good ally and stand up for others. Moderated by Allison Jaynes.	TBD
Communicating Your Research	Science uses a variety of mediums to communicate research, abstracts, posters, presentations, papers, elevator pitches, etc. Come to this workshop to get tips and tricks	TBD

	on how to put together effective presentations for your work. Coordinated by Firdevs Duru.	
Python Workshop	Python is a common coding language for many types of scientific disciplines. Bring your laptop for this hands-on workshop that will walk you through some of the introductory skills you need to get started in coding. Moderated by Charlotte Christensen.	TBD

Inclusivity Panel

Our three local keynote speakers will speak about their experience in their respective fields, how they have grown and developed over the years, and how we can work together to make our community a more welcoming and inclusive space. Dr. Allison Jaynes will moderate.

Local Keynote Speaker Biographies

Taviare Hawkins

Professor of Physics, St. Catherine University
Chair, Math and Sciences Division, St. Catherine University

Prof. Taviare Hawkins is currently a Professor of Physics and Chair of the Math and Sciences Division at St. Catherine University. Prior, she was chair and professor of physics at the University of Wisconsin La Crosse (UWL). UWL grants the most undergraduate degrees in physics from a primarily undergraduate institution. Before that, she completed her postdoc at the University of Massachusetts-Amherst in an experimental biophysics' lab. She attended graduate school at Syracuse University in New York, where she completed two MS degrees (in Computer Science and Physics) and a Ph.D. in Physics. She is an alumna of the University of Iowa, receiving her BS in Physics and minoring in African American Studies.

While at UWL, Prof. Hawkins ran a productive biophysics research laboratory and trained over 50 undergraduates in research. About half have gone on to graduate school. Her research involves working on problems at the intersection of physics, mathematics, engineering, biology, and chemistry. Dr. Hawkins is also very involved in activities that increase the number of women and other underrepresented groups in physics and astronomy, promote the sciences, and improve science students' retention and graduation rates. She uses her voice at the national and international levels to serve several professional societies. Dr. Hawkins is vice-chair elect on the American Physical Society's (APS) Forum on Outreach and Engaging the Public and is an outgoing member-at-large on the Division of Biology executive committee. She is a member of the Biophysical Society (BPS) nominations committee and serves as an elected counselor on the Council on Undergraduate Research's Physics and Astronomy Division (CURPA).

Fran Bagenal

Research Scientist, Laboratory of Atmospheric and Space Physics

Dr. Fran Bagenal was born and grew up in England. She studied Physics and Geophysics at the University of Lancaster. In 1976, inspired by NASA's missions to Mars and the prospect of the Voyager mission, she moved to the US for graduate study at MIT. Her 1981 PhD thesis involved analysis of data from the Voyager Plasma Science experiment in Jupiter's giant magnetosphere. She spent 1982-1987 as a post-doctoral researcher in space physics at Imperial College, London. Voyager flybys of Uranus and Neptune brought her back to the US and she joined the faculty at the University of Colorado, Boulder in 1989. She was professor of Astrophysical and Planetary Sciences until 2015 when she chose to stop teaching and focus on NASA's New Horizons and Juno missions. She remains a Research Scientist at the Laboratory of Atmospheric and Space Physics.

In addition to the Voyager mission, Dr. Bagenal has been on the science teams of the Galileo mission to Jupiter and the Deep Space 1 mission to Comet Borrelly. She edited Jupiter: Planet, Satellites and Magnetosphere (Cambridge University Press, 2004). She's on the plasma teams of the first two New Frontiers missions: the New Horizons mission that - after a 9.5-year flight - flew past Pluto on 14th July 2015 and Juno that went into orbit over the poles of Jupiter on 4th July 2016.

In 2021 she was elected to the National Academy of Sciences. She took the honor as an opportunity to pay back to the community by co-chairing a study on Increasing Diversity and Inclusion in the Leadership of Competed Space Missions.

Amanda Acevedo

President, Vedo Systems

Ms. Amanda Acevedo has over 25 years of experience in software development, integration, test and verification, project management, cross program integration and technical leadership. Currently, she is the owner of Vedo Systems where Amanda leads a growing team of software engineers who specialize in developing high performance, reliable software solutions for human rated spacecraft. Major efforts at Vedo Systems include developing & verifying onboard flight software for NASA's Orion program and providing software, modeling, and simulation systems engineering expertise for NASA's Gateway program. Prior to her work at Vedo Systems, Amanda worked on multiple NASA programs including the Space Shuttle, X-38, and AERCam, as well as several commercial software development projects in the aerospace, energy, and medical sectors.

Examples of her past projects include developing a 6 degree-of-freedom simulation for the X-38 spacecraft, building a display and control interface for an application to monitor patient safety while in a hospital setting, an acoustic ranging project for an oil and gas application, and requirements development in support of a commercial space station module, Axiom. Amanda's technical skills have been honed through involvement in software development and integration efforts in support of the US Department of Energy, and NASA Johnson Space Center. She is an alumna of the University of Iowa's Physics & Astronomy department.

Optional Laboratory and Facility Tours

Several optional tours of the faculty laboratories and research facilities present at the University of Iowa are scheduled from 4:30 - 6:30 pm on Fri., Jan 20th. Tours will depart from Van Allen Hall (VAN) Lecture Room 1 Lobby. A list of tours and times is below.

- **4:00 - 5:00 pm: The Materials Analysis, Testing, and Fabrication (MATFab) Facility and Molecular Beam Epitaxy (MBE) Lab**
    - Check out a facility where advanced microfabrication takes place. The instrumentation and researchers working here make structures smaller than a human hair (< 10 micron) from a variety of materials and support projects across disciplines -- from medical device manufacture to infrared sensors, to diffraction gratings for astronomy.
- **3:00 - 4:00 pm: Space-flight Hardware Testing Facility**
    - The University of Iowa has a long history of building instruments for space, beginning with James Van Allen's experiment on Explorer 1 and through today with the NASA TRACERS mission. Come see a facility where Iowa researchers test equipment to ensure it can survive the harsh conditions of space and the ride to get there!
- **4:30 - 5:30 pm / 5:30 - 6:30 pm: Van Allen Observatory (VAO)**
    - Tour the rooftop observatory used by astronomy students at University of Iowa. The observatory consists of a 0.41m diameter Cassegrain reflection telescope, CCD camera, eight position filter wheel, and a 2048-channel digital spectrometer.
- **4:00 - 5:00 pm: The MAGIC Magnetometer Facilities**
    - Magnetometers, used to detect changes in the magnetic field, are a spectacularly useful instrument in geosensing and space weather, but our scientific capability for making these instruments is in danger. Come learn about both the colorful history of these instruments (with stories that include submarine detection, a "lost recipe," and a drawer full of ring cores) and new generation of instruments developed for space-flight at the University of Iowa.
- **4:30 - 5:30 pm: DeRoo X-ray Astronomical Instrumentation Lab**
    - Come by and see the research lab of Prof. Casey DeRoo. Prof. DeRoo specializes in building and testing astronomical instrumentation in early development. Highlights include a cleanroom facility specializing in the measurement of nanometer-scale height changes in optics and a prototype adjustable X-ray optic which moves when voltage is applied.