

OCTOBER 2021 NEWSLETTER

The four hundred and fifty ninth meeting of the American Chemical Society, Susquehanna Valley Section will be the [Wilkes University Catherine Bone Lecture](#) on Wednesday the 20th of October at 6:00 p.m. in Stark Learning Center 101. The guest speaker is Dr. William D. Phillips (Fellow at the Joint Quantum Institute, NIST, and University of Maryland). Dr. Phillips is a 1997 recipient of the Nobel Prize in Physics which he shared with Steven Chu and Claude Cohen-Tannoudji. The dinner honoring Dr. Phillips will follow the lecture at The Mary Stegmaier Mansion, 156 S. Franklin Street, Wilkes-Barre at 8:00pm.

“Time, Einstein and the coolest stuff in the universe”

William D. Phillips, PhD
Fellow at the Joint Quantum Institute,
National Institute of Standards & Technology, and
University of Maryland

At the beginning of the 20th century Einstein changed the way we think about Time. Now, early in the 21st century, the measurement of Time is being revolutionized by the ability to cool a gas of atoms to temperatures millions of times lower than any naturally occurring temperature in the universe. Atomic clocks, the best timekeepers ever made, are one of the scientific and technological wonders of modern life. Such super-accurate clocks are essential to industry, commerce, and science; they are the heart of the Global Positioning System (GPS), which guides cars, airplanes, and hikers to their destinations. Today, the best primary atomic clocks use ultracold atoms, achieve accuracies of about one second in 300 million years, and are getting better all the time, while a new generation of atomic clocks is leading us to re-define what we mean by time. Super-cold atoms, with temperatures that can be below a billionth of a degree above absolute zero, use, and allow tests of, some of Einstein's strangest predictions. This will be a lively, multimedia presentation, including exciting experimental demonstrations and down-to-earth explanations about some of today's hottest (and coolest) science.

BIOGRAPHY OF DR. PHILLIPS:

NIST Fellow William D. Phillips received the 1997 Nobel Prize in Physics “for development of methods to cool and trap atoms with laser light.” He shared the honor with Steven Chu of Stanford University and Claude Cohen-Tannoudji of the École Normale Supérieure in Paris, France. Bill Phillips was born in Wilkes-Barre, Pennsylvania, and spent his early years across the Susquehanna River in Kingston. Phillips graduated *summa cum laude* with a BS in Physics from Juniata College in 1970 and received his Physics Ph.D. at MIT in 1976. Dr. Phillips is currently serving as Physicist at the Joint Quantum Institute, National Institute of Standards and Technology and University of Maryland. He had previously held the position of Visiting Professor at Ecole Normale Superieure in Paris and Chaim Weizmann Postdoctoral Fellow at MIT. Dr. Phillips' research projects include "Laser Cooling & Trapping Neutral Atoms", "Atomic-gas Bose-Einstein Condensates" and "Quantum Information with Single-Atom Qubits". Phillips began his experiments with laser trapping and cooling shortly after he arrived in 1978 at the National Bureau of Standards (the agency that became NIST), with the intent of creating a more accurate atomic clock. Several of his innovations in the following years became landmarks in the field. These included a device using a laser along with a magnetic field to decelerate and cool an atomic beam (the “Zeeman slower”); demonstrating the first device that trapped electrically neutral atoms (a magnetic trap); and measuring a temperature far below that predicted by the accepted theory of laser cooling at the time (known as sub-Doppler cooling).

DINNER:

The lecture will be followed by dinner at 8:00 PM held at [The Mary Stegmaier Mansion](#), 156 South Franklin Street, Wilkes-Barre, PA 18701. Dinner attendees may park on Wilkes University surface lots in addition to Mansion parking (see directions below).

Dinner will include Hors D'oeuvres, Traditional Caesar Salad, Green Beans with Georgia Pecan Butter, Rice Pilaf with Asparagus, Peas and Prosciutto Rolls and Butter, Petite Dessert Display, and beverage service (Coffee, Tea, Iced Tea, Soda). Entrée choices include either Salmon Picatta, Grilled Steak Bistro, or Vegetarian Ravioli There will be a Cash Bar: \$5 Beer, \$6 Wine, \$7 Mixed Drinks, \$8 Top-shelf Mixed Drinks.

As a result of the generosity of Catherine Bone, our guests will be provided with dinner at no cost. However, due to COVID-19 capacity restrictions the total number of guests will be capped and reservations will be confirmed on a first-come, first-serve basis. Please RSVP for the event and dinner (noting your entree choice) to Gennie Singer (genevieve.singer@wilkes.edu) or 570.408.4750 by 4 p.m. Monday 11 Oct. 2021.

DIRECTIONS TO WILKES UNIVERSITY:

GPS: Wilkes University parking can be accessed at 141 S. Main St, Wilkes-Barre, PA 18702

Detailed directions can be found at <https://www.wilkes.edu/about-wilkes/planning-your-visit/directions-to-campus.aspx>

Take Exit 3 (River Street Exit), from PA Route 309N then make a left at traffic light. You are now on River Street. Immediately after turning left onto River Street, you will encounter the first of 8 traffic lights. Continue on River Street to the 8th light where you will turn left (east) onto W. Northampton Street. Continue on Northampton until you reach Main St. and turn right. You can park in the Parking #12 (141 S. Main St. next to the Karambelas Media and Communication Center/Sordoni Art Gallery). Additional parking can be found in Parking #8 (169 S. Main Street behind University Center on Main (UCOM) with entrance on W. South Street) and Parking #5 (84 W. South Street behind the Henry Student Center with entrances on S. River Street and S. Franklin Street).

The Mary Stegmaier Mansion



detailed campus map (<https://wilkes.university-tour.com/map.php>)

parking (<https://www.wilkes.edu/about-wilkes/planning-your-visit/parking-locations.aspx>)

SECTION NEWS:

2022 LOCAL SECTION ELECTIONS:

Nominations are due for the position of Chair-elect. If interested, please contact any [section officer](#). Look for your election ballot in October.

MARM 2022:



Save The Date:

The 50th Mid Atlantic Regional Meeting (MARM) will be held June 1-4, 2022. The meeting is hosted by the Trenton Local Section of the American Chemical Society. Check their website, marm2022.tcnj.edu, for more information.

NATIONAL CHEMISTRY WEEK:



NCW 2021 is October 17–23 and the theme is “Fast or Slow, Chemistry Makes It Go!” The Susquehanna Valley Section is once again collecting posters for this year’s event. If you know of a student in K-12 who would like to participate please contact Karen Castle at kcastle@bucknell.edu. The deadline for submissions is Wednesday, October 27. For further details, see the [website](#).

OPEN POSITIONS IN THE LOCAL SECTION:

Do you want to use your talents to help other chemists in the Susquehanna Valley section? Listed below are examples of positions that need to be filled by willing individuals along with websites that give organizing ideas:

- SVS Chair-Elect
This two-year position is the usual office taken on by local chemists who want to begin to become more involved in the local section.
- [Chemistry Olympiad](#) Chair
Administer Local Chemistry Olympiad Competitions in coordination with the National Chemistry Olympiad.
- WCC ([Woman Chemists Committee](#)) Chair
Help attract, retain, develop, promote, and advocate for women to positively impact diversity, equity and inclusion in the Society and the profession
- Project SEED ([Summer Experiences for the Economically Disadvantaged](#)) Coordinator
Coordinators are responsible for establishing programs, identifying mentors, recruiting students, fundraising, and organizing activities such as field trips
- CH&S ([Chemical Health and Safety](#)) Committee Chair
Help provide authoritative technical resources and mentorship in chemical health and safety for all
- SCC ([Senior Chemists Committee](#)) Chair
Help improve communication among senior chemists, increase the number of senior chemists’ groups and the level of their engagement within local sections, and encourage the involvement of senior chemists in programs focused on K-12 education, undergraduate networking, and mentoring
- CCEW ([Chemists Celebrate Earth Week](#)) Coordinator
Help promote the positive role that chemistry plays in the protecting our planet (recyclable plastics, cleaner-burning fuels, phosphate-free detergents, environmental monitoring, and green chemistry initiatives).

If you are interested, contact the section Chair (Allison Saunders, saundersa@lycoming.edu), Secretary (Ronald Supkowski, ronaldsupkowski@kings.edu) or any member of the Susquehanna Valley Section leadership team ([executive committee](#), [committee chairs](#), [liaisons](#)).

LOCAL STEM COMPETITIONS:



A list of all STEM competitions for high school students is posted on our [website](#). If you have any questions about the contests or have suggestions for others, please contact either the person indicated on the site or the section webmaster, Ron Supkowski at ronaldsupkowski@kings.edu or 570-208-5900 x5733

NATIONAL ACS NEWS:

COVID-19

ACS is committed to helping combat the global COVID-19 pandemic with initiatives and free resources. Learn More at their website acs.org/content/acs/en/covid-19

ACS LEGISLATIVE ACTION NETWORK:

Legislation that may impact the chemical enterprise comes before Congress on a regular basis, and the ACS is committed to keeping its members informed and encouraging them to weigh in on high-priority issues. To see the position of the ACS on many legislative issues visit the ACS LAN website: www.acs.org/content/acs/en/policy.html

To find out how to become more active in ACS advocacy activities, see the website:

www.acs.org/content/acs/en/policy/memberadvocacy/advocacy-tools.html

To join ACS' grassroots legislative advocacy network, ACT4CHEMISTRY, which will allow you to stay up to date on policy issues and contact legislators on behalf of chemistry and chemists, go to their website, follow the Act4Chemistry Twitter account, or email advocacy@acs.org.

Act4Chemistry Advocacy Issues. To take action go to the website

acs.org/content/acs/en/policy/memberadvocacy/issues.html#/takeaction

Ask Congress to support the ACS Priorities in U.S. Innovation Legislation

The House of Representatives and Senate are working on legislation that will shape federal research for the next several years. The House of Representatives has passed the National Science Foundation (NSF) for the Future Act, H.R. 2225, and the Department of Energy (DOE) Science for the Future Act, H.R. 3593. Meanwhile, the Senate has passed the U.S. Innovation and Competition Act (USICA), S. 1260. We ask you to raise ACS' priorities with your Representatives and Senators as they forge a compromise legislative vehicle.

Ask Congress to support the Research Investment to Spark the Economy (RISE) Act

We encourage you to ask that your members of Congress cosponsor and support the Research Investment to Spark the Economy (RISE) Act, H.R. 869 and S. 289. These bipartisan bills would authorize supplemental funding for a variety of research agencies.

Support the Chemical Safety Board

The CSB is an independent federal agency that saves companies, universities, and local communities billions of dollars and countless lives by helping them prevent catastrophic incidents. Despite its great value, the administration has called for \$9.4 million for FY 2019 to be allocated to CSB, specifically for its elimination. Join us in asking appropriators and other members of Congress for their continued support of the CSB and its mission to protect workers and the public.

Keep Science Funding Strong

Congress and the White House are working to complete the appropriations process for fiscal year 2021. Join us in asking appropriators for a strong and predictable boost in federal funding for scientific research.

Congressional Chemistry Caucus

The Caucus' mission is to educate Members of Congress, their staff, and the public on the benefits of chemistry in today's society and its economic impact on our country. If you do not see your Representative or Senators represented in the Chemistry Caucus ask them to join.

JOIN THE ACS:

If you know of anyone who would benefit from being a member of the American Chemical Society, please direct them to the membership website:

www.acs.org/content/acs/en/membership-and-networks/acs/join.html

NATIONAL MEETINGS:



Spring 2022 ACS National Meeting

The spring 2022 national meeting, “Bonding Through Chemistry” will be held In-Person and Virtual. The meeting will be held March 20-24, and the in-person event will take place in San Diego, CA. Abstract submission is now open through Monday October 11. See the [website](#) for more information.

CHAS Workshop: Empowering Academic Researchers to Strengthen Safety Culture October 17, 2021

This 4-hour workshop is primarily directed at frontline researchers in academic institutions: graduate students, postdoctoral scholars, and undergraduate students. Faculty and safety staff are also very much encouraged to participate. Workshop goals are to 1) Educate participants about the value of risk assessment 2) Guide participants towards gaining awareness of safety culture messages from the leadership at their institutions 3) Empower participants to expand their safety networks and develop laboratory safety teams. See [website](#) to register.

BCCE 2022

The 27th Biennial Conference on Chemical Education will be held at Purdue University in West Lafayette, Indiana in the summer of 2022. See the [website](#) for more details.

Susquehanna Valley Section Web Page: <http://departments.kings.edu/SusquehannaValleyACS>

Please send any comments about the monthly newsletter to Ron Supkowski, Section Secretary
King's College 131 N River St Wilkes-Barre PA 18711 ronaldsupkowski@kings.edu
