

## MEET OUR NEW COLLEAGUES:

Philip Boccabella, NSLS-II  
Ronald Bolosan, NSLS-II  
Justin Goodrich, NSLS-II  
Wei He, CMPMS  
Junsik Mun, CFN  
Milton Munoz, NSLS-II  
Anil Rajapitamahuni, NSLS-II  
Shivani Sharma, NSLS-II  
Ganesh Tiwari, NSLS-II  
Shan Yan, IS  
Youngseok Yu, CFN  
Yong Yuan, Chemistry  
Chris Zegel, NSLS-II  
Chenyu Zhou, CFN



*Jim Misewich*

# ENERGY AND PHOTON SCIENCES DIRECTORATE NEWSLETTER

## JULY 12, 2022

Volume 3, Issue 3

### A MESSAGE FROM JIM

This newsletter begins with the celebration of the 75th year of Brookhaven Lab's existence. Brookhaven Lab began in 1947 and has grown and diversified in its scientific mission since then. As described in the "[This is Brookhaven Lab](#)" video "Brookhaven National Laboratory delivers discovery science and transformative technology to power and secure the nation's future. Primarily supported by the U.S. Department of Energy's (DOE) Office of Science (SC), Brookhaven Lab is a multidisciplinary laboratory with seven Nobel Prize-winning discoveries, 37 R&D 100 Awards...." With our focus on the challenges of our workplace, we lose track sometimes of the profound role of the SC laboratories in the scientific discoveries of this country and the resource we have provided to scientific and technological discoveries here and worldwide. It is truly an honor to be associated with Brookhaven Lab. For all those at Brookhaven Lab, from the newest through to you who spent most of your career here, I salute you. Brookhaven Lab's success rests on the cumulative efforts of all who work here in our many roles, both scientific and support. I urge you to join in the celebration of Brookhaven Lab's 75 years, the upcoming Brookhaven "Bash," which includes free 75th anniversary T-shirts, free food from food trucks and vendors, live music by The Uptones with colleagues in the Lab's Music Club, a [showcase of BERA clubs](#) and [employee resource groups](#), prizes, and more.

I want to thank you for your commitment to performance goals for Diversity, Equity, and Inclusion (DEI) which were initiated in the Energy and Photon Sciences Directorate (EPSD). I would also like to take this opportunity to focus on these DEI performance goals. Noel Blackburn, our Chief DEI Officer, distributed a [DEI Performance Appraisal Guidance Document](#) recently that provides structure and guidance for us when generating our DEI goals. It describes these goals in the context of their ability to have a personal impact, a group impact, and an organizational impact. As you mull over your DEI performance goals for the next year—and July is a time to start thinking about goals for next year—please use this guidance. Our future success is predicated upon making sure our workforce is diverse, our environment is inclusive, and that we provide equity for all. The future is changing. Besides, it is the right thing to do! I realize that our expectations are getting greater as our workload is also getting heavier. The challenge is to incorporate the successful DEI practices into our already stretched workload. As a first step, I will be reporting my DEI goals as I develop them with the DEI Council and Noel, and I will ask the DEI Council to compile some suggestions as to goals with the new guidelines as a model.

The three inaugural Fowler award recipients and the two Chasman award recipients are highlighted in this newsletter. We should take great pride in how members of this directorate and Brookhaven Lab are training and mentoring the workforce of the future, both nationally and globally.

The highlighted facility is the Laser Electron Accelerator Facility in the Chemistry Division. This is one of two such facilities in the United States and offers unique capabilities with wide applications.

*"Seventy-five years of scientific and technological triumphs and a future that will shine as bright as our creativity!"*

## The Fowler Awardees

The recipients of the inaugural 2022 Joanna Fowler Award in the Chemical and Biochemical Sciences are **Tiffany Victor Lovelace, Diana Lutz, and Maila Danielis**. Each awardee will receive a monetary award and will be recognized at a virtual ceremony later this summer. The recipients are early career (graduate student or postdoctoral) women scientists who carry out research at, or in collaboration with, Brookhaven National Laboratory.

Joanna S. Fowler is a former member of the Lab's Chemistry, Medical and Biology Departments (1969-2014) and leader of Brookhaven Lab's Radiotracer Chemistry, Instrumentation and Biological Imaging Program. She pioneered using radiotracers for noninvasive brain imaging that has since become a mainstay of positron emission tomography (PET) imaging in medicine, particularly for cancer diagnosis. She is also a National Medal of Science recipient.

The inaugural awards are sponsored by the Chemistry Division and Brookhaven Women in Science (BWIS) and funded by the Chemistry Division, BWIS, the DEI Council, and the Human Resources Directorate. It is because of this generous support that three awards are possible this year. BWIS is a nonprofit organization that supports and encourages the advancement of women in science and is open to all individuals. The organization is funded by Brookhaven Science Associates (BSA).

**Tiffany Victor-Lovelace** was a National Synchrotron Light Source (NSLS)-II Directors Postdoctoral Fellow and is now an Assistant Scientist in the Imaging and Microscopy Group at NSLS-II. She obtained her Ph.D. in Chemistry from Stony Brook University in 2018 with NSLS-II's Lisa Miller. She is working on developing Lanthanide Binding Tags (LBTs) for protein imaging in cells and tissues using X-ray Fluorescence Microscopy for X-ray bioimaging research in health, biomaterials, and bioenergy. She is using these LBTs to visualize aggregates of misfolded protein in a cell culture model for Lou Gehrig's disease. In the future, these LBTs can be used for nanometer resolution imaging of proteins within cells. Victor-Lovelace's other research involves exploring nutrient distribution in plant-fungi systems and examining copper involvement in Cerebral Amyloid Angiopathy. She is passionate about science education and DEI in research. She enjoys participating in science outreach and communication because it gives her the opportunity to interact with and inspire other young scientists and the wider public.

**Diana Lutz** is a Ph.D. candidate and a National Science Foundation Graduate Research Fellow in the Stony Brook Chemistry Department with Stony Brook-Brookhaven joint appointee Esther Takeuchi, Kenneth Takeuchi, and Stony Brook-Brookhaven joint appointee Amy Marschilok where her research focuses on the synthesis and advanced characterization of novel materials and electrolytes for next-generation Li-ion batteries. She hopes her research can inform future advances in key technologies such as electric vehicles and grid level energy storage. Independent of her research, Lutz has

served on several committees at the university focused on promoting DEI in STEM (science, technology, engineering, and math) fields and supporting early career researchers in her department and as part of the Materials Research Society.

**Maila Danielis** is a researcher at the Polytechnic Department of the University of Udine (Italy) where she studies "Pd/CeO<sub>2</sub> Methane Abatement Catalysts Prepared by Solvent-free Mechano-chemical Synthesis". During her Ph.D. studies, she visited the Catalysis Reactivity and Structure Group in Brookhaven's Chemistry Department to investigate in depth the peculiar structure of CeO<sub>2</sub> based materials prepared by the dry milling route. The fundamental studies led at the Lab, in collaboration with the synchrotron facilities at NSLS-II, allowed the unravelling of unique Pd-Ce interactions at the catalyst surface which are key in CH<sub>4</sub> and CO<sub>2</sub> activation reactions. The goal of her research is to push the application of dry mechanical methods further towards the preparation of complex metal-metal oxide catalysts aiming at generating new supported metal phases through a more sustainable synthesis method. In particular, she is interested in the application of the newly obtained catalysts in environmentally relevant reactions such as the abatement of noxious gases from stationary and mobile sources and their transformation into value-added feedstock chemicals.

## The Chasman Awardees

BWIS has named **Xiaoyang Liu** and **Lynne LaRoche-Richard** the 2022 recipients of the Renate W. Chasman Award. The Chasman Award was established to encourage women to pursue careers in the STEM fields. It was named for Renate Chasman (1932-1977) whose work at Brookhaven Lab influenced particle accelerator design at NSLS and NSLS-II as well as worldwide. Each awardee received a monetary award and gave a talk.

This year's awards are funded by BSA, the company that operates Brookhaven Lab on behalf of the DOE, as well as generous contributions from the Long Island Section of the American Nuclear Society (LIANS), the Lab's Nuclear and Particle Physics (NPP) Directorate, NSLS-II, the NSLS-II Users Executive Committee, the Center for Functional Nanomaterials (CFN) Users Executive Committee, and the Advanced Technology Research Office.

**Xiaoyang Liu**, a Ph.D. candidate in Yu-chen Karen Chen-Wiegart's group in the Department of Materials Science and Chemical Engineering at Stony Brook, uses electron and synchrotron X-ray techniques at CFN and NSLS-II to help understand the role of inorganic and organic components of anti-corrosion coatings. She also applies in situ multi-modal synchrotron X-ray techniques (3D imaging, spectroscopy, and diffraction) to characterize alloys in contact with molten salts to help understand corrosion processes at molten salt-metal interfaces for sustainable energy applications as part of the Molten Salt in Extreme Environments (MSEE) Energy Frontier Research Center (EFRC) led by Dr. James Wishart at the Lab. She would like to continue studying materials in extreme environments for sustainable technologies and

to develop advanced characterization methods in the future.

**Lynne LaRochelle-Richard** is completing a chemistry Ph.D. at Northeastern University in Sanjeev Mukerjee's group. Prior to starting her Ph.D., she taught physical science and chemistry in New York City and worked in R&D for a company producing carbon blacks for markets that included fuel cells and batteries. Her interest in materials for renewable energy led to her return to academia where her Ph.D. research is on iron- and cobalt-based carbon supported catalysts for the oxygen reduction reaction in automotive fuel cells. This work involves both catalyst synthesis and electrochemical studies aimed at understanding how these catalysts interact with oxygen. The driving question for LaRochelle-Richard's research is "what is the trigger for the onset of catalysis in cobalt-based carbon supported ORR (oxygen reduction reaction) catalysts?" The results support a model in which oxygen has minimal interaction with cobalt in the catalyst.

### From the EPSD DEI Council

We are including the list of EPSD peer counselors and information on anonymous communication from the last newsletter.

The EPSD [Peer Counselors](#) are members of the DEI Council and welcome conversations about any workplace concerns with EPSD employees and guests. Be assured that confidentiality is an utmost priority within the constraints of Lab policy. Our current EPSD roster of Peer Counsellors is:

Christine Ali (Ext. 3197, [cali@bnl.gov](mailto:cali@bnl.gov)),  
Diane Cabelli (Ext. 4361, [cabelli@bnl.gov](mailto:cabelli@bnl.gov)),  
Fernando Camino (Ext. 7606, [fcamino@bnl.gov](mailto:fcamino@bnl.gov)),  
Michael Cowell (Ext. 7076, [cowell@bnl.gov](mailto:cowell@bnl.gov)),  
Kenneth Evans-Lutterodt (Ext. 2095, [kenne@bnl.gov](mailto:kenne@bnl.gov)),  
Betsy Hanson (Ext. 7804, [mhanson@bnl.gov](mailto:mhanson@bnl.gov)),  
Vivian Stojanoff (Ext. 8375, [stojanof@bnl.gov](mailto:stojanof@bnl.gov)),  
John Tranquada (Ext. 7547, [jtran@bnl.gov](mailto:jtran@bnl.gov)), and  
Grace Webster (Ext. 3227, [gwebster@bnl.gov](mailto:gwebster@bnl.gov)).

We welcome emails or phone calls to either discuss issues or to arrange for times for private conversations.

On the EPSD DEI website we have a process to receive [anonymous messages](#) to the DEI Council and Associate Laboratory Director. In addition, there are green envelopes in many mail rooms that can be used to mail anonymous comments and/or suggestions to the EPSD DEI Council. The envelopes are pre-addressed; you need to only put in your comments and place it in the interoffice mail.

Lab employees are required to have at least one DEI goal on their performance appraisal goal setting document. To help, we have a web page with [suggested goals](#). Please read the new [DEI Performance Appraisal Guidance](#) for help in developing your goal(s) for 2023.

### In 2022

This is the third newsletter of 2022. We began this year with hope for a less tumultuous year than 2021 and we begin this quarter with a process to return to pre-COVID

operating conditions: a return to open access of the Lab site. We are still in normal operating conditions but have returned to some of the COVID protections established earlier. These include but are not limited to wearing face coverings and maintaining distances.

When we began this year, the DEI Council and Jim asked if you would let us know where your priorities lie for the DEI Council programs and whether you have suggestions going forward. You can email Jim or any member of the council directly or you can put it in the [anonymous messages](#) suggestion box found on the [DEI web page](#). We are interested both in programs we can pilot (e.g., DEI performance goals, welcoming letters) and programs where we can provide support (e.g., International Woman's Day Program). Of particular interest are programs that take advantage of the electronic tools that we have used since the start of the pandemic. We have all learned valuable new skills and challenged our creativity; taking advantage of these lessons may be the good that comes out of a very difficult, often heartbreaking time. Remember that all ideas are worth considering. The DEI Council will respond to these ideas, either directly if you choose to send email or on the "Ask Jim" page for anonymous communications.

### Food Services at the Lab

We have food trucks coming on site each weekday. You can find the schedule and menus—including online pre-ordering when available—on the [Guest Services Division website, Food Services](#). The website also lists places that will deliver food and groceries to the Lab site.

### Recommended Articles

In this issue, we highlight an article of a tragedy that intersects safety, DEI, and chemistry:

[25 years after Karen Wetterhahn died of dimethylmercury poisoning, her influence persists.](#)

When Karen Wetterhahn died, the impact was felt throughout chemistry. This is a fitting remembrance of a remarkable scientist and her legacy.

We draw your attention to a recent article in Nature:

[What does it take to make an institution more diverse?](#)

Six researchers, from institutions around the globe, share their ideas for improving representation.

We are including a Ted talk about the consequences incivility in the workplace and the importance of respectful behavior by Christine Porath:

[Why being respectful to your coworkers is good for business](#)

### Pride Month

June was the month when people who identify as LGBTQ+ (lesbian, gay, bisexual, transgender and queer or questioning) and their allies come together to celebrate, show their pride, and grow societal affirmation. The annual gay pride celebrations that occur in many U.S. cities and around the world during the month of June have their roots in an event that occurred June 27 through 29, 1969 at the Stonewall Inn (a gay bar in New York City).

The Stonewall Inn had a diverse LGBTQ+ following frequented by people from various racial and ethnic

groups. As gay bars were not legal at the time, it operated "underground" and was routinely raided by police and the patrons arrested. One day, though, the people in the Stonewall Inn decided they'd had enough. On June 27, 1969, an early morning police raid was met with resistance beginning an uprising that lasted for three days and resulted in over 400 arrests. The activism that followed resulted in the creation of the Gay Liberation Front and Gay Activist Alliance in 1969.

One year later, the anniversary of the uprising saw the first pride parades take place in multiple cities across the United States though primarily in San Francisco and New York. The parades have continued to spread across the globe ever since resulting in the modern June Pride Month Celebrations that we are all familiar with today.

The Pride Alliance sponsored a number of events in honor of Pride Month. The Pride Alliance-sponsored events began with raising the [pride flag raising on June 1, 2022](#). The Pride Alliance then sponsored a talk from [PFlagLI: How To Be A Good Ally](#) in the transgender community. A recording is posted on the Pride Alliance website and is very moving and informative.

### **Asian American and Pacific Islander Month**

May was Asian American and Pacific Islander (AAPI) Heritage month. In 1978 President Jimmy Carter initiated a week-long AAPI celebration during the first week of May and in 1992 Congress voted the entire month of May as AAPI month. May was chosen because of the completion of the first transcontinental railroad (Golden Spike) on May 10, 1869 and the first Japanese immigrant to the U.S. on May 7, 1843.

The Brookhaven Lab Asian American and Pacific Islander Association (AAPA) employee resource group (ERG) celebrated AAPI month by hosting a virtual cooking class on Chinese wontons on May 23. The AAPA also hosted a virtual screening and Q&A session of the film "Far East Deep South" for AAPI Heritage Month. These are in addition to the flag raising early in May and the day where the food services joined with the AAPA ERG for a Food Fete. We will bring you any videos of these events as they appear on the Brookhaven Lab website.

### **Earth Day**

Brookhaven Lab and the Long Island Power Authority (LIPA) celebrated Earth Day 2022 at the Jones Beach Energy & Nature Center with a day full of educational talks and activities. Leaders at Brookhaven Lab and LIPA welcomed attendees to the day's lecture series sharing each institution's climate and energy-related missions. Brookhaven Lab had two speakers and the recordings of their talks are below.

Brookhaven Lab atmospheric scientist Stephen Schwartz gave an interactive talk "[Energy, Climate, CO<sub>2</sub> & You](#)" designed for elementary and middle school children and their families that demonstrated the scientific connections between human activity, CO<sub>2</sub>, energy, and climate.

Brookhaven Lab scientist Art Sedlacek gave a presentation "[Wildfires and Their Contribution to Climate](#)

[Change](#)" about his experience studying wildfires and how they contribute to climate change.

### **Memorial Day**

The Brookhaven Veterans Association (BVA) hosted a ceremony at Brookhaven Lab on Tuesday, May 31 to remember those who made the ultimate sacrifice. The ceremony, held in observance of Memorial Day, was [recorded](#) for Lab staff to join in remembering the sacrifices made by so many.

### **Juneteenth**

Juneteenth, also called Juneteenth National Independence Day, Jubilee Day, Emancipation Day, Freedom Day, and Black Independence Day, is celebrated annually on June 19 and was observed at the Lab on Monday, June 20. Juneteenth was made a Federal holiday on June 17, 2021 when the Senate and House of Representatives passed and President Biden signed the Juneteenth National Independence Day Act. Juneteenth was first celebrated in 1866 in Texas.

Juneteenth celebrates the end of slavery for Black Americans in the Confederacy. Although the emancipation proclamation formally took effect on January 1, 1863, it was not until two and a half years later, with the arrival of Federal troops in Galveston, Texas, on June 19, 1865 that the announcement of emancipation was made to the slaves in the last outpost of slavery within the former Confederate states. The emancipation proclamation stated that all persons held as slaves "within the rebellious states" are, and henceforward shall be free and Texas was the westernmost of these states. The ratification of the 13<sup>th</sup> amendment ended slavery in the U.S. (December 18, 1865) including those states (Delaware and Kentucky) that were part of the Union but where slavery was legal.

### **In the Next Quarter**

We have always highlighted events that occurred in the past quarter to give you a chance to see the videos if you missed attending at the time. We would like to remind you of upcoming events in July through September 2022.

September is Hispanic Heritage Month. Please watch on the Brookhaven Lab calendar for events sponsored by the Hispanic Heritage Group (HHG) ERG starting with the flag raising early in the month and including the Food Fete mid-month.

### **Keep up with Science at EPSD and the Lab**

We want to extend a welcome to the summer interns and students who appeared ON SITE in early June. It is so great to see fresh faces at the Lab after the past two years. Please help make their stay here as fruitful as possible. Also, please watch for all of the new bicyclists on our roads. It is a change to our life and requires our being very alert.

[Summer Sundays](#) are back, albeit in a different format than the past! Instead of bringing people to NSLS-II, we will be going to three different locations on the island.

### Summer Sunday 1

When: **July 17, 2022 from 10:00 am – 2:00 pm (public)**

Where: Reichart Planetarium (Centerport, at the Vanderbilt Mansion/Museum/Planetarium) [[Google maps](#)]

Discuss NSLS-II in the context of space research and light in general, with demonstrations and posters. Everything touches on how NSLS-II works and what we do here.

### Summer Sunday 2

When: **July 24, 2022 from noon to 3pm**

Where: The Long Island Museum (Stony Brook) [[Google maps](#)]

Discuss NSLS-II in the context of atoms and materials research in general, with demonstrations and posters.

### Summer Sunday 3

When: **July 31, 2022 from 10:00 am to 3:00 pm**

Where: Sisters of St. Joseph (Brentwood) [[Google maps](#)]

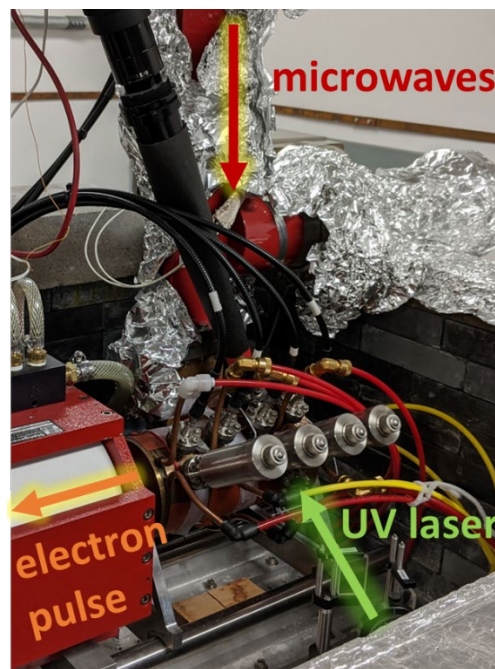
Discuss NSLS-II in the context of atoms and materials research in general with demonstrations and posters.

## Instrumentation at the Lab

by Matt Bird (Chemistry)

What happens if you add an extra electron to a liquid? Sometimes it sits happily on a molecule, sometimes it breaks the molecule, sometimes it prefers the space in between them, and sometimes it flies through the liquid at breakneck speed. The Chemistry Division houses one of two **pulse radiolysis** facilities in the U.S. where these excess electrons can be rapidly generated from ionizations created by the passage of a short (<50 ps) high-energy (9 MeV) electron pulse. These excess electrons can be used to investigate a range of science problems including solar energy conversion (molecular photovoltaics and photocatalysis), nuclear waste separations, molten salts for nuclear reactors, enzyme function, per- and poly- fluorinated alkyl substances (PFAS) destruction, and quantum information science. It was actually with pulse radiolysis that the Lab's John Miller found the first evidence of the predicted inverted region for molecular electron transfer, which ultimately led to Rudy Marcus' 1992 Nobel Prize.

The Laser Electron Accelerator Facility (LEAF) is part of the Accelerator Center for Energy Research (ACER) which comprises two electron accelerators and two cobalt gamma sources. The Chemistry Division's [Electron-and Photo-Induced Processes \(EPIP\)](#) group operates ACER which can be found in Building 555. Electrons, generated from a UV laser pulse hitting a magnesium photocathode, are accelerated with microwaves that are 10,000 times more powerful than needed to make popcorn. In the electron gun, which is about the size of a shoebox, the electrons are accelerated to close to the speed of light before being focused and steered to a sample cell where UV to mid-infrared light and DC or AC conductivity probe the ensuing electron transfer processes. Our world-unique pulse radiolysis detection capabilities, such as optical fiber single shot (OFSS) and time-resolved IR (TRIR), are capable of tracking electrons zipping along molecular wires or bonds being formed in fundamental steps of artificial photosynthesis.



*The LEAF electron gun: accelerating electrons to close to the speed of light to study molecular electron transfer processes*

In a 2021 study<sup>1</sup> with recent Princeton Nobel laureate, Sir David MacMillan, we investigated an important mechanism in the emerging field of metallaphotoredox catalysis<sup>2</sup> as part of the DOE's [Bioinspired Light Escalated Chemistry \(BioLEC\)](#) Energy Frontier Research Center (EFRC). This field merges photoredox and transition metal catalysis to use electron transfer from photo-excited molecules to modulate the oxidation states of traditional catalysts, like Ni complexes, to increase their reactivity. Think of this as doing chemical synthesis with blue LEDs instead of a hotplate. This new type of synthesis is so efficient that the chemical industry is adopting these approaches almost as quickly as scientists are discovering them. In our contribution, we used pulse radiolysis to add an extra electron to a Ni(II) complex to unambiguously generate the reactive Ni(I) intermediate to find out its role in important bond-forming cross-coupling reactions. Our results suggested that monomeric Ni(I) is a key species in the process, and we characterized rate constants for oxidative additions to aryl halides, the first step in the cross-coupling to stick two halves of a molecule together.

We are always open to collaborations so please feel free to [contact me](#) or a member of the EPIP team to find out more.

<sup>1</sup>[JACS 2021, 143, 25, 9332–9337](#)

<sup>2</sup>[Chem. Rev. 2022, 122, 2, 1485–1542](#)

## From the DeepDive Survey

The results of the DeepDive survey that was carried out in early 2022 are in, and various groups at the Lab and CultureIQ have been assessing the data. As a first step, Scott Young of CultureIQ shared results from the DeepDive survey with Brookhaven staff. The DeepDive survey is one of several designed to help improve the employee experience at Brookhaven. Lab Director Doon Gibbs and other leaders joined Young for Q&A with staff

after the briefing. Please click on the link to play the video of the [DeepDive Survey Results Briefing](#).

Unfortunately, there was not time to answer all of the questions during the meeting but a [website](#) has been established where links to the briefing, answers to additional questions, an overview of the survey and a .pdf of the summary report can be found. Organizational Change Management Specialist Claudine Cangiano has been organizing meetings with groups of employees to facilitate discussions about the content of the DeepDive survey.

A new working group, comprised of some members of the previous working group along with new volunteers, has been assembled to review the data and comments received in EPSD from the DeepDive survey has been established. The members of the working group have been provided with the anonymous data for EPSD as well as all of your responses to the direct questions and multi-choice questions. We will be providing quarterly updates from the new Working Group here.

### On the Move in EPSD

We welcome Stefano Giorgio who joins NSLS-II from the Collider-Accelerator Division (C-AD) and Honghu Zhang who joins NSLS-II from the CFN.

### In Memoriam

We mark the loss of James Biancarosa, NSLS-II, on June 12 and send our condolences to his family.

### Help Welcome our New Colleagues to EPSD

Once again, we are introducing our newly hired colleagues to you. If you find common interests or places where you can assist please do. Join me in welcoming them to the directorate:

#### Philip Boccabella, Technical

**Supervisor:** Idir Mourad  
**Email:** [pbocabel@bnl.gov](mailto:pbocabel@bnl.gov)  
**Start Date:** 5/25/2022

#### Ronald Bolosan, Technical

**Supervisor:** Scott Buda  
**Email:** [rbolosan@bnl.gov](mailto:rbolosan@bnl.gov)  
**Start Date:** 4/25/2022

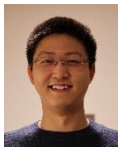
#### Justin Goodrich, Postdoctoral Research Associate/ Fellow

**Supervisor:** Andrei Fluerasu  
**Email:** [jgoodrich@bnl.gov](mailto:jgoodrich@bnl.gov)  
**Start Date:** 4/18/2022

#### Wei He, Postdoctoral Research Associate/Fellow

**Supervisor:** Robert Konik  
**Email:** [whe1@bnl.gov](mailto:whe1@bnl.gov)  
**Start Date:** 4/18/2022

**Preferred Pronoun:** He/him/his  
**Interests:** Watching movies, cooking, and playing ping-pong and badminton.



#### Junsik Mun, Postdoctoral research Associate/ Fellow

**Supervisor:** Mingzhao Liu  
**Email:** [jmun@bnl.gov](mailto:jmun@bnl.gov)  
**Start Date:** 6/13/2022

#### Milton Munoz, Technical

**Supervisor:** Scott Buda  
**Email:** [mmunoz@bnl.gov](mailto:mmunoz@bnl.gov)  
**Start Date:** 5/9/2022

#### Shivani Sharma, Postdoctoral Research Associate/ Fellow

**Supervisor:** Xiaoqian Chen  
**Email:** [ssharma4@bnl.gov](mailto:ssharma4@bnl.gov)  
**Start Date:** 5/16/2022

#### Ganesh Tiwari, Postdoctoral Research Associate/ Fellow

**Supervisor:** Victor Smalyuk  
**Email:** [gtiwari@bnl.gov](mailto:gtiwari@bnl.gov)  
**Start Date:** 4/18/2022  
**Preferred Pronoun:** He/Him  
**Interests:** Hiking, soccer, swimming, travel.



#### Shan Yan, Scientific Staff

**Supervisor:** Amy Marschilok  
**Email:** [syan@bnl.gov](mailto:syan@bnl.gov)  
**Start Date:** 6/6/2022  
**Preferred Pronoun:** She/Her  
**Interests:** I enjoy spending time with family and friends, hiking, traveling and I love spicy food.



#### Yong Yuan, Postdoctoral Research Associate/Fellow

**Supervisor:** Jingguang Chen  
**Email:** [yongyuan@udel.edu](mailto:yongyuan@udel.edu)  
**Start Date:** 6/27/2022

#### Chris Zegel, Administrative

**Supervisor:** Robert Lee  
**Email:** [czegel@bnl.gov](mailto:czegel@bnl.gov)  
**Start Date:** 4/18/2022  
**Preferred Pronoun:** Him/He  
**Interests:** Food (cooking, trying new places, discovering new foods/cuisines, etc.); staying active (lifting, running, riding bikes); learning basic programming mainly through python at the moment; sustainability/green initiatives; sports nutrition (I previously worked for a sports nutrition company mainly focused around protein and high protein snacks); and good music (mostly Jazz, 80's synth, and instrumental music).

#### Chenyu Zhou, Postdoctoral Research Associate/ Fellow

**Supervisor:** Mingzhao Liu  
**Email:** [czhou1@bnl.gov](mailto:czhou1@bnl.gov)  
**Start Date:** 5/9/2022



Members of the EPSD DEI Council (clockwise from top):  
Christine Ali, Priscilla Antunez, Diane Cabelli, Fernando  
Camino, Michael Cowell, Kenneth Evans-Lutterodt, Betsy  
Hanson, Vivian Stojanoff, John Tranquada, and Grace  
Webster.



**Contact Us:**  
**Linda Hanlon**  
**Bldg. 460**  
**(631) 344-7517**

[hanlon@bnl.gov](mailto:hanlon@bnl.gov)

<https://www.bnl.gov/energysci/>