



SciX 2022 Recap

As I sat to assemble this SciX 2022 Newsletter, I reflected on how jovial this particular meeting was for myself as well as the many attendees I talked to during the course of the week. The attendance, both by conference participants and exhibitors, was close to pre-COVID levels, sessions often only had standing room, and the opportunities to connect with colleagues were at an all-time high. From the program changes that allowed for the SciX Gala to be held on Thursday instead of Wednesday, to the diversity of the symposia presented; SciX 2022 had many attributes that attendees will be talking about years from now.

SciX 2022 drew over 900 attendees to the meeting at the North Kentucky Convention Center in Covington, Kentucky (literally across the river from Cincinnati, Ohio) from 2–7 October 2022. The meeting had started Sunday morning with workshops and later in the afternoon technical sessions from the Molecular and Raman Spectroscopy sections. Students also had an opportunity to learn in the afternoon how to employ the copious number of SciX networking opportunities with "How to Make Connections: Student Networking at Conferences", given by PhD candidate Alexis Weber. In the early evening to formally kick off SciX 2022, FACSS Governing Board Chair Mike Carrabba challenged attendees to get involved in volunteering at SciX and with the FACSS organization, emphasizing that the conference wouldn't have made it 49 years without the help of dedicated volunteers (and yes, this means that SciX 2023 is the 50th anniversary of the conference!).

Immediately following this conference introduction, Dr. Amanda Hendrix (on right) from the Planetary Science Institute gave a captivating Keynote presentation on "The Future of Space Exploration: Earth-based, Deep Space-based, Robotic and Human". Her talk discussed the extensive spectroscopy experiments conducted to determine the water content some of the Saturnian moons and others beyond, and the implications of that for future research and even space travel. The talk also mentioned some of the equipment that has been discussed by other SciX-attending researchers in the last few years with regard to *Perseverance* and *Curiosity* doing atomic and molecular spectroscopies in space. Dr. Hendrix's keynote talk provided an exciting springboard for the next five days of technical talks, workshops, and networking.



SAS Student Poster Session

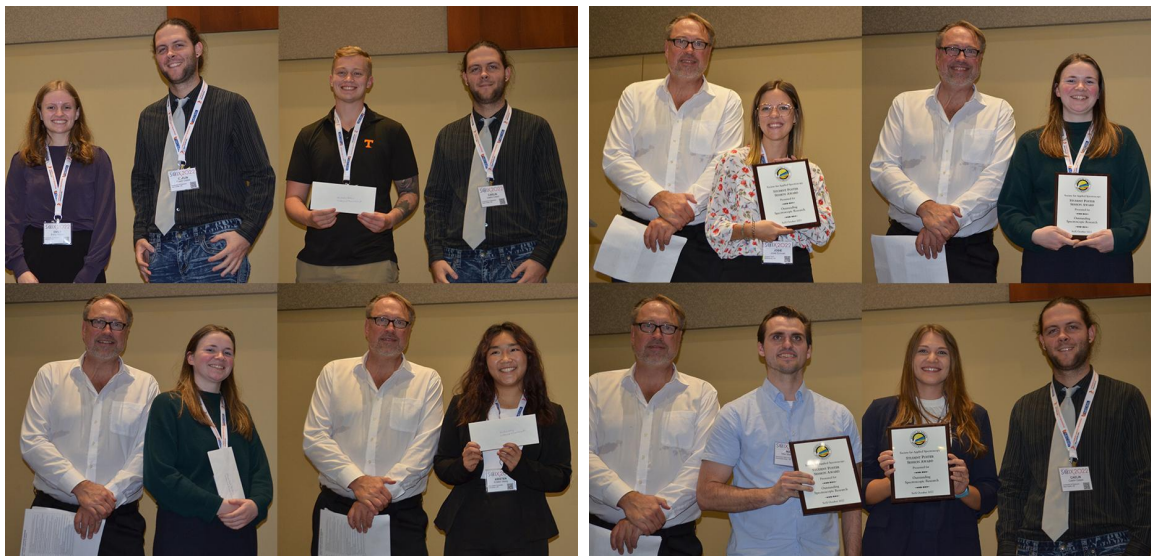
The Sunday evening Welcome Mixer with SAS Student Poster Session immediately followed Dr. Hendrix's talk with over 40 students presenting their research, receiving feedback and support from seasoned scientists. The judges kept busy talking to a large number of outstanding graduate and undergraduate students. Several of us with the honor of helping to judge commented at the end of the judging period that narrowing down our selections this year was exceptionally difficult. Maybe it was the revised judging criteria, or the academics supporting their students attending this year are just producing the next caliber scientists, but we were all thoroughly impressed and stressed trying to pick a handful of winners! In my opinion, this is not the worst problem to have at a conference that prides itself on technical excellence. At the end of the mixer, FACSS, Coblenz, and SAS honored several student awardees chosen from their peers for 2022 awards. Those who attended SciX in person received their awards and SAS presented three student poster winners. Unfortunately, none of the three SAS Undergraduate Student Award recipients, Aaron Mclean, Ewelina Randall, and Aric Potter were able to be at SciX to be honored in person for their achievements and are not pictured here.



Top: FACSS Student Award recipient, Alexis Weber. Bottom left: Tomas Hirschfeld Scholar, Sayantan Mahapatra. Bottom right: Tomas Hirschfeld Scholar, Anna Wójtowicz.



Lamyaa Almeahmadi (left) and Sayantan Mahapatra (center) receive the Coblenz Student Award. Yamuna Phal (right) receives the William G. Fateley Student Award given by the Coblenz Society.



Recipients of SAS Undergraduate Travel Grants. Top (left to right): Emily Tracey, Nicolas Robin. Bottom (left to right): Magdalena Jackson and Kristen Wang

SAS Sunday Poster Session winners. Top (left to right): Josie Duncan, Magdalena Jackson. Bottom (left to right): Max Wamsley, and Anna Wójtowicz



Scenes from the Welcome Mixer and SAS Student Poster session. It was a jam-packed technical event that left many of the judges in particular hopeful for the future of analytical chemistry and spectroscopy with the talented and articulate undergraduate and graduate students we had the opportunity to meet.

SAS Sponsored Technical Session Highlights

Chemometrics

Contributed by Pete Harrington

The Society for Applied Spectroscopy sponsored one invited presentation by Professor John Kalivas in the Chemometrics Section's symposium 22CHEM06: Pathways to Autonomous Chemometrics. John was the organizer, and it featured speakers from three countries: Canada, France, and the USA. Autonomous chemometrics addresses automated pipelines for processing streams of chemical data that are important for developing intelligent instruments and smart products, such as buildings and appliances that incorporate chemical sensors. John's talk titled "Autonomous Chemometrics: Is Resistance Futile?" presented the Idaho State University team's research. John also was recognized as a Fellow of the Society for Applied Spectroscopy this year.

Entrepreneurship in the Scientific Community

Contributed by Alexis Weber

The "Entrepreneurship in the Scientific Community" session kicked off programming for the Contemporary Issues and Early

Career Researchers section at SciX 2022! Speakers of this session provided great insight on the path of commercializing laboratory/academic research. The topics ranged from how to begin finding funding in the talk "Supporting Tech Transfer: The Funding Agency Perspective", by Gregory Dutton from the National Institute of Justice, to imparted advice in the talk

"Entrepreneurship for the Academic: The Good, the Baffling, and the Insanity", by the experienced entrepreneur Alexander Scheeline from SpectroClick. Dutton's talk offered a peak behind the curtain as he is a program manager from a federal funding agency. Attendees learned about the different types of non-dilutive funding that is possible to obtain from the federal agencies and the differences between these agencies. Scheeline's presentation provided attendees with an honest comparison between the field of academia and start-up companies. He explained that while these arenas may seem to go hand in hand, it is understanding the differences between them that will make a successful entrepreneur.



Presenters at the Entrepreneurship in the Scientific Community Session (from left to right), Alexander Scheeline, Amy Scott, Jonathon Speed, Alexis Weber, and Gregory Dutton.

This session was rounded out with discussions from current entrepreneurs who are currently living the small business life. Amy Scott from Beta Analytic presented, "Time-Resolved Spectroscopy in Academia to a Successful Small Business Innovation Research Grant in Industry". Her talk focused on her research at Beta Analytic, which she described as a 43-year-old start-up company. Her talk provided attendees with an insight on how to balance doing research while also trying to advance the company through processes like customer discovery. Jonathon Speed from Keit Spectrometers gave a talk on "Customer-Led Design and 'Failing Fast' in Hardware Design". In most talks, presenters like to discuss their success. But sometimes it can be even more beneficial to hear about times of failure and this is what Speed provided in his talks. Speed talked about the trials and tribulations that come with owning a small business and his perspective on how best to combat points of failure. Overall, this session was an amazing success providing attendees with a novel outlook on the scientific process and understanding of the complexities involved in being an entrepreneur.

Celebrating Peter Griffiths' 80th Birthday

Contributed by Luisa Profeta

Thursday afternoon's session, "Celebrating Peter Griffiths' 80th Birthday", was a technically diverse session honoring long-time SAS volunteer and former editor of *Applied Spectroscopy*, Peter Griffiths. All of the speakers were former students of Peter's who have gone on to make names for themselves in the world of vibrational spectroscopy and metrology—a true testament to the legacy Peter has left on the spectroscopy community as a whole. The session paid tribute to Peter's pioneering vision, while giving the audience some good stories of Peter's younger years as a professor at the University of Idaho.



(Left to right) Organizer Ian Lewis, Presenters Boris Mizaikoff, Don Kuehl, honoree Peter Griffiths, Richard Jackson, Christine Pharr, and Chris Manning.

SAS Early Career Events

Contributed by Anthony Stender and Fay Nicolson

The Early Career Interest Group (ECIG) held several successful events during SciX 2022, and we would like to take time to

thank everyone who attended and supported those events.

On Monday evening, we held a special social event for early career scientists at Smoke Justis. The event was well-attended and afforded a relaxed atmosphere for members to mingle and network with fellow spectroscopists and event sponsors.

On Tuesday afternoon of SciX, two ECIG-organized sessions focused on navigating the challenges faced by early career scientists. Attendees especially enjoyed the panel discussions during these sessions, and some employers were even attempting to recruit future employees. We wish to thank everyone who supported these talks

by attending in person and having some very thoughtful questions for the speakers. A special thank you goes out to Benjamin Manard for helping us out by chairing one of the sessions. And we also wish to thank all of our presenters: Sam Mabbott, Prabuddha Mukherjee, Stefania Perticaroli, Betsy Yakes, Hunter Andrews, Maura Martinez, Alicia Cruz-Urbe, and Jennifer Morgan. Lastly, we wish to thank our generous sponsors for supporting both early career scientists and our many events at SciX 2022: HORIBA Scientific, Thorlabs, Metrohm USA, OptoSigma, and Coherent.

The SAS-ECIG would like to remind SAS members that we are looking for additional planning committee members for 2023. If you are interested in getting more involved with ECIG in 2023 and helping us to plan future events, please send an email to Fay Nicholson at fay_nicolson@dfci.harvard.edu for more information!

We are already looking forward to SciX 2023 and hope to see many of you next fall!



Scene from the Monday evening ECIG Networking event at Smoke Justis. Thanks to all our event sponsors.

SAS Student Event

The 2022 SAS Student Event was hosted at Molly Malone's Irish Pub and Brewery. The event was well attended, with undergraduate and graduate students in attendance trying their hands at billiards, UNO, and a wide variety of other board and group games.



SAS student members filled up the entirety of the second floor of Molly Malone's Irish Pub and Brewery on Monday evening, talking with peers and experienced mentors.

SAS 2022 Award Session and Wine and Cheese Reception

The 2022 SAS Award session recognized a wide variety of students and researchers for their exceptional scientific accomplishments. Current SAS President Andrew Whitley and 2023 President-Elect Peter Larkin presented the awards to recipients who were present. For all details regarding all awardees, including biographies, see the SAS website: <http://www.s-a-s.org>.

Following the awards session, many SAS members adjourned to the Wine and Cheese Reception for drinks, hors d'oeuvres, and dancing.



Top (left): Barbara Stull SAS Graduate Student Awardee, Alexis Weber. (Right): Atomic Spectroscopy Section Student Awardee, Lucía Gutiérrez Romero. Bottom (left to right): Atomic Spectroscopy Section Student Awardees, Ana Lores Padin, Emily Kwapis and Marcus von der Au.

Top (left): Lester W. Stock Awardee, Igor Gornushkin. (Right): Ellis R. Lippincott Awardee, Martin Zanni. Bottom (left): Williams F. Meggers Awardees, James Piret and Michael Blades. (Right): Honorary SAS Membership Award, S. Michael Angel (accepted by Alicia Strange Fessler).



Top (left): SAS Fellow Awardee, John Kalivas. (Right): William J. Poehlman Award presented to the Spectroscopy Society of Pittsburgh (received by Heather Juzwa). Bottom: SAS Early Career Interest Group Travel Grantees Malama Chisanga (left) and Olga Eremina (center left). SAS President's Awardees, Richard Crocombe (center right), and Ellen Miseo (right, accepted by Andrew Whitley).



2022 SAS Service Awardees (left to right), Brooke Kammrath, Diane Perry, Karl Booksh (received by Andrew Whitley).



Diane Perry surprised with a floral bouquet as she heads toward retirement and folks cutting it up on the dance floor during the Wine and Cheese Reception.

Other Networking at SciX

On Monday evening, exhibitors and some sponsoring FACSS organizations, including SAS, sponsored a Networking Mixer immediately following the end of the technical day's sessions. Traditionally, this mixer has been the opener for the exhibit hall, but this year the conference organizers tried something a bit different. Different gifts were raffled off, and attendees had an opportunity to interface with the SAS office before the exhibits opened. The event was well attended and was a good social springboard into the evening's SAS ECIG and Student social events.



Executive Director Bonnie Saylor talks with attendees about SAS and the benefits of membership at the well-attended Monday Evening Mixer.

The other major networking event was the all-inclusive SciX Gala. This event always draws a large number of attendees and makes for a longer period of time for scientists to connect and of course, have a bit of fun. The 2022 theme of "From Space Research to Space Invaders: A Night at the SciX Arcade" was definitely a flashback to a lot of fun most of us remember from our pre-degreed days! This year the Gala was on Thursday evening, which made for a fun conclusion to five days of technical excellence at the meeting.

In closing, I challenge those who have read this far in the Newsletter to encourage their colleagues to attend SciX 2023, which will be the 50th anniversary of the meeting. Organizers are looking for volunteers to help with technical sessions, sponsorship and of course, various networking planning as well. But, in the end, what makes SciX a great meeting is because of attendees like our readership, who make efforts to attend year after year. SAS hopes to see you in Sparks, Nevada, in 2023!



Scenes from the 2022 SciX Gala!

Do you have something spectroscopy-related you want to discuss in the newsletter? Or something that will help our membership such as career tips or application tips? Please let us know by emailing luisaprofeta@gmail.com.

© 2022 Society for Applied Spectroscopy | Telephone: 301-694-8122 | FAX: 301-694-6860

