

2020 Neutrino



American Nuclear Society
Savannah River Section

September 2020 to January 2021 Edition

Web address: <http://local.ans.org/savriv/>

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2020 Neutrino

Co-Chair's Messages

Welcome to the mid-year Neutrino update!

2020 was an interesting year due to Covid-19 as businesses, organizations, and meetings quickly adapted to largely online formats. Despite these challenges, ANS-SR membership has continued to promote education through activities such as the Virtual College Nights (September 2020), and the upcoming Virtual City Competition and the Benjamin Scholarship.

In addition, two ANS-SR members were recognized at the ANS National level in 2020. Dr. Kevin O’Kula received the Milton Levenson Distinguished Service Award and Mr. Bill Wabbersen received the Landis Public Communication and Education Award. We are certainly fortunate to have Kevin and Bill in the organization.

I encourage every ANS National member to designate a local section on their National Membership Application and get involved in that section. This will benefit the local section financially by per member payments through National and strengthen the organization through the use of your time and talents. In exchange, you will have the ability to learn from and grow with like-minded nuclear professionals. Involvement of everyone from students to retirees will enrich everyone’s experience.

I grew up in a small town in eastern Iowa and earned a MS in Chemical and Biochemical Engineering from the University of Iowa. My first experience with the Savannah River Site was at an AIChE meeting in November of 2000. I have always found it amusing that I flew from Iowa to California to get a job in South Carolina.

Since 2001, I have been involved in various aspects of tritium processing, effects on materials, and safety. Historically, our group has focused on tritium processing at SRS, though new doors are opening with increased focus on fusion energy and domestic isotope production.

Wishing you peace, health, and happiness.

Greg Staack

ANS-SR Section Co-Chair, 2020-2021



2020 Neutrino

Co-Chair's Messages (Continued)

This is my fourth time around in the Chair position and happy to share the responsibility with Greg Staack as Co-Chairs. I welcome our Vice-Chair/Chair Elect Madeleine to the leadership role in our Local Section. I have been supporting ANS-SR for over two decades since Dr. O’Kula, our current and on-going Program Chair, encouraged me to participate then as a webmaster for the local section. Being part of the Savannah River Local Section of ANS has allowed me to network and gain leadership skills that have pushed me further in my professional career. I have leveraged my participation and leadership roles locally and nationally in the society as part of my career development with the support of my company, Amentum Technical Services. It is a win-win for me, as career development, and for the company with me representing the company in leadership roles. I bring this point as a personal testament to taking full advantage of my membership with ANS. However, the real benefit from membership with ANS and particularly the Savannah River Local Section is the opportunity to pay it forward in the community and within the local section membership. **For this, I encourage all to renew and maintain your ANS membership and select Savannah River as one of your preferential local sections(current ANS membership allows for selection of two local sections).** Or renew your membership locally with our local section directly as friends of ANS. Pass the word on to others in the nuclear field to join in one form or another.

I grew up in Houston, TX and a graduate of Texas A&M University. I have over 30 years of experience in the nuclear safety sector of federal services. I am a Project Director at Amentum Technical Services providing nuclear safety consulting services mostly at the Savannah River Site (SRS). My career with Amentum started as a spin off company from the Engineering Department at SRS in 1997. This has allowed me to work at most of the DOE sites, Fort Bragg, Anniston Chemical Demilitarization Facility, and Kennedy Space Center. Why Nuke? It landed on my lap as a career change opportunity outside of the oil industry in Houston.

Thanks,

Tinh Tran

ANS-SR Section Co-Chair, 2020-2021



2020 Neutrino

Virtual Technical Meetings:

November

A virtual meeting was held on November 5th between the Savannah River and Columbia sections and Kennesaw College student section. ANS President Mary Lou Dunzik-Gougar discussed “Where is the Love? Why isn’t Nuclear Power Embraced as THE Clean Energy Source? Nuclear power has maintained about a 20-percent share of the total annual generation of electricity in the US for three decades. It’s proven to be a safe, reliable, scalable, and clean source of electricity. Yet only one new reactor has come online in the US in the last quarter-century and new power plant closings have recently been announced. Dr. Dunzik-Gougar’s presentation focused on (1) why environmentalists, those concerned about climate change, have not embraced nuclear power despite the fact that it emits no greenhouse gases, and (2) what proponents of nuclear power can do to raise the awareness of the benefits of nuclear power.



Dr. Dunzik-Gougar is Associate Dean of the College of Science and Engineering at Idaho State University. She has a PhD in nuclear engineering and MS in environmental engineering from Penn State University and a BS in chemistry from Cedar Crest College. Her nuclear career spans 25 years, during which time she has performed research in various aspects of the nuclear fuel cycle, including waste form development, spent fuel pyroprocessing, spent particle fuel qualification for disposal, fuel and material development and characterization (pre- and post-irradiation), development of a waste minimization plan for a next generation nuclear reactor design, and fuel cycle modeling.

The following is a couple of screen shots from the meeting.

2020 Neutrino

Zoom Meeting

Part 2. Nuclear: Why the Resistance?

Nuclear energy has become the cleanest, safest, most reliable and scalable source of energy on the planet.

Even in the age of Climate Alarmism, nuclear is not considered THE answer . . . WHY????

10

Participants (17)

Find a participant

AB	Amanda Bryson		
DD	David Dolin		
G	gary.dorfler		
KM	Kallie Metzger		
K	Keener		
KJ	Kirrah Jones-Quintero		
MB	Maeley Brown		
NS	Nathaniel Smith		
P	palankb		
P	philcupp		
T	TJ		
W	wmherwig		

Invite Unmute Me

Type here to search

19:17 05-Nov-20

Zoom Meeting

The anti-human flourishing worldview leads to . . .

Pressure to increase regulations
Associated litigation
The "criminalization of nuclear"*

- Nuclear is offensive to some because we understand and exploit the energy of the nucleus, the very foundation of all matter

(*Alex Epstein, Industrial Progress)

24

Participants (17)

Find a participant

KO	Kevin O'Kula (Me)		
	Mary Lou Dunzik Gougar		
DB	Damon Bryson		
MB	Mel Buckner		
AB	Amanda Bryson		
DD	David Dolin		
G	gary.dorfler		
KM	Kallie Metzger		
K	Keener		
KJ	Kirrah Jones-Quintero		
LH	Luke Hallman		
MB	Maeley Brown		

Invite Unmute Me

Type here to search

19:30 05-Nov-20

2020 Neutrino

December

ANS-SR Holiday Drop-In December 6, 2020

Due to the Covid-19 pandemic, the ANS Savannah River Section scaled back its traditional indoors Holiday Celebration to a heated, outdoor space at the Southbound Smokehouse near the SRP Park in North Augusta. Southbound is on the right-hand side of SRP Park and across the street from the Crowne Plaza, and offered a view of sunset over the Savannah River and the nighttime Augusta skyline.

Attendees enjoyed a low-risk, sanitized, casual alternative to our usual festive get-together. Party favors in the form of ANS face masks were provided.

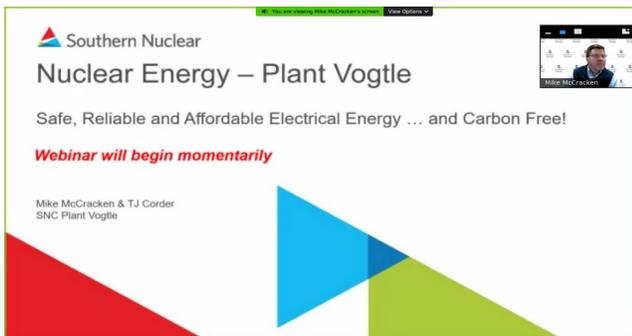
We look forward to resuming our regular gathering next December in hopefully, a post-pandemic environment.



2020 Neutrino

January 2021

A virtual technical meeting was on January 22 at noon on Zoom. Mike McCracken and TJ Corder of Southern Nuclear gave the Savannah River and Columbia sections an update on the new nuclear construction at Plant Vogtle near Waynesboro, Georgia. The attendees were able to ask questions during the meeting using the Zoom features. Mike gave a summary of the past events that have been accomplished since the beginning of the construction of Units 3 and 4. As of the meeting, the Unit 3 fuel load should be completed during the Summer and Startup in the Fall. Unit 4 is scheduled to startup in Fall of 2022. This is on schedule with the Public Service Commission's approved schedule. TJ gave a overview of the new designs incorporated in the AP1000. The differences between the fuel of the operating units and the new units were shown in slides, and the similarities / differences of the Design Basis Accident. Due to different reasons, Plant Vogtle is the only new nuclear construction in the US.



2020 Neutrino

Future Section Events

Virtual Zoom Lunch and Learn Event – 12:00 PM Friday, February 19, 2021

Topic: Noble Gas Nuclear Forensics

Dr. Steven Biegalski

Chair of Nuclear and Radiological Engineering and Medical Physics Program
at Georgia Institute of Technology

Since the Partial Test Ban Treaty in 1963, nuclear explosion tests have largely been conducted in underground locations. To monitor the emissions from underground nuclear tests, the world community relies upon atmospheric monitoring for radioxenon among other technologies. The Comprehensive Nuclear Test-Ban Treaty (CTBT) incorporates radioxenon monitoring within International Monitoring System (IMS) with a focus on ^{131m}Xe , ^{133m}Xe , ^{133}Xe , and ^{135}Xe . It is expected that radioxenon monitoring will also be incorporated into the On-Site Inspection (OSI) protocols along with radioargon monitoring.

This seminar will focus on developments at The University of Texas at Austin that advance the field of noble gas nuclear forensics. Analysis will be shown for both natural and anthropogenic signals and forensic methods for distinguishing between radioxenon sources will be discussed. A forensic assessment of radioxenon emissions from the Fukushima nuclear accident will be presented and results showing the variability induced by underground radionuclide transport will be detailed.

Register via the ANS SR SurveyMonkey hyperlink <https://www.surveymonkey.com/r/CRCBCBW>. Once registered, a Zoom link will be sent to you.

Cost - Donation to ANS Savannah River for its Benjamin Scholarship, or other charitable organization of your choice (Honor System). Alternatively, please consider assisting in nuclear science and technology outreach opportunities (contact us at ans.savannahriver@gmail.com) or volunteering to other service organizations.

Outreach and Education

Up and Atom Virtual Meeting

A virtual Up and Atom meeting was held on November 11th. This was sponsored by Citizens for Nuclear Technology Awareness and the ANS Savannah River Section. The presenter Brian Reilly of Bechtel on construction progress at Plant Vogtle! Brian is a Bechtel senior vice president and has spent 40 years in commercial nuclear power, environmental cleanup, and U.S. national security projects. Currently, he oversees the construction of two nuclear power plants near Augusta, Georgia. The project, Plant Vogtle Units 3 & 4, is the only nuclear plant construction currently underway in the U.S.

2020 Neutrino

TOFE 2020

The normal TOFE Topical meeting in Charleston, SC, was canceled due to the COVID concerns. It was incorporated into the virtual ANS Winter meeting as an embedded Topical.

Representatives from ANS-SR, Savannah River National Laboratory, and Oak Ridge National Laboratory organized the 24th Technology Of Fusion Energy Meeting (TOFE 2020) in November of 2020. TOFE 2020 provided a forum to highlight the latest engineering and scientific advances in both inertial and magnetic confinement fusion, support system development, and power conversion from around the world. Originally scheduled for April in Charleston, TOFE was delayed due to COVID-19 before eventually becoming an embedded topical meeting in the American Nuclear Society's Virtual Winter Meeting. The TOFE Technical Committee included representatives from four National Laboratories, five Universities, and five Countries. While participation decreased when the meeting became virtual, the original schedule included 197 accepted abstracts.

The organizing committee consisted of:

General Chairs Greg Staack and Dr. Gregg Morgan SRNL

Fusion Energy Division Chair Dr. Paul Wilson University of Wisconsin-Madison

Technical Program Chair Dr. Chuck Kessel ORNL

Publications Chair Dr. Kevin O'Kula Amentum

Financial Support Chair Tinh Tran Amentum

Student Chair Dr. Lauren Garrison ORNL

Exhibits/Events Chairs Caryn Butler, Anita Poore, and Joe Wheeler SRNL

2020 Neutrino

Virtual College Night

In lieu of the cancelled, 8,000-person annual CSRA College Night held each September in Augusta, the ANS Savannah River Section produced a series of seven Virtual STEM College Nights on September 14, 15, and 21-24. Each “night” was actually a virtual online discussion session highlighting a specific southeastern university, and its Nuclear Engineering or Physical Science program. The Zoom sessions featured a faculty member presenting an introduction to the department and the university, that was followed by remarks from the alum on highlights of the school and a brief overview on what they are doing now in their work in the Aiken-Augusta area. The two overviews were then followed by a Question and Answer session. Each session lasted about an hour and was designed especially for high school seniors that are interested in pursuing degrees in science, technology, engineering, and mathematics (STEM) areas at Southeastern, regional universities. Maeley Brown, (Young Members Chair) and Kevin O’Kula (Program Chair) coordinated the Zoom sessions and ran the Q&A.

While primarily designed for high school seniors, the sessions could also be beneficial for college seniors looking for graduate school opportunities. Presentations and recordings from each session have been uploaded to the ANS Savannah River website for prospective student use in deciding on future schools for attendance. (<http://local.ans.org/savriv/>)

The lineup of dates, times, schools, faculty and alums that participated is shown in Table 1.

Table 1. The Virtual College Night Schedule Conducted by ANS SR September 14-24, 2020

Date and Time	School	Faculty	Alum
Monday, 9/14/20 6:00-7:00 pm	University of South Carolina	Dr. Travis Knight	Mr. Jacob Pryzwara
Monday, 9/14/20 7:30-8:30 pm	North Carolina State	Dr. Robert Hayes	Dr. Tracy Stover
Tuesday, 9/15/20 6:30-7:30 pm	University of Tennessee	Dr. Nicholas Brown	Mr. Graham Jones
Monday, 9/21/20 6:30-7:30 pm	Clemson University	Dr. Lindsay Shuller-Nickles	Mr. Michael Christopharo
Tuesday, 9/22/20 6:30-7:30 pm	Georgia Institute of Technology	Dr. Steven Biegalski	
Wednesday, 9/23/20 6:30-7:30 pm	University of Georgia	Dr. Simona Hunyadi Murph	
Thursday, 09/24/20 6:30-7:30 pm	South Carolina State University	Dr. Musa Danjaji	Ms. Valerie Nwadeyi Mr. Marcell Wright

2020 Neutrino

North Carolina State University – The second session on September 14, 2020 featured NC State. Professor Rob Hayes described NC State and opportunities in the Nuclear Engineering department. Dr. Tracy Stover, ANS SR Secretary, gave an overview of the university, recommendations for undergrads, and summarized some of his work at SRS (Fig. 2).



Conclusions



- *In 2020 the Department is well established and nationally and international recognized as a premier department:*
 - = The Department has been very successful in growth and raising external recognition
 - = High relevance of our capabilities to national agenda
 - = Credibility in industry, national labs and government agencies as well as strong international connections
 - = Clearly, the Department is on a very good trajectory and is in the mode of seeking ways to further improve - a signature of a healthy organization
 - = **The COVID-19 impact shows the increased role of Distance Education (DE) – expanding MNE program, introducing graduate certificates and introducing a DE component/ delivery mode of the PhD DE program**
- *Our goal for next 5-years is to be the leading Nuclear Engineering Department in the country and in the world with:*
 - = Preeminent innovative education programs
 - = Focus on the growth combined with quality and diversity
 - = Top class experimental and computation facilities and capabilities
 - = Recognized cutting edge interdisciplinary research addressing the Grand Challenges of nuclear science and engineering
 - = Outstanding local and global engagement
 - = Organizational excellence based on positivism, collegiality, teamwork and constant improvement

Fig. 2. Dr. Tracy Stover (ANS SR Secretary, top) and Professor Rob Hayes (bottom) gave prospective students and other attendees a balanced and full picture of undergraduate and graduate student life at NC State.

2020 Neutrino

University of Tennessee – Professor Nick Brown and Graham Jones covered the University of Tennessee at Knoxville (UTK) on Wednesday, September 15. (Figs. 3.a and 3.b)

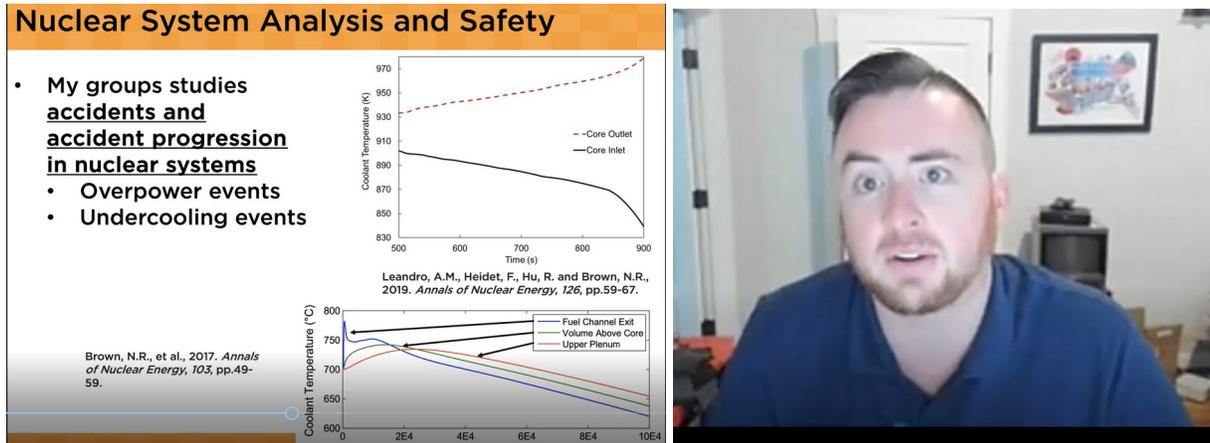


Fig. 3.a Professor Brown summarized his nuclear safety research work and opportunities for student work at UTK.

Professional Development During Breaks



- Internships
- Co-ops
- Oak Ridge National Laboratory
- Study abroad
- Undergraduate research

Fig. 3.b. Graham Jones, a BS and MS graduate of UTK, followed Dr. Brown with his recommendations for undergrads and his opportunities he pursued while a student. Graham works for Savannah River Nuclear Solutions at SRS and is ANS SR's Outreach Chair.

2020 Neutrino

Clemson University - Dr. Lindsay Shuller-Nickles and BS graduate Michael Christopharo talked about Clemson overall, engineering opportunities, and undergrad and graduate programs in Nuclear Engineering, Radiological Science, and Environmental Engineering education. Mr. Christopharo is an engineer at SRS. They spoke on September 21, 2020.

The image is a composite of four parts. At the top is a presentation slide with the title "Where is 'Nuclear' @ Clemson?". The slide lists two main categories: Education and Research. Under Education, it lists an Undergraduate minor in Nuclear Engineering and Radiological Science (NERS) and a Graduate degree, which includes M.S. and Ph.D. programs in Environmental Engineering and Earth Sciences with a focus in Nuclear Environmental Engineering and Sciences. Under Research, it lists the Nuclear Environmental Engineering Sciences and Radioactive Waste Management (NEESRWM) center, with a URL: <https://www.clemson.edu/centers-institutes/neesrwm/>. Below the slide are three small photographs: the first shows two students in lab coats working in a lab; the second shows a student in a lab coat working in a field; the third shows two students in lab coats working in a lab. To the right of these photos is a large portrait of Dr. Lindsay Shuller-Nickles, a woman with dark hair and glasses, wearing a red and white patterned top.

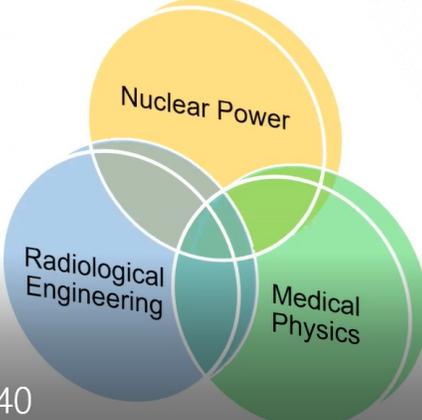
Figure 4. Part of Associate Professor Shuller-Nickles presentation described how “Nuclear” is done at Clemson. She gave viewers a full-spectrum talk, including many aspects of student life, nuclear science and engineering opportunities, and much more.

2020 Neutrino

Georgia Institute of Technology – Nuclear and Radiological Engineering and Medical Physics Program Chair Steven Biegalski presented on September 22, 2020.

Nuclear and Radiological Engineering

- Program focus includes:
 - Nuclear Power
 - Fission
 - Fusion
 - Radiological Engineering
 - Radiation detection
 - Nuclear forensics
 - Nuclear analytical methods
 - Radiation methods in Industry
 - Medical Physics
 - Nuclear imaging
 - Radiation therapy

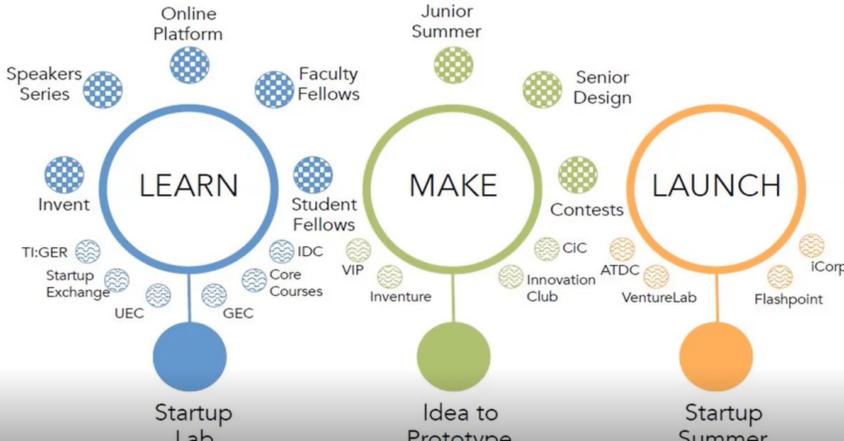


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Fig. 5.a. Dr. Biegalski described how Georgia Tech’s program focusses on three major areas: (1) Nuclear Power; (2) Radiological Engineering; and (3) Medical Physics.

Innovation Culture on Campus



The diagram illustrates the innovation process through three main stages: LEARN, MAKE, and LAUNCH. Each stage is represented by a large colored circle with various activities and programs associated with it.

- LEARN (Blue Circle):** Includes Online Platform, Speakers Series, Invent, Startup Exchange, UEC, GEC, Startup Lab, Faculty Fellows, Student Fellows, IDC, Core Courses, VIP, and Ti:GER.
- MAKE (Green Circle):** Includes Junior Summer, Senior Design, Contests, Innovation Club, VentureLab, ATDC, and Idea to Prototype.
- LAUNCH (Orange Circle):** Includes iCorps, Flashpoint, and Startup Summer.



Fig. 5.b. Georgia Tech has created an innovative process for developing startups.

2020 Neutrino

University of Georgia – Adjunct Professor Simona Murph of the University of Georgia and Fellow Scientist at the Savannah River National Laboratory spoke at the Virtual College Night on September 23, 2020.



American Nuclear Society
Savannah River Section

Tonight's Virtual Session Speaker

- **Dr. Simona E. Hunyadi Murph**
 - Adjunct Professor, University of Georgia
 - Fellow Scientist, SRNL; Founder of Group for Innovation and Advancements in Nanotechnology Sciences, Applied Research Center
 - Program Manager, Laboratory Directed Research & Development
- **PhD, Chemistry/Nanotechnology, University of South Carolina**
- **Education Specialist, Augusta University**
- **MS, Chemistry/Electrochemistry, Babes-Bolyai University (BBU), Romania**
- **BS, Chemistry & Physics Major, BBU, Romania**

ANS Savannah River September 23, 2020



Fig. 6.a. Dr. Murph brought international training as an educator, researcher and program leader to the discussion.



UNIVERSITY OF GEORGIA
Department of Physics and Astronomy
Franklin College of Arts and Sciences

Honors and Awards

- UGA rises to **#15 among nation's best** public universities ranked by U.S. News & World Report.
- UGA is also home to hundreds of major **scholarship winners**, including:
 - 24 Rhodes Scholars,
 - 1 Churchill Scholar,
 - 2 Beinecke Scholars,
 - 7 Gates Cambridge Scholars,
 - 7 Marshall Scholars,
 - 60 Goldwater Scholars,
 - 21 Truman Scholars,
 - 18 Udall Scholars,
 - 56 Boren Scholars,
 - 143 Fulbright Student Scholars,
 - 5 Schwarzman Scholars, and
 - 3 Mitchell Scholars.
- **Honors and Awards**
 - Top 10 Honors Program in the U.S.
 - National Academy of Sciences members: 2 faculty
 - American Association for the Advancement of Science: 55 faculty
 - National Academy of Engineering members: 2 faculty
 - National Academy of Public Administration members: 3 faculty
 - American Academy of Arts and Sciences members: 2 faculty

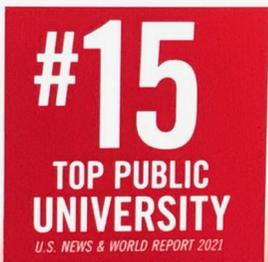


Fig. 6.b. Dr. Murph of the University of Georgia and Fellow Scientist at the Savannah River National Laboratory listed compelling reasons to attend the Athens, Georgia school.

2020 Neutrino

South Carolina State University - Professor Musa Danjaji and BS . Ms. Valerie Nwadeyi (upper left-hand corner) and Mr. Marcell Wright (upper right-hand corner) led the final College Night on September 24, 2020.



Figure 7.a. Professor Musa Danjaji (bottom right-hand corner) makes an observation on attending SC State and its undergraduate program in Nuclear Engineering. Ms. Valerie Nwadeyi (upper left-hand corner) and Mr. Marcell Wright (upper right-hand corner), BS NE graduates later discussed their experiences as students at the Orangeburg, South Carolina school. Young Members Chair Maeley Brown and Program Chair Kevin O’Kula facilitated the virtual meeting.

2020 Neutrino

South Carolina State University (Continued)

The image shows a video recording interface. On the left, a dark blue slide titled "Admissions Requirements" is visible. The main content is a presentation slide for South Carolina State University. The slide features the university's logo and the text "We can't wait to see you in BULLDOG COUNTRY!". Below this, it lists three easy steps for applying: 1. Submit your Application online at www.scsu.edu; 2. Submit your Transcript and test scores (SAT or ACT); 3. Receive notification from the Office of Admissions (must meet minimum qualifications for admission). At the bottom, it provides the address for the Office of Admissions: 300 College Street • Orangeburg, SC 29117. To the right of the slide, a video call window shows Valerie Nwadeyi, a woman with glasses and a dark shirt, speaking.

Fig 7.b. South Carolina State University alum (B.S., Nuclear Engineering, 2016), Valerie Nwadeyi, now a graduate student at the University of Michigan, spoke along with Professor of Nuclear Engineering Musa Danjaji and 2020 grad, Marcell Wright, about strengths of the Orangeburg, South Carolina school.

2020 Neutrino

University of Tennessee (Continued)

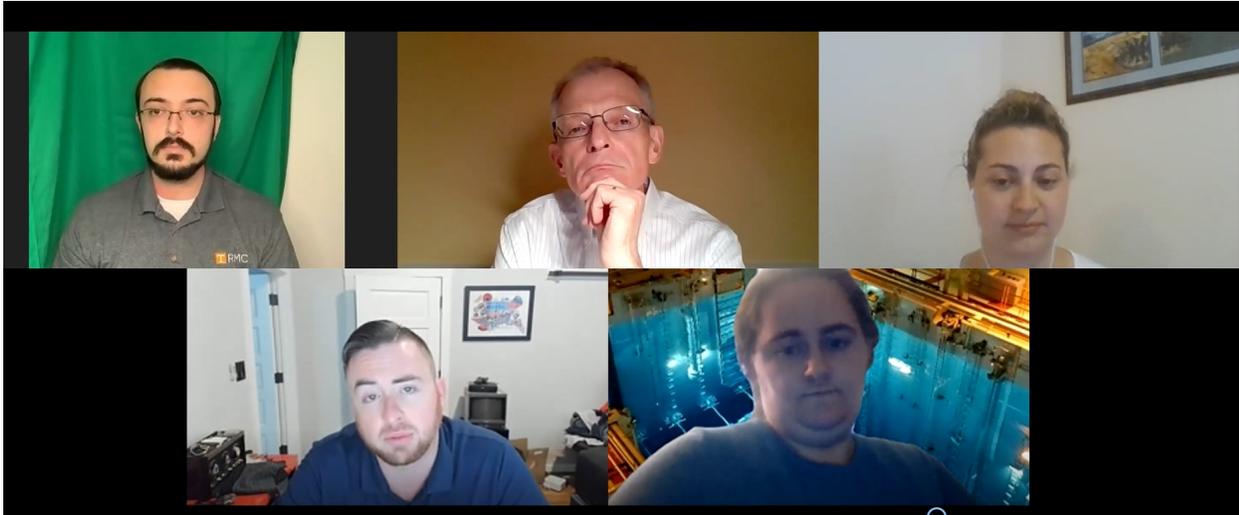


Fig. 8. On the September 15th College Night, Professor Nick Brown of the University of Tennessee/Knoxville (bottom left-hand corner) discussed undergraduate life and Nuclear Engineering Programs at the Knoxville campus. Graham Jones (top left-hand corner) followed. Most student and other viewing participants raised questions via the chatbox feature of the Zoom session. Kevin O’Kula (top center), Maeley Brown (top right-hand corner), and SRS Vice Chair Madeleine Waller (bottom right-hand corner) are participating during this session and provided questions to Professor Brown and Mr. Jones after students had an opportunity.

Future City

January 30 The winner of the “Best Energy System” was awarded to Kennedy Middle School’s city of “Celestial Station. This was 18th annual South Carolina Regional Future City Competition. The goal is to help middle school students better understand the practical applications of math and scientific principles. The program fosters an interest in science, technology, engineering, and math through hands-on components and helps students better understand the practical applications of STEM principles.

The Future City Competition challenges students to design a city at least 100 years in the future and incorporate a solution to a citywide challenge that changes each year. This year’s topic was “Living on the Moon”. Teams had to design a city that utilized two Moon resources to keep their citizens safe and healthy. The competition was held virtually, with teams submitting essays, pictures of their models, and videos of their presentations.

2020 Neutrino

Future City (continued)

The winners were announced virtually on January 31st. The awards ceremony was John Hutchens and Taylor Rice each stepping in front of the camera to read a few awards at a time.

The following are the winners: The 1st place winner of the ANS award (Kennedy Middle School's "Celestial Station") won 3rd place overall

The 2nd place winner of the ANS award (McCracken Middle School's "Eagleton") won 1st place overall

The 3rd place winner of the ANS award (Merriwether Middle School's "Jericho City") received a 5th place honorable mention



John Hutchens

Educator Grant Program Promotes Science and Technology Education

Winners of the 2020 Educator Grant Program are making good progress on their excellent plans to promote science and technology experiences in their classrooms. The educators include Dr. Antonino Carnevali, 12th grade physics, Governor's School for Science & Math; David Kassner, Susan Rutt, and Hannah Wingrove, 10th grade chemistry, Lakeside High School; Kristina Istre, 8th grade science, A.R. Johnson Health Science and Engineering Magnet School; Donita Legoas, 6th grade science, A.R. Johnson; Trina Stidem and Alvina Jackson, middle-level intro to coding, Langley Bath Clearwater Middle School; and Angela Virella, 6th grade social studies, Jackson STEM Middle School.

EGP is sponsored by CNTA and ANS-SR with additional funding support from Huntington Ingalls Industries, Savannah River National Laboratory and SRSCRO. Together they help teachers to develop projects and enhance their students' experiences with science and technology. Proposals for 2021 are due by January 31 and the winners will be notified by mid-March.

2020 Neutrino

Awards

Kevin O’Kula

Kevin was awarded the Milton Levenson Distinguished Service Award. Kevin was awarded this during the ANS virtual Winter meeting November 15-19, 2020. For demonstrated leadership, professionalism and dedication for over 38 years in the field of Nuclear Engineering supporting all aspects of DOE and NRC activities. He has authored over 40 papers and provided technical leadership to numerous ANS Programs and conferences. He is an industry expert in the areas of nuclear facility source term evaluations, probabilistic and quantitative risk assessment and severe accident analysis, accident and consequence analysis, source term evaluation, hydrogen safety, software quality assurance and safety analyses.



Bill Wabbersen

On August 31, 2020, Bill was notified that he was the recipient of the 2020 ANS Landis Public Communication and Education Award by a ANS panel comprised of members of the Honors and Awards and External Affairs Committees. Bill was presented the award during the November 15- 19, 2020, during the ANS virtual Winter meeting. For his origination and development of cross-cutting, innovative educational tools to introduce nuclear science concepts to tens of thousands of students of every age, through the Interactive Nucleus Display (2010), the ANS Isotope Discovery kit (2013), and culminating in the Isotopes App (2020).



2020 Neutrino

Recognition Within:

In 2020 we recognized our own local admin, whose fantastic work makes all that we do possible. The Section paid for Diane Shelton's ANS National membership. She has been the Admin for the section for almost 20 years. Thank you Diane.

Local Section Benjamin Scholarship

Especially in uncertain times like a worldwide pandemic, donations to support the future of students are impactful. Consider a donation to this scholarship fund that makes a difference for local students, and spread the word to be sure any potential applicants know they should apply. See below for details on giving to this worthy scholarship.

2020 Neutrino



American Nuclear Society

Savannah River Section, P.O. Box 7001, Aiken, SC 29804



<http://local.ans.org/savriv/>

2021 ANS Savannah River RICHARD (DICK) BENJAMIN MEMORIAL SCHOLARSHIP



The Benjamin Scholarship is a competitive \$2,500 scholarship given in memory of Dr. Richard W. Benjamin towards the first year of a four-year STEM College/University or either year of a two-year Technical College degree program.

- **Number of Scholarships based on number and quality of applications, but at least one Technical College and one Four-Year College Scholarship/Commendation Award will be given.**
- Seeking students with Science, Technology, Engineering and Mathematics (STEM) career goal, potentially interested in a Nuclear Science and Technology career.
- Current CSRA graduating high school seniors or first-year technical college students are eligible.
- **Application window : January 11 - April 16, 2021**
- **Required Application Materials and Evaluation Criteria (%):**
 1. Cover letter including the student's name, address, evening phone number, current school, and home email address and name of college or technical school to which the Benjamin Memorial Scholarship would be applied. If the school is uncertain, then name the current top choice(s) (5%).
 2. A one-page essay (300 words or less) on why a career in science, technology, engineering, and mathematics, and particularly those in nuclear science, engineering and technology, is the goal of the student; (35%)
 3. High school transcripts (seven (7) semesters in the case of current high school seniors); plus first-semester transcripts for applicants who are first-year technical college students, along with their entire high school transcript; (20%)
 4. Two (2) letters of recommendation from education institution or community organization individuals (e.g., teachers, coaches, service or religious organization leaders, etc.). Each recommendation is weighted 20%. (40%)
- Submit application materials by: 1) Email with attachments to: ans.savannahriver@gmail.com, or 2) U.S. mail to:
Benjamin Scholarship, ANS-Savannah River Section, P.O. Box 7001, Aiken, SC29804
- **Scholarship Award(s) will be announced in late May 2021.**

2020 Neutrino

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Brookhaven National Laboratory

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Earn Cash & College Credit!

The US Department of Energy (DOE) and Division of Nuclear Chemistry & Technology of the American Chemical Society (ACS) are sponsoring two INTENSIVE six-week Summer Schools in Nuclear & Radiochemistry for undergraduates. Funding is provided by the US Department of Energy.

Candidates should be undergraduates with an interest in nuclear science who are presently in their sophomore or junior year of study at a US college or university. They should have completed at least two years of chemistry, one year of physics, and one year of calculus. Applicants must be US citizens.

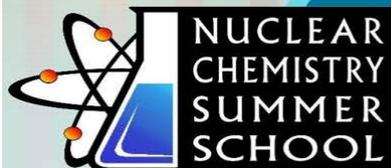
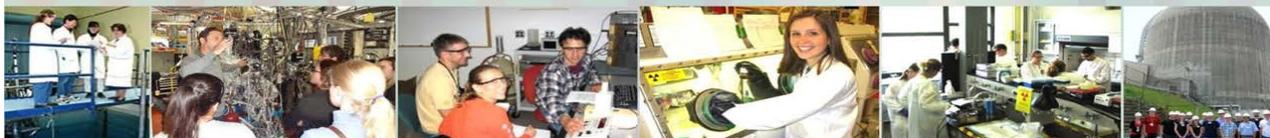
DOE & ACS Nuclear & Radiochemistry Undergraduate Summer School

June 14, 2021 through July 23, 2021

Fellowships include a \$4000 stipend, all tuition and fees, transportation to and from the Summer School location, housing, books, and laboratory supplies. Transferable college credit will be awarded through the ACS accredited chemistry programs at San Jose State University (7 units) or the State University of New York at Stony Brook (6 units).

Completed applications must be received no later than February 1, 2021.

Each Summer School is limited to 12 students. Announcement of awards will be made in early March 2021.



NUCLEAR CHEMISTRY SUMMER SCHOOL

For more information, contact:
Prof. Lynn C. Francesconi, Director
Nuclear & Radiochemistry Summer Schools
Department of Chemistry
Hunter College of the City University of New York
New York, NY 10065

Phone: 212-772-5353 • Fax: 212-772-5332 • Email: lfrances@hunter.cuny.edu

Online application forms are available at:
https://www.nucl-acs.org/?page_id=1731