



Upcoming Events

July 2021
Volume 4, Issue 2

AAD News

A newsletter of the ANS Accelerator Application Division

Your AAD

Leadership Team

Officers:

Gregory E. Dale – Past Chair

Valeriia N. Starovoitova –

Chair

Lin Shao – Vice-Chair

Frederik Tovesson – Secretary

Steven A. Coleman – Treasurer

Executive Committee

(3 year term):

Reginald M. Ronningen (2024)

Ganapati Myneni (2024)

Charles D. Bowman (2024)

Mohamed Yousry Gohar (2023)

Khalid Hattar (2023)

Charlie A. Cooper (2023)

Eva R. Birnbaum (2022)

Irina I. Popova (2022)

Rolland P. Johnson (2022)

Blair Bromley (2021)

Lawrence Heilbronn (2021)

Fredrik Tovesson (2021)

Message from the Chair

After a year of outstanding service and leadership, Greg Dale is stepping down. As a newly elected chair, I am very thankful for his hard work and commitment during these challenging and uncertain times.

I would also like to congratulate and introduce the newly elected members of the AAD Executive Committee: Charles Bowman, Ganapati Myneni, and Reg Ronningen. Welcome aboard!

As the pandemic situation improves, in-person meetings and conferences slowly resume. We are excited to announce the AccApp'21 conference to be held (both in person and virtually) in Washington DC in November-December 2021 as an embedded event with the ANS Winter Meeting. More details

on the meeting can be found at: <https://www.ans.org/meetings/accapp2021/>. My greatest appreciation goes out to Lin Shao, Phil Cole, Bill Horack and all the other members of the team as they are doing their best to adapt to a rapidly changing situation. The deadline for abstract submission is July 12 and I encourage all of you to consider attending our division meeting!

AAD continues to support the ANS in the implementation of their change plan to improve and modernize the ANS governance and operation. In addition, we are committed to support students and young professionals in the field of accelerator applications. In 2006 the AAD established a scholarship for Junior and

Senior students pursuing degrees in Physics, Engineering, or Materials Science. More details can be found at: <https://www.ans.org/scholarships/aad/>.

In conclusion I would like to thank all who volunteer to support the division. Your hard work and dedication make AAD an exemplary team!

Stay safe,

Valeriia Starovoitova



Spotlight Article: The National Center for Electron Beam Research at Texas A&M University – a resource for research, commercialization, and outreach activities

by Professor Suresh Pillai, TAMU

In the heart of Texas, in Central Texas, is a sprawling 5,000-acre campus housing Texas A&M University that has over 70,000 students. The university established in 1876 was originally established as a land grant university to focus on the teaching of practical agriculture, science, and engineering. Today this university has

annual research expenditures exceeding \$ 1 Billion. In 2000, the university in a unique public private partnership acquired high energy electron (eBeam) beam and X-ray technologies. Today, 21 years later the National Center for Electron Beam Research (NCEBR) is a go-to resource for anyone or anything related to electron

beam and X-ray technology. The United States Department of Agriculture (USDA) designated the eBeam Center as a National Center in 2005. In 2014, the International Atomic Energy Agency (IAEA) designated the center an IAEA Collaborating Center for Electron Beam Technology for food, health and environmental applications.

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The National Center for Electron Beam Research at Texas A&M University – a resource for research, commercialization, and outreach activities (cont.)

“Today the National Center for Electron Beam Research (NCEBR) is a go-to resource for anyone or anything related to electron beam and X-ray technology.”

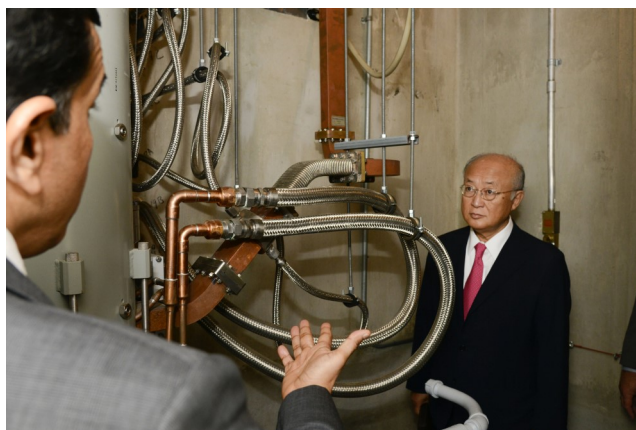
The National Center for Electron Beam Research (NCEBR) is the leading academic and research organization in the world that is focused primarily on the research, development, and commercialization of Electron Beam (eBeam) technologies. The NCEBR brings together scientists and other professionals from the College of Agriculture & Life Sciences, the College of Engineering, College of Science, and the Business School to conduct both fundamental and translational research as it relates to eBeam and X-ray technologies. The NCEBR’s goal is to harness eBeam technology for improving the quality of life of peoples and economies around the world. The tag line of NCEBR is “Harnessing eBeam technology for Cleaning, Healing, Feeding and Shaping this World and Beyond”. NCEBR partners with the IAEA on a number of activities including coordinated research projects, technical meetings, and serving as a subject matter expert on eBeam and X-ray technologies.



Food Technology Facility for Electron Beam and Space Food Research, TAMU

The research, education, and outreach activities that the NCEBR pursues are all aimed at making profound improvements in environmental remediation technologies, developing new therapeutics such as vaccines, enhancing food quality and food supplies to address food security and food safety as well as improving the quality of polymers. All these applications are designed for earth based applications as well as the emerging private

space industry applications. Besides advancing the applications of eBeam technology, the NCEBR is also closely involved in partnering with private investors and technology developers in ensuring the commercial adoption of this technology worldwide. The outcomes of these collaborations have resulted in Mexico’s rapid commercial adoption of eBeam technology both in terms of utilizing eBeam technology for phytosanitary treatment as well as the building out of commercial eBeam service center facilities. In partnership with Walmart, the world’s largest retailer, NCEBR performed a multi-year pilot program evaluating eBeam technology for phytosanitary treatment. In the 3rd year of this program, NCEBR treated over 3 million pounds of Mexican mangoes over a 3-to-5-month period. NCEBR is also involved in pioneering research in collaboration with the US Department of Defense and the EPA to



Yukio Amano, the IAEA Director, visiting the NCEBR

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The National Center for Electron Beam Research at Texas A&M University – a resource for research, commercialization, and outreach activities (cont.)

demonstrate the applicability of eBeam technology as a remediation technology for addressing PFAS environmental contamination. NCEBR is currently partnering with the US National Nuclear Security Administration-Office of Radiological Security and the Pacific Northwest National Laboratory to further advance and expand alternative technologies to cobalt-60 such as eBeam and X-ray technologies all around the world with special emphasis on Latin America. The current activities at NCEBR are involved in understanding how microorganisms respond to low energy eBeam and x-ray (LEEB/LEEX), medium energy beam and x-ray (MEEB/MEEX) and high energy eBeam and x-ray (HEEB/HEEX). The center facilities include an advanced state of science dosimetry laboratory equipped with both

"The NCEBR has been organizing annual hands-on workshop for the past 10 years."



NCEBR annual hands-on workshop

alanine and B-3 film, 2 eBeam (10 MeV) and a 5 MeV (x-ray) linear accelerator. The Center plans to acquire a 200 keV LEEB system (EBLAB200) and the first of a kind self-shielded 1.9 MeV/X-ray "beams in a box" accelerator. The NCEBR has been organizing annual

hands-on workshop for the past 10 years. Due to the pandemic the workshop was cancelled in 2020 and 2021 and will restart in 2022. Additionally, NCEBR will be launching highly targeted online workshops in various topics regularly.

Call for 2021 Winter Meeting Awards

Nominations for the 2021 Winter Meeting Awards are now being accepted. We urge you to submit a nomination if you know a deserving professional who is eligible and qualified in one of the fields served by the Society. Deadline for submission is August 1st, 2021. More details can be found at: <https://www.ans.org/honors/>

2021 Winter Meeting Awards 

*Call for Nominations
Deadline for Submission:*

August 1, 2021

AAD ANS Scholarship Opportunity

Accelerator Application Division of ANS is committed to support students and young professionals in the field of accelerator applications. In 2006 the AAD established a scholarship for Junior and Senior students pursuing degrees in Physics, Engineering, or Materials Science. More details can be found at: <https://www.ans.org/scholarships/aad/>



Upcoming Events

14th International Conference on Nuclear Applications of Accelerators (AccApp'21)

Nov 30–Dec 4, 2021, Washington DC

AccApp'21 will be held as an embedded topic meeting at 2021 ANS Winter Meeting. It is co-sponsored by Texas A&M University, the National Nuclear Security Administration, and International Atomic Energy Agency (IAEA). Please submit your abstracts by July 12.

Travel grants for students and international participants are available due to generous support from the US DOE NNSA, TAMU, and IAEA!

More information can be found at:

<https://www.ans.org/meetings/accapp2021/>



ANS AccApp'21
14th International Topical Meeting on Nuclear Applications of Accelerators
November 30 - December 4, 2021 | Washington Hilton | Washington, DC

CALL FOR PAPERS

EXECUTIVE CHAIRS
General Chair: Lin Shen, Texas A&M University
General Co-Chairs: Philip L. Cole, Lamar University, USA; Valeriia Starovoitova, IAEA
Publication Chair: William Frank, Brookhaven National Laboratory

ABSTRACT DEADLINE: MONDAY, JULY 12, 2021

JULY → SUBMISSION OF ABSTRACTS: Monday, July 12, 2021
AUGUST → AUTHOR NOTIFICATION OF ACCEPTANCE OF ABSTRACTS: Monday, August 16, 2021
SEPTEMBER → REVISED ABSTRACTS DUE: Wednesday, September 1, 2021

PROCEEDINGS PUBLICATION SCHEDULE

DECEMBER → SUBMISSION OF FULL PAPERS FOR ONLINE PROCEEDINGS: Monday, December 13, 2021
JANUARY 2022 → FIRST ROUND OF REVIEW DECISIONS AND REVISION REQUESTS: Wednesday, January 5, 2022
JANUARY 2022 → AUTHOR NOTIFICATION OF ACCEPTANCE OF FULL PAPERS FOR ONLINE PROCEEDINGS: Wednesday, January 19, 2022
JANUARY 2022 → INVITATION OF FULL PAPERS FOR SPECIAL ISSUE OF NSE JOURNAL: Wednesday, January 19, 2022

AccApp'21 is the fourteenth international topical meeting on the applications of accelerators. It is being organized by the Accelerator Applications Division (AAD) of the American Nuclear Society (ANS). AccApp'21 is co-sponsored by the National Nuclear Security Administration (NNSA), Texas A&M University, and International Atomic Energy Agency (IAEA). AccApp'21 will be held as an embedded topical meeting at the 2021 ANS Winter Meeting, Nov. 30 to Dec. 4, 2021, Washington, DC.

AccApp meetings provide a platform for the dissemination of knowledge on the diverse applications of accelerators. AccApp conferences focus on the production and utilization of accelerator-produced neutrons, photons, electrons, and other particles for scientific and industrial purposes, the production or destruction of radionuclides significant for energy, medicine, cultural heritage, or other endeavors, safety and security applications, and medical imaging, diagnostics, and therapeutic treatment.

The conference provides an opportunity for nuclear physicists, accelerator physicists, nuclear engineers, and other experts in the international community to meet and discuss their research face-to-face. These interactions can help establish good working relationships and collaborations to solve common problems across multiple disciplines. Also, old friendships can be rekindled, and new ones established. You are cordially invited to participate in AccApp'21 by submitting an abstract, making an oral or poster presentation, and submitting a full paper for publication in our conference proceedings. Selected papers will also be published by the ANS journal Nuclear Science and Engineering.

The deadline for abstract submission (250-word limit) is July 12, 2021. Full papers should be a maximum of 10 pages. There is no page charge for four or fewer pages. For longer papers, the page charge is \$25.00 per page for 5 and above. The template for abstract preparation can be found at <https://www.ans.org/meetings/accapp2021/>.

SUBMIT AN ABSTRACT
<https://epp.ans.org/meeting/7m-359>

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First International Conference on Accelerators for Research and Sustainable Development

May 23-27, 2022, Vienna, Austria

The IAEA is organizing the first International Conference on Accelerators for Research and Sustainable Development to take place in May 2022 in beautiful Vienna. All types of accelerators will be considered: from low-energy ion-beam electrostatic accelerators and compact accelerator-based neutron sources to large-scale spallation facilities. Special emphasis will also be given in accelerator applications of large societal impact such as human health, environmental monitoring, cultural heritage, food quality, energy sector, forensics, nuclear security, and others promoting economic development. More information is to follow, save the date!

International Conference on the Application of Accelerators in Research and Industry and the International Symposium of NorthEastern Accelerator Personnel (CAARI-SNEAP 2022)

Oct 30-Nov 2, 2022, Denton, TX

The 26th International Conference on the Application of Accelerators in Research and Industry and the 53rd International Symposium of NorthEastern Accelerator Personnel (CAARI-SNEAP 2022) will be jointly held in Denton, TX, the home of the University of North Texas and the original site of the CAARI series. The preliminary list of conference topics is now available. The venue for CAARI-SNEAP 2022 will be a four-star hotel, the Hilton Embassy Suites in Denton, TX. More information is available at: <https://caari-sneap.com>

Have a Story to Tell?

Would you like to contribute a news item or article to a future edition of the ANS ADD Newsletter? Member contributions to the newsletter are always welcome. Please send your article to Valeriia Starovoitova (starvale@isu.edu).

