

IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY ELECTION

Election of Members to the Administrative Committee

COMPUTER APPLICATIONS IN NUCLEAR AND PLASMA SCIENCES (Vote for Two) For the Term Beginning 1 January 2022*

*Candidate receiving the highest number of votes will be elected for a four-year term (1 January 2022 – 31 December 2025)

*Candidate receiving the second highest number of votes will be elected for a two-year term (1 January 2022 – 31 December 2023)



ZHEN-AN LIU (M'07-SM'12) is a physicist in the Experimental Physics Division (EPD) at the Institute of High Energy Physics (IHEP), Chinese Academy of Sciences (CAS), and a Professor at University of Chinese Academy of Sciences (UCAS), Beijing China. He received a B.S. in Experimental Physics from University of Science and Technology of China (USTC) in 1983 and M.S. in High Energy Physics from Graduate School of Chinese Academy of Sciences (GUCAS which transformed to UCAS later) in 1988 and a Ph. D in Particle Physics from UCAS China in 1999. He visited GSI, Darmstadt Germany and CERN Geneva in 90's as a visiting scientist for years, and joined again IHEP Beijing to design and construct the trigger system for Beijing Spectrometer (BES III) in year 2001 with a completion in 2008. He has been leading a group, which has an active research program in instrumentation development for particle physics, plays a leading role in TDAQ development in PANDA experiment (since 2007 to present), the overall readout for Belle II experiment (Belle2link) since 2008 to present, the readout and data reduction system for Belle II/PXD detector(ONSEN) since 2010 to present, the Concentration, preprocessing and Fanout (CPPF) for CMS L1 trigger system Phase I upgrade since 2013 to 2017, and RPC Backend Electronics and trigger concentrator for CMS Phase II upgrade since 2018 and CEPC TDAQ R&D activities.

Statement: I have carried out research on radiation instrumentation for much of my career. If elected to CANPS representative to AdCom, I would work to enhance its core functions as presentative, helping to improve the communication between CANPS and AdCom, maximize benefit to attendees of NSS/MIC/RTSD meetings, and advocating initiatives of value to the radiation instrumentation community. I would help to foster an environment that will attract more young scientists into our field, with my experience in TNC member and elected RISC Member. I have contributed presentations to IEEE meetings over years, and participated in several meetings as an organizing committee member (Local Chair for Real Time Conference 2009 in China, Scientific Committee Co-chair for RT2014 in Japan and RT2016 in Italy, Asia- Pacific Liaison Co-Chair NSS-MIC2013 in Korea, Membership Booth running in SOFE2017 in Shanghai, and TIPP2017 as General Chair in Beijing), all of which have given me insight to be an effective member to AdCom.

Should I be elected, I am willing and able to serve on AdCom.



MASAHARU NOMACHI (M'04-SM'13) is a Regional Director of European Center for Academic Initiatives, Osaka University. He is also a professor in Institute for Radiation Sciences at Osaka University. He received a PhD in Physics from Osaka University, Japan in 1983, followed by postdoctoral work at Max Planck Institute for nuclear physics and the department of physics at Heidelberg University. He worked in Low Energy Antiproton experiment at CERN. In 1986 he joined KEK online data acquisition group. He leads development of UNIX based data acquisition system for SDC/SSC test experiments and experiments at KEK. In 1993, he joined ATLAS/LHC experiment. In 1995, he moved to RCNP (Research Center for Nuclear Physics) at Osaka University. He leads computer and network group at RCNP. In 1996, he organized an international workshop for network-based data acquisition system in Osaka. From 2000, he worked in Neutrino physics as a professor at Osaka University.

In 2014, He organized 19th Real-Time Conference in Japan. After the conference, he organized an international school on real-time systems in Osaka. This school is followed by the school in Vietnam (2016), South Africa (2018) and Malaysia (2019) with the support of IEEE/NPSS.

Statement: If elected, I am willing and able to serve as AdCom member from 2022 onwards. In 2021 March, I retired at full time job. Adding the function as AdCom member representing CANPS will be a great honor for me, having participated since 1993 in each Real Time conference. As a regional director in Europe Center, frequent travel between Europe and Japan is required. Additional travel to the committee is not problem either. I would like to give my long experience to the new AdCom CANPS extended committee particularly after the COVID crisis who necessities an updated model combining in person and remote participants. In addition, I have a great knowledge of the Asian scientific community that will increase their participation in the future.

I have carried out research on radiation instrumentation on subatomic physics. If elected to AdCom, I would work to attract young scientists especially in developing countries into our field. The state-of- art research in leading institutes is not only for research frontier but also for education. In Osaka University, I have invited students from Southeast Asian countries to the international schools of radiation measurements in Osaka. Consequently, I have an active network in Vietnam, Malaysia, Indonesia and other countries in Region 10. Collaborating with NPSS/IEEE, my goal is to strengthen the presence of our Society especially in this part of the world.



MARTIN L. PURSCHKE (M'04-SM'11) started his career at CERN with the Heavy Ion Program at the CERN-SPS, where he worked for 11 years. He moved to the US in 1996 to the Brookhaven National Laboratory with the PHENIX experiment at the Relativistic Heavy ion Collider. He has been a BNL employee ever since and works now for the new sPHENIX experiment. For a fraction of his time, he works on future experiments at the new Electron-Ion Collider at Brookhaven, and with a Medical Imaging group at Stony Brook University.

Martin Purschke had been the chair of CANPS (2014-2018). He has been a member of the NPSS ADCOM since 2014 in his role as CANPS chair, and since 2018 as the Social Media Liaison. He has in the past been elected to RISC twice and is among the most active NPSS Distinguished Lecturers.

For about 20 years, he has been actively involved in the organization of the IEEE NPSS Real Time Conferences, as well as the NSS-MIC conferences. He has been among the main organizers of the IEEE NPSS Instrumentation Schools in Osaka, Ho Chi Minh City, and Cape Town.

His main fields of research are Nuclear Physics, Data Acquisition Systems, and Medical Imaging.

Statement: I was previously a voting AdCom member in my role as CANPS chair. In the NPSS, I am actively involved in several educational activities. I am among the most active Distinguished Lecturers in the NPSS and have been involved in the organization of three NPSS Instrumentation Schools in Osaka, Ho Chi Minh City, and Cape Town (a fourth school planned again in Ho Chi Minh City had to be postponed due to the pandemic). The schools provide an excellent platform to make IEEE known in parts of the world where we do not yet have a strong representation. Especially during the school in Vietnam, we established a good work relationship with the students, several of whom remain IEEE members to this day, and are now junior faculty or research scientists in various places in Asia.

I feel strongly about the value of education that NPSS members can provide. In addition to a strong desire to ensure adequate funding and other long-lasting support for schools and similar educational activities, I want to see the NPSS continue its current growth path with new members, strong conferences, and a strong media presence. For the benefit of IEEE and NPSS members, I have the technical expertise to help improve our remote conferencing tools, data security, and our technical services in general.

FUSION TECHNOLOGY (Vote for One)

To Fill a Vacancy for a Two-Year Term 1 January 2022 – 31 December 2023



DANIEL ANDRUCZYK (M'11) Prof. Andruczyk is heading up the HIDRA device at the University of Illinois. Previously he was a Research Engineer at the Princeton Plasma Physics Labs from 2012-2014. He currently is an Assistant Research Professor at the Center for Plasma-Material Interactions, a multidisciplinary center at the University of Illinois. Prof. Andruczyk conducts research into plasma edge studies and PFC materials as well as research related to manufacturing in the semiconductor industry. Prof. Andruczyk has previously worked as a post-doc at the Max Planck Institute for Plasma Physics, Greifswald where the W-7X Stellarator is being built. He has extensive expertise in plasma diagnostics including the development and running of diagnostic He beams and has installed two on H-1NF Helicac in Canberra, Australia and the WEGA Stellarator in Greifswald, Germany.

Statement: I am interested in appearing on the ballot for the election of a new IEEE Fusion Technology Committee (FTC) member as someone who is looking to expand their involvement in the fusion community as a whole. I am already heavily involved with the IEEE Symposium on Fusion Engineering (SOFE) as the Chair of the mini-course for 2021 and have been in this role since the 2019 SOFE conference. Previous to that I have organized the PMI mini-course for SOFE in 2017 and been a presenter at the 2015 mini-course. I see being a member of this committee as way to be able to contribute to the fusion community as a whole and be able to support fusion with the FTC's support.



DAVID DONOVAN (M'17) is an assistant professor in the Nuclear Engineering Department at the University of Tennessee-Knoxville (UTK). He received his PhD in Nuclear Engineering from the University of Wisconsin-Madison in 2011 and his BS in Nuclear Engineering at the University of Illinois at Urbana-Champaign. His PhD work was in the area of Inertial Electrostatic Confinement (IEC) Fusion for the purpose of creating and utilizing small-scale neutron generating devices to detect explosives and other illicit materials. He was a post-doctoral research associate at Sandia National Laboratories-Livermore where he worked in the area of plasma-surface interactions in magnetically confined fusion devices. He collaborated extensively with the DIII-D tokamak operated by General Atomics in San Diego, CA as well as with the Tritium Plasma Experiment located at Idaho National Laboratory. Since joining UTK in 2014, he has developed a research program in fusion energy science, plasma physics, plasma-material interactions, and near term applications of nuclear fusion devices. He has introduced new plasma/fusion undergraduate and graduate courses including Introduction to Plasma Physics, Introduction to Fusion Technology, Plasma Diagnostics, and Boundary Plasma

Physics. His group has constructed a compact electron cyclotron resonance (ECR) plasma exposure stage at UTK for low flux ion damage studies, which has been combined with material characterization tools (SEM, FIB, EBSD, GIXRD) to perform studies of He ion damage to tungsten. Prof. Donovan leads a collaborative research effort with the Boundary Plasma Material Interaction Center (BPMIC) at the DIII-D fusion experiment in the areas of diagnostic development, boundary plasma experiments, and impurity transport studies. His research group also collaborates with the WEST experiment in France on impurity transport studies as well as surface chemistry studies at Princeton Plasma Physics Laboratory (PPPL) on the LTX-Beta device. Prof. Donovan was awarded a Department of Energy Early Career Award in 2018 to advance interpretive modeling tools and surface characterization techniques for the study of scrape-off layer impurity transport. He has served on the American Nuclear Society Fusion Energy Division Executive Committee and was a Program Committee Member on the 2019-20 Division of Plasma Physics Community Planning Process (DPP CPP) in the areas of Fusion Materials and Technology and Workforce Development.

Statement: I have been very excited to see the rising level of importance of Fusion Technology and Plasma-Material Interactions in our community over the last decade. With the approaching completion of ITER, the rise of multiple private fusion enterprises, and renewed discussions by the Department of Energy and the fusion community on the construction of new devices, there is an immediate need for increased investment in fusion technology research and trained personnel. IEEE can play a valuable role in bringing together researchers from national labs, private industry, and academic institutions to work towards the goal of net fusion power production.

PARTICLE ACCELERATOR SCIENCE AND TECHNOLOGY (Vote for One) **For a Four-Year Term 1 January 2022 – 31 December 2025**



STEVE LIDIA (M'01-SM'15) is a Senior Physicist and Beam Instrumentation and Measurements department manager at the Facility for Rare Isotope Beams, and adjunct professor in the departments of Physics and Astronomy and Electrical and Computer Engineering at Michigan State University. He is responsible for all diagnostics and beam instrumentation for the FRIB linac and experimental beamlines. Steve received his PhD in Physics from the University of California at Davis in 1999, and spent the next 13 years at Berkeley National Lab until joining MSU in 2013. He served on multiple national and international panels and advisory committees. Steve is a Senior Member of IEEE and a member of APS, OSA, and AAAS.

Statement: I am honored to be nominated as a candidate for IEEE NPSS AdCom. IEEE has long supported accelerator science and technology and, particularly, the Particle Accelerator Conferences in North America. I have been privileged to serve on several program and organizing committees for these conferences. The AdCom is well situated to serve the needs and interests of early career scientists and engineers. We also have the responsibility and opportunity to give voice to the incredibly diverse population of technical professionals in the NPSS. I look forward to encouraging meaningful interactions of all our membership. Let's get to work.



TOR RAUBENHEIMER (M'17) is a professor at the SLAC National Accelerator Laboratory (SLAC) and Stanford University studying the challenges in accelerator systems ranging from Linear Colliders to Free Electron Lasers (FELs) to Plasma Accelerators. Tor led the physics design of the LCLS-II, a future high power X-Ray FEL based on a 4 GeV Superconducting RF (SRF) linac and he is presently leading the physics design of the LCLS-II-HE, an energy upgrade of the LCLS-II FEL. From 2007 through 2011, he was Division Director for the SLAC Accelerator Research Division, where he helped launch the SLAC FACET Test Facility as well as SLAC LHC Accelerator Research (LARP) and SLAC Muon Accelerator (MAP) R&D efforts. Between 1997 and 2007, he was the head of

Accelerator Physics for the Next Linear Collider project and then head of the International Linear Collider Division at SLAC as well as a member of the ILC Global Design Effort. In addition to his work on LCLS-II/LCLS-II-HE, Tor is currently PI for the Linac to End Station A (LESA) beamline, a 10M\$ project to bring dark current from the LCLS-II SRF linac to End Station A for Dark Sector experiments and test beam studies and he is a co-convenor for the Snowmass'21 Accelerator Frontier. He was chair of the APS Division of Physics of Beams in 2017 and he chaired the Scientific Program Committee for the APS/IEEE IPAC'18 and NAPAC'19 meetings. He has authored over 50 refereed journal articles and 300 conference papers. He is a Fellow of the American Physical Society and received the American Physical Society's Division of Beam Physics Dissertation Award in 1994 as well as the U.S. Particle Accelerator School Prize for Achievement in Accelerator Physics and Technology in 2001.

Statement: The Nuclear and Plasma Science Society (NPSS) of the IEEE includes the Particle Accelerator Science and Technology (PAST), a section focused on particle accelerators. The NPSS provides important support for the field of accelerator science and technology through the direct support of the IPAC and NAPAC conferences and other outreach activities including the Women in Science and Engineering events. The IEEE/NPSS is a large organization which can provide additional benefits to the particle accelerator community however, in many cases, these are not recognized by community members. This has resulted in PAST (which is an unfortunate acronym, how about AST or FAST) remaining small, about 30% the size of the APS DPB and 10% of NPSS, even though there is a large overlap in technical interest between organizations. I would work to increase awareness of PAST within the NPSS and the particle accelerator community. I would also strengthen connections with the APS DPB while helping the community understand the support and benefits available from IEEE with the goal of growing both the APS DPB and NPSS/PAST organizations thereby strengthening our community's voice in both the APS and IEEE.

**PULSED POWER SCIENCE AND TECHNOLOGY (Vote for One)
For a Four-Year Term 1 January 2022 – 31 December 2025**



RICK B. SPIELMAN (M'07) received his Ph.D. in Plasma Physics from the University of California, Davis in 1978. While at UD Davis he was a Chancellor's Fellow and a Regent's Fellow. He worked for Sandia National Laboratories for 21 years and, at that time, was a Distinguished Member of the Technical Staff and a Manager of the Pulsed-Power Research Department. He led the successful Z Project at Sandia that resulted in the highest-current, highest-power current driver to date. Dr. Spielman spent 11 years in the private sector. He worked at Ktech Corporation as the Vice President for Pulsed Power until 2012. After that Dr. Spielman went to Idaho State University as a Research Professor of Physics and was the Acting Director of the Idaho Accelerator Center for two years. In 2019 he then moved to a full-time position at the University of Rochester Laboratory for Laser Energetics as a Senior Scientist and Full Professor of Physics. He has published more than two hundred peer-reviewed papers: is a co-author of the Physics of High-Density Z-Pinches, and has presented many invited talks at different conferences. His Google Scholar H-factor score is 43.

Statement: I have been a member of the IEEE for the last 15 years and have served on numerous conference and society committees. I have spent the last 40 years working to advance the state-of-the-art in the fields of high-voltage pulsed power and plasma physics. During this time, I have had the privilege of a personal friendship and a professional relationship with many of the leaders in the international pulsed-power community. These collaborating organizations include: Maxwell Laboratories, Physics International, L3Harris, Sandia National Laboratories, the Naval Research Laboratories, Los Alamos National Laboratory, Livermore National Laboratories, the Imperial College (UK) the High Current Electronics Institute (Tomsk, Russia), ITHPP (France), and others. I believe my international background helps support the PPST Committee. The PPST has nominated me to be a candidate for a position on the NPSS Adcom. I will provide an independent viewpoint and careful attention of the administration of NPSS with a focus on technical excellence, on inclusivity, and on students and young engineers. I support conferences that help students and young engineers attend and participate. It is critical that the policies and actions of the NPSS facilitate growth in our society and in the IEEE as a whole. I would be honored to serve as a member of the Nuclear and Plasma Sciences Society Adcom.



WILLIAM M. WHITE (S'96-M'00-SM'16) received BSEE (1998) and MSEE (2000) degrees from the University of New Mexico, and a PhD (2006) in Nuclear Engineering from the University of Michigan. Dr. White was enlisted for six years in the New Mexico Air National Guard (NMANG) and has worked as a contractor and civilian at the Air Force Research Laboratories (AFRL) where he worked in high power microwaves, pulsed power, charged particle beams, intense radiation sources, and ultra-short pulse lasers. In 2015 he joined the technical staff at Sandia National Laboratories (SNL). During his time at SNL he worked on the Z Machine in pulsed power operations before being promoted to manager of the newly formed Pulsed Power and Data Systems Operations department on Z. In July of 2019 he left SNL and moved to Verus Research in Albuquerque, NM as a Senior Experimental Physicist, and is now the Team Lead for Applied Electromagnetics. He has been a Senior member of the IEEE since 2016, a member of the IEEE for 26 years, and a member of NPSS for 23 years. Positions previously held include: elected member and Secretary of the Pulsed Power Science and Technology (PPST) Committee, Plasma Science and Applications Committee (PSAC) ExCom, guest editor for the 7th Triennial Special Issue of the IEEE TPS, Images in Plasma Science; Technical Area Coordinator for ICOPS (2014 and 2016); and as the Young Professionals Chair for PPPS 20219. He is a registered Engineer Intern in the state of New Mexico.

Statement: I have been involved with the IEEE NPSS for a few years now and up to this point have only been tangentially aware of AdCom activities. I was introduced to NPSS technical committees shortly after grad school, and serving in these roles has given me an appreciation for the work that is required to keep our professional society vibrant and growing. As a member of private industry, being elected to AdCom would allow me to advocate for the pulsed power community with an emphasis on topics important to industrial partners. I am excited to be a part of a field that is simultaneously vital to national defense, boasts a multitude of commercial applications, and is filled with fascinating technical challenges! Thank you for voting to give me this chance to serve on NPSS AdCom.

RADIATION INSTRUMENTATION (Vote for One)
For a Four-Year Term 1 January 2022 – 31 December 2025



LORENZO FABRIS (M'97-SM'10) is Distinguished R&D Staff at Oak Ridge National Laboratory. He received his master's degree in microelectronics and electronic instrumentation from the University of Pavia, Italy in 1993 and his PhD from the University of Bergamo, Italy, in 2016. After working as research associate at the University of Pavia in 1992 and 1993, he joined Lawrence Berkeley National Laboratory as engineer, focusing on the development of low noise readout electronics for X- and gamma-ray detector systems used in beamline experiments at particle accelerators and light sources, for astrophysics missions, and environmental and non-proliferation applications. In 2002, he joined Lawrence Livermore National Laboratory as senior engineer expanding his interests to detector systems design and new detector materials and taking technical lead of radiation detection projects for the Department of Homeland Security. In 2007 Lorenzo joined Oak Ridge National Laboratory, working on non-proliferation and homeland security programs as well as nuclear physics and astrophysics collaborations. His recent work includes instrumentation for different types of gamma-ray imaging detectors, neutron detectors and advanced fast and slow neutron imaging systems, and the development of instrumentation techniques for silicon photomultipliers in liquefied noble gases. Lorenzo is and has been involved in several roles with the IEEE Nuclear Plasma and Science Society. For several years, he has been a reviewer, associate editor, and senior editor for the *IEEE Transactions on Nuclear Science*; he co-chaired and chaired the Nuclear Science Symposium in 2005, 2009, and 2017. He was general chair of NSS-MIC in 2020, the first fully virtual occurrence of the conference. Lorenzo has been a RISC member in 2013-2015, and RISC chair in 2017-2018. He served in numerous sub-committees during his tenure within RISC.

Statement: I have been an active part of the NPSS for over twenty years, but recently, having been in AdCom as RISC chair, I have come to appreciate even more the service this committee brings to our Society, and I have decided I want to continue being an active part of it. I would like to believe that my years of experience and service to the Society will bring something valuable to the committee. I served as general chair for NSS/MIC in 2020. It was the first time our conference had to be conducted fully virtually. This came with incredible challenges from the financial and technical point of view, but I believe that, thanks to the ability our conference committee had to quickly adapt, we were quite successful in accomplishing the conference goals in a financially sound way. This experience gave me a unique view into the conference organization process and the impact of a quickly changing world on our Society. I have come to believe that, as a society, we must be ready to quickly adapt to any situation. This can be accomplished in many ways, but an important aspect to this adaptability is the way conferences are planned, organized, and executed. If elected, I will support the effort of improving the conference organization process by solidifying ties that were made during 2020 and after with the MCE committee within IEEE, an effort that is ongoing within the RITC community. My intention is to facilitate bringing this process to maturity and, if desirable, to share the NSS/MIC experience with the other committees that are represented in AdCom.

Young members, diversity, and involvement within the society have been also matters very dear to me. Our society simply thrives when new people and new ideas are constantly introduced. As RISC chair I believe I was able to enable a very open environment with participation of new young talent from many different areas. This resulted in a diverse environment where everyone was heard, and everyone could participate in any initiative. I intend to continue along those lines as member of AdCom, if elected, by focusing on communications between the committee I represent, as I did in the past and AdCom, and by fostering participation of our young talent at all levels.



LAURENCE ROBITAILLE (M'15) Currently as CTO at Langcore Construction Corp. I am monitoring new technologies and assessing their potential.

- Services, overseeing the selection of research projects to insure that they have the potential to add value to the company, providing reliable technical assessments of potential mergers and acquisitions, explaining company products, methods and future plans to the trade media, and participating in government, and integration into circular economies.
- Coordinate teams conducting third party Independent Verification and Validation of advanced technologies.

I have 30+ years' experience in Nuclear Instrumentation and Control Technologies.

Statement: I am looking to contribute to the RITC with my many years of experience in Nuclear Instrumentation. The standards needed in what instrumentation is required to advance the understanding of planetary change, as well as the integrity of reliance and stability of instrumentations of new Small Modular Reactors designs are my current interests and concerns at this time.

New to the RITC I am humble and look forward to learn and serve the committee to my best.

**IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY ELECTION
FUSION TECHNOLOGY STANDING COMMITTEE ELECTION
For the Four-Year Term 1 January 2022 – 31 December 2025
(Vote for UP to THREE)**

MIRELA CENGHER (M'21) received a Ph.D. degree in plasma physics from the University of Wisconsin Madison in May 2006. She is a recipient of the Emanuel R. Piore Award for Distinguished Achievement in the Study of Physics from the University of Wisconsin-Madison, May, 2001. She has over 28 years of experience in the fusion energy research field, with emphasis on heating and current-drive systems for fusion devices. She started her work in plasma physics in 1992 as a scientist at the National Institute for Laser, Plasma and Radiation Physics in Bucharest, continuing in 2000 with work on Electron Bernstein Waves in Reversed Field Pinch Plasma at the University of Wisconsin Madison. Starting in 2006 Mirela Cengher joined General Atomics working on the DIII-D device. At the DIII-D facility, she participated in the installation and operation of the Electron Cyclotron Heating and Current Drive systems including the gyrotron systems, the 110 GHz and 117.5 GHz transmission lines, and RF injection into the plasma with Electron Cyclotron steerable launchers and Top Launchers. She is currently the Leader of the DIII-D EC Systems Operations Group.

Statement: It would be an honor to serve on the FTC. I have over 28 years of experience in the plasma physics and fusion fields especially in auxiliary heating and current drive with ECH/ECCD. I'd like to bring my experience to the Fusion Technology Standing Committee and to work to support the conferences and cross meetings, and to find the people and solutions we need to make further progress in the exciting and challenging field of fusion.

KUN LU (AF'21) Dr. Kun Lu (Ph.D., Institute of Plasma Physics Chinese Academy of Sciences, 2012) is currently deputy director of Institute of Plasma Physics, CAS Engineering Leader of EAST and responsible officer for ITER PA and ITER TAC1 in ASIPP since May 2020. Prior to this role, he was Deputy Chief Engineer of the Comprehensive Research Facility for Fusion Technology and Responsible officer for CFETR integration design. He was involved in the ITER magnet feeder R&D and Series production and the design and operation of the EAST tokamak cryogenic system. His technical interests include fusion engineering, cryogenics, superconducting engineering and mechanical design. He has 150 technical publications and many contributions to international technical conferences associated with fusion technology.

Statement: My name is Kun Lu, a Professor in the Institute of Plasma Physics, Chinese Academy of Sciences (ASIPP). My research interest is focusing on fusion engineering, especially the design, R&D, manufacture of components or systems for superconducting Tokamaks, includes EAST, ITER and CFETR. I am very much looking forward to joining the Fusion Technology Committee. I have nearly twenty years of working experience in the field of fusion engineering. Now, as the Deputy Director of ASIPP, Deputy Chief Engineer for the Comprehensive Research Facility for Fusion Technology, and the Engineering Leader of EAST, I can undertake more obligations needed to be a member of the Committee.

GEORGE SIPS (M'21) leads the Operation Division at the DIII-D National Fusion experiment, hosted by General Atomics in San Diego. He is a physicist and received his degree and Ph.D. at the Technical University Eindhoven, in the Netherlands. Before joining the DIII-D team in 2020, he worked for twenty years at JET, the world's largest operating magnetic fusion experiment at the Culham Science Centre in the United Kingdom, and for ten years at the fusion experiment ASDEX Upgrade, at the Max Planck Institute in Garching, near Munich, in Germany. Throughout his career, he has worked on optimizing operating scenarios for Tokamaks, promoting advances in physics understanding and engineering solutions. He has been a named author on over 250 journal publications and 170 conference contributions.

Statement: I have worked at the largest magnetic fusion experiments in Europe and in the USA. I have served as chair of several international activities and committees, from collaborating on the development of the physics basis, to the development of technologies for steady-state operation of magnetic fusion devices, as well being a member of program advisory committees of US-based fusion experiments. With my experience, I would be able to provide tremendous international perspective and authoritative input on fusion technology issues. If elected as a member of the Fusion Technology Standing Committee, I will work to support the conferences with particular focus on preparing the next generation of scientists and engineers for the challenging tasks ahead in developing fusion energy.

CHASE N. TAYLOR (M'21) Dr. Chase Taylor is a Senior Research Scientist at Idaho National Laboratory since August 2012, within their Fusion Safety Program. His expertise is on hydrogen behavior in metals, radiation interaction with materials, plasma surface interactions and material characterization techniques. He obtained his M.S. and Ph.D. in Nuclear Engineering from Purdue University in 2011 and 2012, respectively, and his B.S. in mechanical engineering from Idaho State University in 2008. He is a member of the American Nuclear Society, the American Physical Society and has served as Guest Editor for the journal *Fusion Engineering and Design* and guest lecturer at Shizuoka University, Japan. He is the holder of a patent and has written a book chapter dealing with radiation effects in refractory metals and alloys.

Statement: Senior staff scientist, Idaho National Laboratory, Fusion Safety Program (2012-present), Idaho Falls, ID. B.S., Idaho State University (2008); M.S. and Ph.D., Purdue University (2011 and 2012). Dr. Taylor holds expertise in fusion materials, tritium

experiments, plasma-surface interactions, blanket materials, and numerous advanced materials characterization techniques. His present research focuses on fusion breeder technology to advance concepts for extracting tritium from PbLi. Outside of work, he enjoys spending time with his family, backpacking and downhill skiing.

YUHU ZHAI (M'18) is a principal engineer and the NSTX-U Project Engineer at the Princeton University Plasma Physics Laboratory (PPPL). He is also the leader for the superconducting magnet R&D program at PPPL. Dr. Zhai received his M. Sc. and Ph.D. from the University of Florida in Gainesville, FL in 2001 and 2003 respectively with a major in engineering mechanics and minor in electrical and computer engineering. He was a postdoctoral research associate in Electrical and Computer Engineering at Duke University from 2003 to 2006, focused on space plasma physics and remote sensing of the Earth's magnetosphere. He became a scientist and superconducting magnet engineer at the National High Magnetic Field Laboratory, Tallahassee, FL in 2006 where he developed the Florida Electro-Mechanical Cable Model (FEMCAM) for better understanding of performance degradation in cable-in-conduit conductors (CICCs) with mechanical loading. He joined PPPL in 2010 and became chief analyst leading the multi-physics analysis effort for the US ITER diagnostics and port plug engineering. He was also involved in the final design of ITER in-vessel coils and became an expert in plasma-disruption-related electromagnetic simulations for component design of the NSTX upgrade at PPPL. As the Project Engineer for the NSTX-U, Dr. Zhai organized over 100 design reviews for the Recovery Project. He has been involved as a Technical Committee member for SOFE since 2017 and served as the Guest Editor for the *IEEE Transactions on Plasma Science*. He also served as a session chair for previous SOFE and TOFE meetings. He was a keynote speaker at the Low-Temperature Superconductor Workshops from 2017-2019. He has authored or co-authored over 60 refereed journal papers and conference contributions.

Statement: Nuclear fusion is one of the most promising options for continuous energy sources and the future of carbon-free energy for our ever-increasing global energy demand. To achieve fusion power beyond burning plasma requires science breakthroughs and significant innovations in the transformative enabling capabilities such as high-temperature superconductors (HTS) and liquid metal walls. The breadth and depth of my engineering mechanics and plasma physics background with ~15 years of practical experience in superconducting fusion magnet development, long-term national and international collaborations with partners in other labs and commercial sectors, plus my project engineering management experience in integrated design of plasma-facing components (ITER diagnostic first walls and port plug engineering) will bring unique contributions to the IEEE Fusion Technology Committee (FTC).

My main objectives to better serve the community if elected to the FTC standing committee include:

- Advance understanding of technology integration with burning plasma research
- Pursue opportunities to close the gap between HTS innovation and fusion magnets
- Increase emphasis on bridging physics and technology gaps for compact fusion
- Promote strong national and international collaborations on fusion technology

I have been involved as a Technical Committee member for SOFE since 2017. I participated actively in the past and gave talks at the biennial Symposium on Fusion Engineering (SOFE) meetings and more recently, involved in the US fusion community input meetings organized by the US Fusion Energy Science Advisory Committee (FESAC). I will provide my professional service to the fusion community in organizing the biennial Symposium on Fusion Engineering and support the IEEE USA Energy Policy committee in the preparation of energy-related white papers if selected as a member of the FTC. I am a member of IEEE and NPSS and will provide my service to the community if elected for the next Fusion Technology Standing Committee.

IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY ELECTION
NUCLEAR MEDICAL AND IMAGING SCIENCES COUNCIL ELECTION
For a Three-Year Term 1 January 2022 – 31 December 2024
(Vote for UP to FIVE)

GERARD ARIÑO ESTRADA (M'16) is an Assistant Project Scientist in the Department of Biomedical Engineering at the University of California, Davis (UCD). He received his bachelor's degree in Physics from the Universitat Autònoma de Barcelona, Spain, in 2011, and completed his PhD in Physics in the same university in 2015. During his PhD, the nominee studied the feasibility of using cadmium telluride semiconductor detectors for positron emission tomography (PET). In 2016 he joined Dr. Simon Cherry's group at UC Davis as a Postdoctoral researcher with the focus on exploiting fast Cherenkov signals in semiconductor detectors and their application in PET. In 2018 he was promoted to Assistant Project Scientist to start an independent research program as a junior PI. In this position, the nominee has expanded his research scope to the development and study of new photodetectors as well as to developing detectors for proton and heavy ion radiotherapy. Since his graduation in 2015, the nominee has published 7 peer reviewed articles as leading author, co-authored 3 other publications, and obtained 3 R-series awards from the National Institutes of Health (NIH), including an R01. He has also served as a journal reviewer for over 50 publications and participated in a grant review study section for NIH.

Statement: I first attended the IEEE Nuclear Science Symposium Medical Imaging Conference (NSS/MIC) and Room Temperature Semiconductor Detector workshop (RTSD) in 2011 as a volunteer staff. After that, I have attended annually since 2016. I have participated in the conference as a speaker in 6 oral presentations in MIC, RTSD, and joint sessions, I have been session chair for MIC and RTSD sessions in 2020, served as abstract reviewer since 2017, and been a member of the RTSD steering committee since 2019. My combined experience in the MIC and RTSD programs of the conference in different roles gives me a broad perspective of the range of scientific topics of the NSS/MIC RTSD conference as well as a good grasp of the logistical aspects related to it. If elected a member of the Nuclear Medical and Imaging Sciences Council (NMISC), I will strive for transparency, scientific rigor, and for creating a comfortable environment that allows all researchers to share their work and ideas confidently. If asked, I will also provide input to the editorial boards of TNS and TMI following the same principles.

ESTHER CIARROCCI (M'21) is a post-doctoral researcher at the Department of Translational Research and of New Surgical and Medical Technologies of the University of Pisa. She received the master's degree in Physics from the University of Pisa in 2012, working in the field of Medical Physics. She completed her Ph.D. in Physics at the University of Pisa in 2016, with a thesis titled "Cherenkov luminescence imaging: a study of its quantitative capabilities."

She then worked for four years as a Postdoctoral Scientist in the medical physics group of the Department of Physics. Her work has been focused on continuing the study of clinical applications of Cherenkov luminescence imaging. She has also been responsible for the Monte Carlo simulations in her workgroup for modeling the optical transport in biological tissue and photodetectors. More recently she has been working in the UTOFPET project, aiming at developing novel imaging systems with beyond-state-of-the-art time performance, and in the FOOT experiment, dedicated to understanding the nuclear interactions of therapeutic hadron beams with the human body.

In 2021, Esther moved to the Imaging lab of the Department of Translational Research, where she began working in the field of imaging biobanks, in particular at the standardization of the model to represent imaging data within imaging platforms. Esther Ciarrocchi is the first and/or corresponding author of seven peer-reviewed publications, and co-author of ten other journal articles.

Statement: As a research scientist, since 2013 I have participated in all Nuclear Science Symposium and Medical Imaging Conferences. I have presented a poster in 2016 and a talk in 2018, and I have been co-author of several works in the other editions. In these years, I have established good connections with other medical imaging scientists in laboratories from universities, research centers and high-tech companies worldwide. If elected to the Nuclear Medical and Imaging Sciences Council (NMISC), I will make every effort in promoting the NPSS activities to the scientific community in the broadest and most inclusive sense, with special attention on younger researchers. I will be happy to serve as a reviewer for TRPMS and for the NSS/MIC abstracts, and to help recruit other experts in the future annual meetings.

YONG DU (S'02-M'04-SM'15) Yong Du, Ph.D., is an Associate Professor in the Johns Hopkins University Department of Radiology and Radiological Science. Dr. Du is an American Board of Radiology Certified Nuclear Medicine Physicist. He received his B.S. and M.S. in Biophysics from Nankai University, China. He then completed a second M.S. in Applied Physics at East Carolina University and obtained his Ph.D. in Biomedical Engineering from the University of North Carolina at Chapel Hill. He completed a postdoctoral fellowship at the Department of Radiology of the Johns Hopkins University prior to his faculty appointment. His areas of expertise are SPECT and PET imaging physics, image reconstruction, photon transport simulation and modeling, quantitative image biomarker and data analysis, and tracer kinetic modeling. He applies these to solve medical problems in cardiology, oncology, and neurology. He is also experienced in the design and optimization of imaging protocols for animal studies and various clinical trials. His current research projects include: developing and evaluating improved quantitative imaging for brain SPECT; developing

optimizing and validating simultaneous dual radionuclide SPECT methods for assessing myocardial perfusion-innervation mismatch; optimizing acquisition, reconstruction and parameter estimation for dynamic myocardial perfusion imaging with SPECT cameras; and translational PET-based imaging projects, including development and validation of optimized kinetic analysis methods for use with the novel radiopharmaceuticals to image various brain pathological conditions. He has published more than 65 peer-reviewed research articles and book chapters on various aspects of medical imaging and tomography. He has been the principal investigator for many grant awards from industry, agencies, and the NIH.

Statement: As an IEEE NPSS member, I have participated annually in the Nuclear Science Symposium and Medical Imaging Conference since 2001. I have been a reviewer of the NSS-MIC conference abstracts since 2007. I served as an assistant chair in the IEEE NSS-MIC 2007 meeting (MIC part). I have also been an active reviewer of several *IEEE Transactions*, including *Medical Imaging*, *Nuclear Science*, and *Radiation and Plasma Medical Science*. Nuclear Medicine is a multidisciplinary science involving many fields of expertise, such as physics, instrumentation, mathematics, and computer science. The Nuclear Medical and Imaging Sciences Council (NMISC) has been a platform for people from those fields to communicate and disseminate their knowledge and to promote advanced research. If elected to the NMISC, in addition to supporting the current scientific and educational activities of the council, I would like to enhance collaborations between MIC and NSS and to broaden the topics of conference sessions and online education. With increased interest in radiopharmaceutical therapy, I believe NMISC is at the forefront of advocating new instrumentations and algorithms for imaging beta- and alpha-emitters used in the therapy. I will suggest and organize new plenary sessions and conference sessions on related topics, including new cameras and new algorithms for dosimetry, treatment planning, and monitoring. I will also advertise the council among young scientists to attract new members to the NPSS.

YIHUAN LU (GSM'14-M'17) My name is Yihuan Lu. I am an Associate Research Scientist at the Yale PET Center, Radiology and Biomedical Imaging at School of Medicine of Yale University. I received my bachelor's degree in Network Engineering from Nanjing University of Posts and Telecommunications, China in 2010. I completed my Ph.D. in Electrical Engineering at Stony Brook University in 2015, working in the field of Single Photon Emission Computed Tomography and X-ray breast Tomosynthesis. I then worked as Postdoctoral Associate at the Yale PET Center, doing PET physics related research under the supervision of Drs. Chi Liu and Richard E. Carson. In 2017, I was promoted to a faculty member as an Associate Research Scientist and started independent research. My work focuses on the development of novel motion correction algorithms for Positron Emission Tomography (PET) imaging as well as deep learning-based applications in PET. I am the first (or senior) author of 12 (4 are under review) and co-author of 15 journal articles.

Statement: As an IEEE member (as student member in the past) and research scientist, I have participated annually in the Nuclear Science Symposium and Medical Imaging Conference since 2012. I have contributed 19 MIC conference abstracts as first/senior author as well as 11 abstracts as a co-author since then. I received the IEEE Bruce Hasegawa Young Investigator Medical Imaging Science Award in 2020. Given the active participation and strong commitment that I have demonstrated over the last 9 years at the MIC conferences, I believe I can make a unique and significant contribution to the Nuclear Medical and Imaging Sciences Council (NMISC). If elected to the NMISC, I will try to engage scientists of all ages and sexes to participate in IEEE medical imaging activities. I will try to promote scientific and educational activities, to ensure the high-quality MIC and NSS-MIC joint sessions, as well as to help select distinguished plenary speakers. I will also provide input to the editorial boards of TNS and TMI, encouraging them to provide speedy high-quality reviews. I will be happy to help to promote Nuclear Medical and Imaging Sciences activities as a NMISC council member.

ARMAN RAHMIM (S'04-M'08-SM'12) is Associate Professor of Radiology and Physics at the University of British Columbia (UBC), as well as Senior Scientist and Provincial Medical Imaging Physicist at BC Cancer, Vancouver, Canada. He received his PhD in medical imaging physics at UBC. Following doctoral studies, he was recruited by Johns Hopkins University (JHU) to lead the high-resolution brain PET imaging physics program and to pursue research at the JHU Department of Radiology. In 2018, he was recruited back to Vancouver, where he leads the Quantitative Radiomolecular Imaging & Therapy Lab and Provincial Program (Qurit.ca). He has published a book, over 150 journal articles and 300 conference proceeding papers/abstracts, and delivered more than 100 invited lectures worldwide. He was awarded the John S. Laughlin Young Scientist Award by the American Association of Physicists in Medicine (AAPM) in 2016, was Vice President (2017-18) and President (2018-19) of the Physics, Instrumentation and Data Sciences (PIDS) Council of the Society of Nuclear Medicine & Molecular Imaging (SNMMI), and is Chair of the Artificial Intelligence (AI) Task Force of the SNMMI (2020-).

Statement: It will be an honor to serve as member of the IEEE Nuclear Medical Imaging Sciences Council (NMISC). I have been an active participant at IEEE NSS/MIC and SNMMI conferences for well over a decade, having also served as board member as well as VP and President of the Physics, Instrumentation and Data Sciences (PIDS) Council of SNMMI. My aims, succinctly put, if elected will be four-fold: (1) to promote enhanced visibility for NPSS and NMISC, (2) to advocate for increased recognition and opportunities for NPSS members and technical scientists at large, (3) to promote rich interactions with other societies and councils, and (4) to help implement diverse and rich scientific and educational presentations and activities. I believe NMISC has considerable potentials for enhanced visibility, advocacy, interactions and education, and given my experiences including as past president of PIDSC, I wish to contribute to the above four aims.

MITRA SAFAVI-NAEINI (M'17) is a principal physicist and Research Leader at the Australian Nuclear Science and Technology Organisation (ANSTO). She received her B.E (Electrical) from the University of Toronto (2006) and her PhD in Medical Radiation Physics at University of Wollongong (2013). In her current role at ANSTO, she leads a multidisciplinary team of chemists, biologists and physicists, developing neutron capture enhanced particle therapy (NCEPT), a radio-sensitisation technique invented by Dr. Safavi-Naeini, for which she holds a number of patents. The project has grown into a major international collaboration between ANSTO and several other Universities, Industry and Research organisations in Australia, Japan, Italy and Germany. Dr. Safavi-Naeini has proposed and developed new analytical and machine-learning methods for dose quantification in particle therapy via PET. She is a co-developer of an advanced example in Geant4 and has contributed to the development of a validation method for testing the accuracy of the hadronics physics models for predicting the secondary ion fragmentation in particle therapy. She is a member of two of Geant4's working groups. She holds adjunct positions at the University of Wollongong, the University of New South Wales and the University of Sydney, Australia.

Statement: As an IEEE member since the beginning of my Engineering degree, I have been an enthusiastic supporter of the organization, presenting at the IEEE NSS-MIC conference almost every year since I began my research career and served on the Scientific Review Committee and chaired several sessions (2018-19) and regularly review papers for IEEE TNS and TRPMS. In Feb. of 2021, I presented an invited talk on advanced image reconstruction and uses of AI and radiomics in PET/CT at the Virtual IEEE NPSS Workshop on Applications of Radiation Instrumentation - WIE 2021 (Jakarta). In Nov. of 2020, I was selected as a Superstar of STEM by Science & Technology Australia (STA), Australia's peak body in science and technology. The program focuses on promoting diversity and creation and elevation of female scientists. I have been featured on public broadcasting networks promoting science and the need for gender and cognitive diversity in STEM.

If elected to the NMISC, I will apply my enthusiasm and passion for our discipline to promote the MIC meetings. I am passionate about taking an evidence-based approach to achieve the goal of gender equity in STEM. I will work with other committee members to organize training sessions around career planning and management and develop a program of ongoing mentorship meetings between early/mid-career scientists and senior scientists to support the development of our future generations of STEM professionals. As a practitioner of cross-disciplinary science, I will work to find ways of strengthening this aspect of our society to increase the participation of chemists, biologists and mathematicians interested in medical imaging in NPSS activities. This will increase the overall impact of our society's scientific output through cross-disciplinary collaboration.

HIDEAKI TASHIMA (M'20) is a Senior Researcher in the Imaging Physics Group at the National Institutes for Quantum and Radiological Science and Technology (QST), formerly known as the National Institute of Radiological Sciences (NIRS), Chiba, Japan. He received his bachelor's degree in Engineering Science from the Tokyo Institute of Technology (Titech) in 2004. He completed his Ph.D. in Information Processing at the same institution in 2009, working in the field of Medical Imaging Science. He then worked as a Postdoctoral Researcher at Imaging Science and Engineering Laboratory at Titech. In 2010, he moved to NIRS and began working in the field of nuclear medicine physics. His research covers image reconstruction methods and software for nuclear medicine instrumentation, especially for novel systems developed in his research group. He has published more than 60 peer-reviewed journal articles, and he is the first author of 14 articles. He has received 12 awards from journals and societies.

Statement: I have participated in almost all of the annual Nuclear Science Symposium and Medical Imaging Conferences (NSS-MIC) since 2010. More than 80 presentations, including co-authored abstracts, have been accepted for presentation at the NSS-MIC during those 10 years. I am a Topic Convener of MIC 2021. I am acting as a reviewer for academic journals such as *Physics in Medicine and Biology*. Since 2014, I have been an editorial board member of the *Medical Imaging Technology* published by the Japanese Society of Medical Imaging Technology (JAMIT). I would like to use my academic career and experiences and widen international activity through contributing to the Nuclear Medical and Imaging Sciences Council (NMISC). If elected to the NMISC, I will try to engage members in academic societies, especially young generations and students, to participate in IEEE medical imaging activities and encourage international collaborations. It would be my honor to support the community to develop and advance the nuclear medicine physics field as a member of NMISC.

JUNG-YEOL YEOM (AF'17-M'21) Dr. Jung-Yeol Yeom is a professor at the School of Biomedical Engineering of Korea University, Seoul, South Korea, where he has been since 2015. Dr. Yeom received his bachelor's degree in Nuclear Engineering from Seoul National University, South Korea in 2001, and his master's and Ph.D. degree in Quantum Engineering and Systems Science from the University of Tokyo in 2003 and 2006 respectively, on electronics and detectors for positron emission tomography. Upon graduation, Dr. Yeom worked at LG Electronics for 4 years (in lieu of the mandatory military service) before returning to the field of nuclear medicine instrumentation as a post-doc research fellow at Stanford University. Dr. Yeom's lab focuses on R&D of radiation detectors and instrumentations for both medical (nuclear medicine and multi-modal imaging) and non-medical (radiation monitoring and homeland security) applications. He has (co)authored more than 50 journal articles and holds more than 10 local/international patents.

Statement: IEEE Nuclear Science Symposium and Medical Imaging Conference is the main conference that I have been actively attending since my first participation in the 2003 event at Portland as a graduate student. For the past few years, I have been a reviewer of the NSS&MIC conference program, reviewing for both NSS and MIC. Currently, since 2018, I am serving as the general secretary of the IEEE NPSS Korea (Seoul) Section Chapter to oversee the smooth operation of the chapter and events such as the Annual IEEE NPSS Seoul Chapter Joint Symposium, the Annual IEEE NPSS Seoul Chapter Summer Special Lecture Series, and was the editor (2017-2020) of the annual newsletter for the chapter. Having spent 20 years in Korea, 15 in Singapore during my childhood years, 5 years in Japan for my graduate studies, 3 years in the US during my post- doctoral period (and planning a sabbatical in the US later this year), I am not only fluent in several languages such as English (near native), Korea (native), Mandarin Chinese (near native) and Japanese (proficient), but also possess intercultural sensitivity and communications skills. Should I be elected to the NMISC, I will actively act as a bridge between eastern and western nations by engaging scientists of all regions, ages and gender to partake in IEEE NPSS activities. I will also help promote TMI and TRPMS journals (especially the latter) and assist in developing scientific and educational activities offered at NSS-MIC in any ways possible to ensure the success of the event.

LARRY ZENG (M'88-SM'04-F'11) is an Associate Professor at the Utah Valley University and an Adjunct Professor at the University of Utah. He received his bachelor's degree in Applied Mathematics from Xidian University, China, in 1982. He completed his MS and Ph.D. in Electrical Engineering at the University of New Mexico, USA, in 1986 and 1988, respectively. He then worked at the University of Utah, working in the field of SPECT (single photon emission computed tomography). Later his research work has expanded to X-ray CT, PET and MRI. His work focuses on the development of novel image reconstruction algorithms. Larry Zeng has published 169 papers in the peer-reviewed medical imaging journals. He wrote four textbooks. Many young researchers were trained using his book "Medical Image Reconstruction."

Statement: As an IEEE Fellow and active researcher in medical imaging, Larry Zeng has participated almost annually, in the Nuclear Science Symposium and Medical Imaging Conference since 1990. He is an active reviewer of the NSS-MIC conference program committee. He was the deputy Chair of the 1999 MIC conference held in Seattle, WA. He helped organizing the abstract review, scientific program, Boeing tours, MIC dinner, and meeting room AV/lighting systems. During the MIC dinner in Seattle, he successfully organized the first MIC talent show, in which Brian Hudson played guitar, Andrew Reader recited his own poems, Anna Cellar participated in storytelling, and much more. Larry has many experiences in IEEE MIC: IEEE MIC Awards Committee: 2003-2004; IEEE NMISC Awards committee: 2010; IEEE Nuclear and Plasma Sciences Society Nuclear Medical and Imaging Sciences Council: 2001-2003; 2012-2014; 2019-2020; IEEE Nuclear and Plasma Sciences Society Nuclear Medical and Imaging Sciences Council, Chair of NMISC Communications (Web) Sub-Committee, 2004; IEEE Nuclear Sciences Symposium and Medical and Imaging Conference Site Selection Committee: 2001; Webmaster: IEEE Nuclear Medical and Imaging Sciences Council (1998, 1999), IEEE Medical Imaging Conference (1999). Currently, Larry is the IEEE NMISC representative to the Joint Oversight Committee (JOS) for NSS/MIC site selection. Larry has tons of energy and enthusiasm. If elected to the NMISC, he will make the MIC conference fun.

**IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY
PARTICLE ACCELERATOR SCIENCE AND TECHNOLOGY EXECUTIVE COMMITTEE ELECTION**

**Member-at-Large to the PAST ExCom
For a Four-Year Term 1 January 2022 – 31 December 2025
(Vote for ONE)**

PAOLO CRAIEVICH (M'11-SM'12) is currently working as an RF engineer and accelerator physicist at the Paul Scherrer Institute (PSI) in Switzerland where he serves as a head of the RF System 2 group (RF Linacs). Leading a group, he oversees the electron linacs and coordinates extension of the high-gradient linac RF technology developed at PSI with several international laboratories. He is also involved in coordinating the RF operations of the SwissFEL and SLS linacs. Over the last year, he has also been involved in the study to upgrade the FCC-ee injector, coordinating the various activities between CERN, PSI, IJCLab, INFN-LNF and other external partners. In this context, a positron source demonstrator will be installed in the SwissFEL linac in the next few years. During his entire career Paolo has provided important contributions to accelerator science and technology of electron linacs, in particular RF transverse deflection structures, beam manipulation with self-induced fields and high-brightness photoinjector and their application to advanced accelerators and light sources. He is also an IEEE NPSS Particle Accelerator Science and Technology Prize winner, senior member of the IEEE and was an associate guest editor for the special issue of the *IEEE Transactions on Nuclear Science* (TNS) that commemorates the 50th anniversary of the original particle accelerator conference (PAC).

Statement: I have research experience in electromagnetics and technology applied to particle accelerators and, if elected, I would like to serve our society as a PAST Member-at-Large (MaL), to encourage and promote the exchange of ideas and to spread knowledge of the applications of particle accelerator science, engineering and technology. I would like to also continue to expand the European and student member base of NPSS and encourage our colleagues to publish in *IEEE Transactions on Nuclear Science*. Furthermore, through the various European collaborations I have created a network of accelerator engineers and physicists and the PAST committee will be able to benefit from regional diversity through different points of view and approaches to future challenges. To strengthen my involvement in European and Swiss research activities, I have decided to become more involved in the activities of the Swiss section of IEEE. In particular, I will support potential candidates who want to raise their rank in IEEE and, if chosen by the Swiss IEEE committee, I will be coordinator of awards to give voice and recognition at section level or global to some important achievements of our profession. Finally, I have personally benefitted from many contacts in NPSS PAST that have led to useful collaborations and joint efforts. I will also strive to convey the importance of PAST in building these personal bridges that have led to career growth.

SAM POSEN (M'20) spent 2009-2014 at Cornell University, researching superconducting radiofrequency (SRF) cavities in Matthias Liepe's group. After receiving his Ph.D. from Cornell in Accelerator Physics, he joined Fermilab, where he is now a Scientist. His research focuses on improving understanding of RF superconductivity and advancing performance, particularly via new materials for SRF cavities, as well as the use of accelerator technology in quantum science. He serves as Deputy Division Head of Fermilab's Applied Physics and Superconducting Technology Division. He is the cryomodule test lead for Fermilab's contribution to LCLS-II-HE. He has relevant experience contributing as a member of committees similar to IEEE-PAST, including the Early-Career Member-at-Large for the American Physical Society Division of Physics of Beams (APS DPB), and a member of Fermilab's Scientist Advisory Council (SAC). He has received a number of scientific awards including the IEEE PAST Doctoral Student Award and the Hogil Kim Prize from IPAC.

Statement: I am honored to be nominated for the IEEE NPSS PAST M-A-L. I have been an active member of the accelerator community since I started in the field in 2009, and I believe in the ability of executive committees of societies such as IEEE and APS to benefit researchers in their field. For example, while serving as the Early-Career Member-at-Large for the American Physical Society Division of Physics of Beams (APS DPB), I spearheaded an effort to revive the APS DPB Newsletter, and in 2015, we published the first newsletter since 2008. DPB newsletters have been published annually since then, helping to keep the community informed about new facilities and events, and highlighting student award winners. As a Member-at-Large for IEEE-NPSS PAST, I would seek out similar ways that the PAST committee can benefit community members to encourage their participation, from long-standing members to the next generation of accelerator researchers to join our field.

IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY
PLASMA SCIENCE AND APPLICATIONS EXECUTIVE COMMITTEE ELECTION
For a Three-Year Term 1 January 2022 – 31 December 2024
(Vote for UP to SIX)

NADER BEHDAD (S'99-M'06-SM'12-F'17) received the B.S. degree in Electrical Engineering from Sharif University of Technology in 2000 and the M.S. and Ph.D. degrees in Electrical Engineering from the University of Michigan - Ann Arbor in 2003 and 2006, respectively. Currently he is the McFarland-Bascom Professor in the Department of Electrical and Computer Engineering of the University of Wisconsin-Madison. Dr. Behdad's research expertise is in the area of applied electromagnetics with particular focus on electrically small antennas, phased-array antennas, high-power microwaves, and bio-electromagnetics. He has 21 issued or pending U.S. patents in these areas and has served as consultant to industry and expert witness for different U.S. law firms on topics related to these areas. Over the years, Dr. Behdad's research has been sponsored by various U.S. Federal agencies including the U.S. Navy, U.S. Air Force, U.S. Army, National Science Foundation, and the Defense Health Agency.

Dr. Behdad is the recipient of the Harvey D. Spangler Faculty Scholar Award, the H. I. Romnes Faculty Award, and the Vilas Associates Award from the University of Wisconsin-Madison. He received the 2014 IEEE R.W.P. King Prize Paper Award, and the 2012 IEEE Piergiorgio L. E. Uslenghi Letters Prize Paper Award of the IEEE Antennas and Propagation Society. In 2011, he received the CAREER award from the U.S. National Science Foundation, the Young Investigator Award from the United States Air Force Office of Scientific Research, and the Young Investigator Award from the United States Office of Naval Research. Dr. Behdad served as the 2020 chair of the paper awards committee of the IEEE Antennas and Propagation Society. He also served as an Associate Editor for *IEEE Antennas and Wireless Propagation Letters* (2011-2015) and as the co-chair of the technical program committee of the 2012 IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting. His non-professional interests include piloting light single-engine airplanes, amateur radio operations (call sign AC9AA), and hiking and camping in the mountains.

NICHELE BENNETT (M'21) is a principal member of technical staff at Sandia National Laboratories working in the Inertial Confinement Fusion and Target Design group. She received her Bachelor of Science in Engineering Physics from the United States Military Academy, where she received the Leslie R. Groves Award for Nuclear Physics in 1989. She served as an officer in the U.S. Army for four years and is a combat veteran of the first Gulf War. Dr. Bennett received her Ph.D. in Physics at the University of New Mexico in 1999. Her Ph.D. and post-doctoral research were in High Energy Physics (particles and fields) in experiments conducted at Fermi National Laboratory and Brookhaven National Laboratory. Dr. Bennett transitioned to plasma physics in 2003. Her research history includes experimental, theoretical and computational physics support in the areas of plasma generation and dynamics, z-pinch target design, dense plasma focus devices, particle beam accelerators, pulsed-power drivers, high-power radiographic diodes, particle beam and plasma jet transport. She has supported Sandia's Radiographic Integrated Test Stand, URSA linear-transformer-driver accelerator, and Hermes-III accelerator. She has also supported Los Alamos National Laboratory's Plasma Liner Experiment, DARHT, and the Scorpius project and collaborations at the Nevada National Security Site. She currently conducts power-flow and target research at Sandia's Z machine. Her notable contributions include increased understanding of electrode plasma formation and evolution, magnetized transport, beam-target fusion yield, and plasma-induced impedance collapse.

JOSÉ FERNANDO DINIZ CHUBACI (M'20) received his M.Sc. (1987) and Ph.D. (1996) from the Institute of Physics of the University of São Paulo (São Paulo, Brazil) concentrating his works in radiation effects in insulators and in the formation and characterization of thin films. He was a visiting fellow at the Institute of Scientific and Industrial Research (SANKEN) of Osaka University (Osaka, Japan) (1983-85, 1991-93) during almost 4 years where he started his works on surface characterization and thin film formation for mechanical, optical and electronic applications. He has more than 60 publications in scientific journals and conference proceedings on the formation and characterization of carbon nitride and oxide thin films, ion beam implantation and on the ionizing radiation effects in ionic crystals and minerals and has 2 registered patents. He has joined around 80 international conferences, his publications have been cited more than 770 times in the scientific literature and his h-index is 14. He was a member of the organizing committees of 4 international conferences and co-chaired 2 international workshops. He was Member-at-Large of the International Solid State Dosimetry Organization (ISSDO) from September/2010 until September/2019. Dr. Chubaci is a Doctor Professor at the Institute of Physics of the University of São Paulo in the Ionic Crystals, Thin Films and Dating Laboratory (LACIFID), researching on the formation and characterization of nitride and oxide thin films for hard coatings, optical and electronic applications. Nowadays, his main research theme is the production of thin films of Ga, Ti, Al, Zr and Hf oxides by ion-beam assisted deposition method using RF ion sources in joint project with Brazilian and American Colleagues.

LEANNE DUFFY (M'19) is a scientist in the Applied Electrodynamics (AE) group of the Accelerator Operations and Technology Division at Los Alamos National Laboratory, where she has worked for the last 15 years. She collaborates with organizations laboratory-wide, using computational physics to advance a number of projects. These currently include simulations to understand and improve beam delivery at the Los Alamos Neutron Science Center accelerator, cutting edge simulations of beam propagation in space, and applications of electromagnetism to search for new, fundamental physics. She is a member of the IEEE and American Physical

Society, and active in peer review, participating in LCLS Director's reviews, and DOE SBIR proposal review. Recently, in October 2020, she took over operation of the Los Alamos Accelerator Code Group (LAACG) when former LAACG lead, Frank Krawczyk, retired.

Leanne first joined LANL as a postdoc in 2006, after receiving her Ph.D. from the University of Florida Department of Physics, and her undergraduate degree from the University of Queensland in Australia. She joined the AE group to initially work on the design of the Matter and Radiation In Extremes (MaRIE) X-ray FEL, and now applies her knowledge to physics problems across LANL.

MATTHEW A. FRANZI (GSM'13-M'13-SM'20) received the B.S. degree in Nuclear Engineering from the University of Michigan, Ann Arbor, MI in 2008 and his MS and Ph.D. degrees in Nuclear Engineering from the University of Michigan in 2010 and 2014 respectively. His doctoral thesis focused on the development of novel high power microwave sources with focus on the beam dynamics of the relativistic magnetron. Upon receiving his degree, he took a position at SLAC National Accelerator Laboratory, Menlo Park, CA as a staff scientist from 2014 to 2019. In 2019, he accepted a position at the Air Force Research Laboratory (AFRL) in Albuquerque, NM, where he has been the technical advisor for the high power electromagnetic sources department from 2020 to the present. His areas of expertise include the development and implantation of high-power RF sources, over-moded microwave networks, and high energy electron beam dynamics. Additional research areas encompass the study of cryogenic thin film materials, piezoelectric and non-reciprocal media, as well as high voltage breakdown characterization.

SIVANANDAN (HARI) S. HARILAL (M'11-SM'14) is a chief scientist at the DOE Pacific Northwest National Laboratory (PNNL), Washington, USA. He received the Ph.D. degree in plasma physics from Cochin University of Science & Technology, India in 1998 and was an Alexander Humboldt fellow with the eminent plasma physicist Prof. Hans-Joachim Kunze at Ruhr University of Bochum, Germany during 1999-2001. Prior to joining PNNL in 2014, he worked as an associate professor at the School of Nuclear Engineering, Purdue University, IN (2008-2014) and was a member of the fusion group at the University of California San Diego, CA (2001-2007). He held the Science Foundation of Ireland visiting fellow position at University College Dublin, Ireland (2007-2010) and was a visiting scientist at the Argonne National Laboratory, IL (2007). Dr. Harilal's research interests include laser-plasma interaction, plasma-material interaction, plasma diagnostics, plasma chemistry, plasma sources for lithography and microscopy, etc. He is a recipient of numerous prestigious awards which include: Alexander von Humboldt fellowship (Germany), Stocks lectureship award (Ireland), Council of Scientific and Industrial Research fellowship (India), Paul C. Zmola Faculty Scholar of Nuclear Engineering Award (Purdue University) and excellence in research awards from PNNL and Purdue University. He has authored over 170 peer-reviewed publications with an h-index of 46. He is a fellow of Optical Society of America, Senior member of IEEE, and associate editor of *Optics Letters*. He has served the IEEE NPSS in various levels such as: technical session chair, technical committee member, local organizing committee chair (Chicago, 2011) and guest editor of *IEEE Transactions of Plasma Science*. He is the conference chair of the 2022 ICOPS (Seattle) and chair of NPSS Richland Chapter.

BRAD W. HOFF (S'04-GSM'05-M'10-SM'18) is a Senior Research Physicist at the Air Force Research Laboratory (AFRL). His research background includes high power RF source technology, pulse power systems and diagnostics, PIC modeling, and electromagnetic interactions with high temperature materials. Current research interests involve high power microwave sources, nonlinear transmission lines (NLTLs), microwave-driven plasmas, applications of additive manufacturing techniques to HPDM sources, directed energy interactions with high temperature materials, and mm-wave power beaming. Dr. Hoff holds degrees from the U. S. Naval Academy (B.S. in Physics) as well as the University of Michigan (M.S.E. in Nuclear Engineering, M.S.E. in Electrical Engineering and Ph.D. in Nuclear Engineering). Dr. Hoff is an IEEE Senior Member and a Member of the IEEE Nuclear and Plasma Sciences Society (NPSS). He has served previously on the PSAC ExCom as the chair of the Employment and Careers Subcommittee from 2018-2019 and has also been a guest editor and reviewer for *IEEE Transactions on Plasma Science* and a reviewer for *IEEE Transactions on Electron Devices*. In 2020, Dr. Hoff worked with PSAC ExCom voting members to initiate a successful motion to include student representative positions on the ExCom.

DEBORAH LEVIN (M'18) is a Professor of Aeronautics and Astronautics at the University of Illinois at Urbana-Champaign. She received her Ph.D. in Chemistry from the California Institute of Technology in 1979, and B.S. in Chemistry from the State University of New York at Stony Brook in 1974. Prior to coming to UIUC she held positions in academia since 1998 in Aerospace Engineering and Chemistry at the Pennsylvania State University and George Washington University. She was a research staff member and a task leader at the Institute for Defense Analyses, Science & Technology and Systems Evaluation Divisions, for programs conducted by the Office of the Secretary of Defense from 1979-1998. Professor Levin's research interests include topics in plasma physics, the space environment and space propulsion, hypersonics, and chemically reacting/aerospace engineering flows. Most of her research techniques utilize particle kinetic approaches such as direct simulation Monte Carlo (DSMC), particle-in-cell, and molecular dynamics. With respect to the first two approaches she has developed new algorithms using three-dimensional unstructured grids that can be used to couple both heavy particle gas collisions (DSMC) in an electrostatic plasma environment (PIC). Her kinetic plasma algorithms that have been developed for the space environment are just beginning to provide an understanding of fundamental electron turbulence and will help us to understand ion beam neutralization mechanisms that previously could only be inferred from measurements. Professor Levin is a fellow of the American Institute for Aeronautic and Astronautics (AIAA) and is a past chairman

of the AIAA Plasmadynamics and Lasers Technical Committee. She hosted and chaired the 27th International Symposium on Rarefied Gas Dynamics in July 2010 and is a member of its International Advisory Committee. She has co-authored more than 140 journal publications and has supervised more than 40 graduate student theses. Her recent awards related to plasmas include the ICOPS2020 Student Paper Award Winner, N. Nakul and D. Levin, “Kinetic Modeling of Snapover on Spacecraft Solar-Panel Surfaces” and the 2019 SIAM Conference on Computational Science and Engineering, Spokane Washington, Feb. 25 - Mar 1, 2019, Co-recipient, in recognition of outstanding quality and presentation of a poster entitled “CHAOS PIC-DSMC for Plasma-Plume Simulations.”

LOUISE WILLINGALE (AM’15-M’21) conducts experimental research in intense laser-plasma interactions, including laser-driven ion acceleration, relativistic laser propagation through underdense and near-critical density plasmas, direct laser acceleration, and proton radiography to study electric and magnetic fields generated during the laser-plasma interactions. Louise has a Plasma Physics background (MSci 2003, Ph.D. 2007 Imperial College, London), and joined the University of Michigan in 2008 as a Postdoctoral Researcher, then became an Assistant Research Scientist in the Department of Nuclear Engineering and Radiological Sciences in 2011. In 2014, she joined the Department of Electrical Engineering and Computer Science as an Assistant Professor. Louise received an NSF CAREER Award for research in magnetic reconnection in plasmas, is a Co-I on the NSF funded ZEUS laser facility project, and is a Co-chair for the Multi-Petawatt Physics Prioritization (MP3) workshop.

FERNANDA S. YAMASAKI (GSM’15-M’17) received the B.Sc. degree in Telecommunication Technology from the University of Campinas, Limeira, Brazil, in 2010 and the M.Sc. and D.Sc. in Engineering and Space Technology from the National Institute for Space Research (INPE), São José dos Campos, Brazil, in 2013 and 2017, respectively. Since 2010, she has been with the Associated Plasma Laboratory, INPE, working on nonlinear transmission lines for RF generation. Since 2010 she is a member of a project funded by the Air Force Office of Scientific Research (AFOSR) through the Southern Office of Aerospace Research and Development (SOARD). From 2011 to 2013, she developed SPICE models to simulate nonlinear dielectric lines. Since 2013 she is working on gyromagnetic nonlinear transmission lines for RF generation, exploring two different alternatives, the best known by using solenoid and the innovative solution by using permanent magnets, that have promising results. During her Ph.D. program in 2015, Dr. Yamasaki was an international visitor at the Department of Electrical and Computer Engineering, University of New Mexico, Albuquerque, NM, USA. In this period, she received the Best Student Paper Award on gyromagnetic line simulations at the IEEE International Pulsed Power Conference in 2015, Austin, TX, USA. In 2019, the Windows on Science Program (SOARD/AFSOR) supported her participation in the 2019 Pulsed Power Conference, Orlando, FL, USA. She is now a postdoctoral fellow at INPE, working on gyromagnetic nonlinear transmission lines used in compact pulsed power supplies and RF generation sources for space and defense systems. Dr. Yamasaki is a reviewer of the *Applied Physics Letters* since 2014 and of the *IEEE Transactions on Plasma Science* since 2016.

IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY
PULSED POWER SCIENCE AND TECHNOLOGY TECHNICAL COMMITTEE ELECTION
For a Four-Year Term 1 January 2022 – 31 December 2025
(Vote for UP to FOUR)

BRAXTON BRAGG (GSM'10-M'12) received BSEE (2009), MSEE (2010), and Ph.D. (2012) degrees from Texas Tech University. His graduate studies were with the Center for Pulsed Power and Power Electronics with specific focus on pulsed power systems and solid-state high power microwave source research. Since graduation, Braxton has worked at Lockheed Martin Missiles and Fire Control where he has worked on development of compact pulsed-power systems and HPM sources including solid-state and vacuum-tube systems. Additionally, Braxton has worked on ground-based radar systems, missile seekers, and conformal antennas. While at Lockheed Martin, Braxton has interacted with various university research projects and pushed for greater collaboration between industry and academia specifically focused on pulsed-power and high-power microwave research. His volunteer experience includes being a technical journal reviewer and supporting Science, Technology, Engineering, and Mathematics (STEM) activities at Lockheed Martin.

Statement: Being exposed to pulsed power early in my academic career was a pivotal moment in my desire to get graduate level degrees. The field is fascinating and can often times make other aspects of engineering feel quite banal. While I know our field of electrical engineering is full of exciting research fields, providing a stronger voice for pulsed-power and high-power microwave sources from the perspective of industry is an exciting opportunity. I find it paramount that industry, research laboratories, and academia continue to collaborate, grow, and drive technology forward. In such a niche field, the need for student and professional engagement is critical. IEEE, NPSS, and PPST open these channels through dedicated journal articles and international conferences. It would be an honor to have the opportunity to be involved in some of the planning aspects for this community.

PRAVEEN DESIREDDY (M'16-SM'16) received his master's degree in electrical engineering from Indian Institute of Technology (IIT), Kanpur in 2005. He joined Bhabha Atomic Research Center, India in the same year and served as a Scientific Officer in the Accelerators & Pulsed Power Division until 2012. During that time, he worked on various pulsed-power projects for applications related to accelerators, electromagnetic forming, and lasers. The pulsed-power sources developed for these applications have output voltage of 10 to 300 kV and operate at a repetition rate of 1 kHz. He has published 14 peer-reviewed journal papers and 13 conference papers as part of this work. Praveen moved to the United States in 2013 and started working at TDK-Lambda Americas Inc. He is presently working as Sr. Engineering Manager at TDK-Lambda overseeing the design and development of programmable low-voltage DC power supplies for various industrial applications and high-voltage capacitor charging power supplies for pulsed-power applications. He worked as a reviewer for many peer-reviewed journals including several IEEE journals and the *Review of Scientific Instruments*. He was part of the technical committee for conferences such as the International Power Modulator and High Voltage Conference (IPMHVC) and International Conference on Plasma Science (ICOPS). He was recognized as an IEEE Senior Member in 2017.

Statement: I have spent the last 16 years working to advance the state-of-the-art in the fields of pulsed-power, high-voltage, and power electronics. During this time, I have had the privilege of working with, and learning from, leaders in the pulsed power community. My journey from understanding a simple triggered spark gap to a solid-state MARX generator and linear transformer driver trying to attain a nice flat-top pulse for each application has been quite interesting. I believe, this fundamental knowledge with a product orientation would be of great benefit to the PPST Committee. I look forward to facilitating growth in our field via collaboration across government and private institutions, outreach to young engineers, and cross-discipline interactions. I would be honored to serve as a member of the Pulse Power Science and Technology committee and help ensure that our field continues to grow and provide young engineers with many learning opportunities through webinars and workshops.

STEVEN C. EXELBY (GSM'17-M'19) received the BSE (2013) and Ph.D. (2019) from the University of Michigan. His research at the University of Michigan focused on plasma physics, pulsed power and high-power microwave devices. After graduation he joined the Air Force Research Laboratory as a research physicist where he continues to work designing and experimenting with high-power, pulsed microwave sources. He has been a member/student member of IEEE for 4 years.

Statement: IEEE and PPST in particular has been a critical component of my professional experience. I first attended and presented research at the Pulsed Power Conference in 2015, in Austin, TX. It was an enjoyable and memorable experience and the first time I had the opportunity to reach out to the greater pulsed-power community and receive valuable insight from accomplished professionals in the field. Since then I have been fortunate to attend other PPST conferences and strengthen professional relationships and showcase the development of my research. By serving on the PPST committee I believe I would be an asset to the pulsed-power community. At the University of Michigan, I enjoyed the technical challenges associated with the design and construction of a novel, pulsed, high-power microwave source and the fabrication of supporting hardware and diagnostics, required to operate the source and analyze its performance. Since beginning work at the Air Force Research Laboratory, I have continued this work with increased focus on system development and application.

JOSHUA A. GILBRECH (S'03-M'04-SM'19) received his BSEE (2005) from the University of Arkansas, and his MSEE (2015) from the University of New Mexico. Since his graduation in 2005 he has focused his work on power electronics, high-voltage modulators, and pulsed-power systems and technology with a variety of companies. His work has led to designing, building, testing, and installing systems for Air Force Research Labs, Sandia National Labs, Lawrence Livermore National Labs, Atomic Weapons Establishment, Naval Surface Warfare Center, and a variety of other customers. Most recently he has been hired by Leidos to work on the development of innovative and novel high-power microwave systems. During his career he has been a member of IEEE for 12 years, including 2 years as a student where he served as secretary and president of the student branch. He holds 3 patents with the USPTO and 2 patents with the WIPO, all for pulsed-power technology. He volunteers yearly for the Bosque Academy's Living Library interviews. He also began and runs the local branch of a 501(c)3 educational non-profit, Albuquerque Sword Labs- A HEMA Alliance Affiliate. Here he teaches historical swordplay and martial arts directly from historical sources and teaches the history behind the arts. The school does outreach visits to local schools, Boy Scout clubs, and other venues.

Statement: I have always been happy to be part of the IEEE and its mission. I have been entranced by pulsed power since my first job with Kaiser System Inc (2005), designing resonant chargers and magnetic modulators for excimer laser systems. I have been lucky early in my career to have always been placed under extremely experienced leaders in the pulsed-power field. As I get further and further into my career, I'm finding more and more that now it's my turn to take on these responsibilities of teaching and instructing the next generation of pulse-power engineers. As an engineer closing in on mid-career I am looking more and more at opportunities to serve our niche community in pulsed power. Since I have spent most of my career in fast-paced smaller companies I find that I have worked on most types of pulsed-power archetypes and systems. Working at places like North Star Research allowed me to work on systems that went all over the world for a variety of customers and programs. Likewise now at Leidos, I'm finding my world opened back up to deliver systems to support fascinating programs. One of my early mentors had a saying, "Pulsed power is a solution looking for a problem to solve." We are in exciting times, where finally pulsed power is finding problems to solve outside of the laboratory setting.

TOM HUISKAMP (M'16) Dr. Tom Huiskamp received his Ph.D. degree (with honors) in electrical engineering from Eindhoven University of Technology (TU/e), Eindhoven, The Netherlands, in 2015, where he currently works as (tenured) assistant professor. His main area of expertise is flexible, adjustable parameter (sub)nanosecond pulse source development and applications of these sources such as transient plasmas for air purification and plasma-activated water generation. As a visiting researcher he worked at the Kumamoto University in Japan, the University of Southern California in Los Angeles and the Leibniz Institute for Plasma Science and Technology (INP Greifswald) in Germany. He was awarded the Best Student award at the 2014 EAPPC, as well as multiple travel grants for excellence. In 2018 he was awarded the very prestigious and competitive Dutch VENI grant to work on flexible pulses for a better environment. In the last years, he secured over 6 MEuro in research funding and established research collaborations with other pulsed-power and plasma groups, such as the University of Southern California in Los Angeles, the University of Pau, Instituto Superior de Engenharia de Lisboa, Kumamoto University, Loughborough University, INP Greifswald and the Chinese Academy of Sciences. Furthermore, he is involved in the organization of international pulsed-power and plasma conferences such as the EAPPC (2020 and 2024) and Hakone (2020). He has (co)authored 33 peer-reviewed journal papers, two book chapters, two patents and over 60 conference contributions, including 5 invited talks.

Statement: During my work on nanosecond pulsed-power technology for transient plasma generation I have initiated and fostered many international collaborations. What started as taking the first steps out of the lab as a young researcher quickly turned into a joyous travel into the international world of pulsed power and plasma. I have come to see that international collaboration brings value to my professional and even personal life in ways that I could not have foreseen. We may come from different cultural backgrounds, but sitting down to a traditional Japanese 12-course dinner, or at a German Brauhaus or Texas BBQ restaurant, we all speak the same language of kA and kV. And every pulsed-power lab smells of transformer oil! I fully believe that such collaborations bring our field forward in new and exciting ways. I believe that my experience in international collaboration would be of great benefit to the PPST committee and I would be honored to serve as a member of this committee to help advance the field and help others on their own journey into the wonderful world of pulsed power.

JOHN KRILE (S'03-M'06) Dr. John Krile received his Ph.D. in electrical engineering from Texas Tech University (TTU) in 2006 and served as a Senior Research Associate for the Center for Pulsed Power and Power Electronics until 2012. During that time, he received the Tom R. Burkes Outstanding Graduate Student Award and the EAPPC Young Scientist Award. Dr. Krile moved to the Naval Surface Warfare Center, Dahlgren Division (NSWCDD) in 2012 where he served as both program lead and technical lead on numerous High Power RF (HPRF) programs involving Advanced RF Source Research, HPRF Susceptibility Testing & Evaluation, Modeling & Simulation, and Prototype System Development in support of ONR, DTRA, AFRL, and JNLWD. He worked extensively with these funding agencies to influence future HPRF and Directed Energy (DE) research via Road Maps, STTR, SBIR, and RFI solicitation development. Dr. Krile served as the Payload Driver Chief Engineer for the High Power Joint Electromagnetic Non-Kinetic Strike (HiJENKS) program before accepting a role as the Directed Energy Group Lead at Scientific Applications and Research Associates (SARA) where he continues his work on pulsed power and DE development. He has published 24 peer-reviewed journal papers and given 25 domestic and international presentations with 4 invited talks.

Statement: I have spent the last 15 years working to advance the state-of-the-art in the fields of pulsed power, plasma physics, and High Power Microwaves. During this time, I have had the privilege of working with, and learning from, leaders in the pulsed-power community. I believe the knowledge I have gained and the professional relationships I have fostered would be of great benefit to the PPST Committee. I look forward to facilitating growth in our field via collaboration across government and private institutions, outreach to young engineers, and cross-discipline interactions. I would be honored to serve as a member of the Pulsed Power Science and Technology committee and help ensure that our field continues to grow and provide young scientists with the opportunities I have been given.

JON CAMERON POUNCEY (M'05-SM'21) is a pulsed-power engineer currently employed at the Naval Surface Warfare Center Dahlgren Division in Virginia, USA. A native of northwest Florida, he obtained his bachelor's degree in electrical engineering degree in 2003 from Florida State University. After obtaining his bachelor's degree, Cameron spent 10 years working as an engineer for various defense contractors. His work experience includes the design of power distribution systems, safety-critical military vehicle systems, embedded controls, counter-IED systems, and high-voltage pulsed-power systems. Cameron returned to school at the University of New Mexico in 2014 where he earned a master's degree in 2017 and his Ph.D. in 2020 under the advisement of Professor Jane Lehr. His doctoral research focused on the development of novel high-voltage and pulsed-power technologies for application in directed energy weapons. Cameron was the recipient of the 2020 IEEE NPSS Robert J Barker Graduate Student Award for Excellence in Pulsed Power Applications. He currently lives in Fredericksburg, Virginia with his wonderful wife, Carmen Hagin. They are both very happy to be back on the east coast after many years so far from home.

Statement: If elected to the PPST Technical Committee, I would make it my primary focus to establish ways to encourage young engineers to join the pulsed-power community. Many young engineers starting in pulsed power are not graduates of established pulsed-power university programs and do not have the ties to the larger technical community that will help them grow in the field. The PPST TC must advocate for these young engineers to grow in the profession, participate in our activities and, most importantly, ensure a positive first interaction with the community.

HONG-JE RYOO (M'17-SM'20) received his B.S. (1991), M.S. (1995), and Ph.D. (2001) in electrical engineering from Sungkyunkwan University in Seoul, South Korea. From 2004 to 2005, he was a Visiting Scholar with WEMPEC at the University of Wisconsin Madison. From 1996 to 2015, he joined the Electric Propulsion Research Division as a Principal Research Engineer at the Korea Electrotechnology Research Institute in Changwon, South Korea, where he was a leader in the Pulsed Power World Class Laboratory and director of Electric Propulsion Research Center. From 2005 to 2015, he was a Professor at the Department of Energy Conversion Technology at the University of Science and Technology in Daejeon, South Korea. In 2015, he joined the School of Energy Systems Engineering at Chung-Ang University in Seoul, where he is currently a Professor. His current research interests include pulsed-power systems and their applications, as well as high-power and high-voltage conversions. Dr. Ryoo is also an Academic Director for the Korean Institute of Power Electronics, an International Cooperation Director for the Korean Institute of Electrical Engineers, and Vice President of the Korean Institute of Illuminations and Electrical Installation Engineers.

Major positions and accomplishments in the research field of pulsed power science & technology:

- Chair of the Pulsed Power and Application Committee for the Korean Institute of Power Electronics, March, 2021 ~
- Guest Editor of the *Transactions on Plasma Science Special Issues* for EAPPC/BEAMS/MEGAGAUSS 2016, Nov. 2016 ~ Oct. 2017
- International Organizing Committee member of the Euro-Asian Pulsed Power Conference, Jan. 2014 ~
- Technical Committee member of the IEEE IPMHVC (International Power Modulator and High Voltage Conference), Mar. 2013 ~
- Director of the Electric Propulsion Center in Korea Electrotechnology Research Institute (hereafter referred as KERI), Nov. 2014 ~ Aug. 2015
- Lab leader of the Pulsed Power WCL(world class lab.) in KERI, Nov. 2010 ~ Aug. 2015
- Team leader of the Pulsed Power Team in KERI, July, 2007 ~ Aug. 2015
- Published 20 papers in IEEE transactions (TPS, TDEI, TIE, TPE) during last 5 years (2016~2020)

Statement: I have been contributing to the field of pulse-power technology in Korea for the past 20 years. I have led various research related to the compact, high-efficiency, high-density solid-state modulator incorporating modern power electronics technology, and I am very interested in the opportunity for academic exchange and technical cooperation with advanced engineers abroad.

I am confident that I can make a strong contribution as a member of the PPST committee and this position will allow me to interact and collaborate with other researchers in the plasma application department. I hope to have the opportunity to help expand PPST's global research activities.

TAO SHAO (M'10-SM'12) was born in Hubei, China, in 1977. He received the B.Sc. degree from the Wuhan University of Hydraulic and Electrical Engineering, Wuhan, China, in 2000, the M.Sc. degree in electrical engineering from Wuhan University, Wuhan, in 2003, and the Ph.D. degree in electrical engineering from the Graduate University, Chinese Academy of Sciences (CAS), Beijing, China, in 2006. He joined the Institute of Electrical Engineering, CAS, after graduation, where he has been a Professor since Oct 2013. He was a Visiting Scholar with the ECE Department in the University of New Mexico, Albuquerque, NM, USA, from 2011 to 2012, and was a Senior Visiting Scholar in the Queensland University of Technology, Brisbane, QLD, Australia, in Jan-March, 2020. He worked as a Principal Investigator supported by the National Science Fund for Excellent Young Scholars in 2012 and by the National Science Fund for Distinguished Young Scholars in 2019. He was awarded a Royal Society-Newton Advanced Fellowship, UK in 2015. He was the William Dunbar Award recipient of IEEE IPMHVC2018. Dr. Shao has published over 200 papers, which consist of 100+ international refereed journal papers (50 IEEE Transactions, etc.) and 100+ domestic journal papers, and 40+ IEEE international conference papers/abstracts. He is an Associate EIC of the High Voltage, academic editor of the *Laser and Particle Beams*, an Editorial Board Member of the *Plasma Processes and Polymers*, the *Plasma Science and Technology*, the *Plasma Research Express*, and some domestic journals.

Dr. Shao is a Fellow of the Institution of Engineering and Technology (IET) and an active member of both IEEE and NPSS since 2010. His previous volunteer experience includes serving as an Associate Editor of the *IEEE Transactions on Dielectrics and Electrical Insulation* (TDEI), and a Co-Guest Editor of the IEEE TDEI of the Special Issue on Power Modulators and Repetitive Pulsed Power in 2015 and 2019. He served as a Co-Guest Editor of the *IEEE Transactions on Plasma Science* (TPS) of the Special Issue on Invited and Plenary Speakers of the ICOPS 2015, and as a Chief-Guest Editor of the IEEE TPS of the Special Issue on Atmospheric Pressure Plasmas and Their Applications in 2016. He was the Technical Area Chair for Area 7: Pulsed Power and Other Plasma Applications of ICOPS 2017, VISA Chair, Technical Program Committee Member of IPMHVC 2016 and IPMHVC 2018, and the International Committee Member of ICOPS 2016. He will be the General Chair of the ICOPS 2024 in Beijing.

Statement: Since 2010, I have been an IEEE member and attended the IEEE International conferences related to plasma science and pulsed power regularly, such as IPMHVC, ICOPS, and PPC. I am also an active volunteer as an IPMHVC Technical Committee member and conference VISA Chair, and other IEEE conferences' session chair. My current work is gas discharge & breakdown, and atmospheric-pressure plasma applications driven by pulsed power, it is very important for expanding plasma application and dielectric breakdown technology used for pulsed power technology, so it is a great honor to be nominated for this membership on the IEEE Pulsed Power Science and Technology Committee. If elected, I will volunteer my time to serve the committee and promote its growth, especially, encourage the communications between IEEE PPST and China. I will try to promote further scientific and educational activities, to encourage Chinese scientists to participate in IEEE PPST activities.

JACOB C. STEPHENS (S'08-GSM'13-M'14) received the degrees of BSEE (2011), MSEE (2011), and Ph.D, (2015) in electrical engineering from Texas Tech University, while conducting pulsed-power and plasma-science research at the Texas Tech University Center for Pulsed Power and Power Electronics. During this time, he also conducted research with Sandia National Laboratories in the area of radiation effects testing, utilizing the Saturn, HERMES III, and SPHINX pulsed-power machines. Following the completion of his Ph.D., Dr. Stephens joined the Massachusetts Institute of Technology as a post-doctoral researcher, and later staff scientist in the Plasma Science and Fusion Center, conducting research in the fields high-power microwave sources and low-temperature plasma science. Dr. Stephens was previously a Technical Area Coordinator for the 2019 Pulsed Power and Plasma Science Conference.

Statement: Over the years, I have benefitted as a regular participant in NPSS activities and would appreciate the opportunity to give back to the community. My research has ranged from pulsed power and low-temperature plasmas (Texas Tech and MIT), high-power microwave and THz sources (Texas Tech and MIT), and high-energy-density plasma science (Texas Tech and Sandia National Laboratories). The breadth, yet tremendous overlap of these technologies is what I love most about the pulsed-power community. While certainly a critical technology, with tremendous opportunity for societal impact, pulsed power is also a promising field for young engineers and scientists. In serving on PPST, I aim to make a tangible contribution to the NPSS and support professional and technical pulsed-power activity in the community.

MARTIAL TOURY (M'13) received the Engineering degree from the School of Energy Engineering of the University of Lorraine (ENSEM), Nancy, France, in 2002. He joined the French Alternative Energies and Atomic Energy Commission (CEA), Moronvilliers, France, where he was involved in pulsed power and electron beam studies for flash X-ray radiography. In 2012, he joined the CEA, Gramat, France, where he was in charge of radiographic electron diode experiments and dual pulse studies on a 1-MV linear transformer driver. From 2015 to 2017, he was seconded by CEA to the Atomic Weapons Establishment, U.K., to take part in the assembly and the commissioning of an 8-MV inductive voltage adder for flash X-ray radiographic application. Since 2018 he has been the team leader of the CEA group in Gramat in charge of pulsed-power developments for radiation effects and flash X-ray radiography.

In 2017 he took part of the organization of the IEEE Pulsed Power Conference in Brighton as technical chair deputy. In 2019 he was technical area chair and member of the award comity of the IEEE Pulsed Power and Plasma Science Conference IEEE in Orlando.

Statement: Pulsed Power is for me a key area for many technical applications in research and in industry. Serving on the Pulsed Power Science and Technology Committee would be a good means to be more involved in the promotion of pulsed-power technology throughout the world and to encourage exchanges among the pulsed-power community. Moreover, I very much enjoyed taking part in the organization of the 2017 IEEE Pulsed Power Conference as technical chair deputy. Now I would like to go further in the organization process of the conferences. I would be proud to join you as a new member of the IEEE Pulsed Power Sciences and Technology Committee.

IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY ELECTION

RADIATION INSTRUMENTATION STEERING COMMITTEE ELECTION

For a Three-Year Term 1 January 2022 – 31 December 2024

(Vote for UP to FIVE)

CHRISTIAN BOHM (M'84-SM'08-LS'17) has been a professor in instrumentation physics at Stockholm University in Sweden since 1987. He received a Ph.D. in nuclear physics 1979 at Stockholm University on a thesis about applying Mössbauer Spectroscopy for studies of material properties. At UCLA he became involved in detector electronics and image reconstruction for PET. In Stockholm he worked together with L. Eriksson developing the first Swedish positron camera. A second camera was developed together with the Swedish company Scanditronix who later sold their PET activities to GE. Together with T. Greitz from Karolinska hospital and others he developed a computerized brain atlas. The major part of the activity of the instrumentation research group concerned instrument development for particle physics. The group has participated in the initial R&D for LHC detectors at CERN and later in the development and upgrade of the ATLAS detector, more specifically with the development of readout electronics for the hadron calorimeter and the first level calorimeter trigger. For a long period, he was the upgrade coordinator for the ATLAS hadron calorimeter. The group has also been involved in instrumentation development for XFEL at DESY and IceCube at the South Pole. His interests cover electronics hardware, software, statistical processes and algorithms as well as fundamental physics in general.

He has organized conferences in different capacities and has been a member of NPSS ADCOM, latest as the chairman of the TransNational Committee from 2015 to 2020. Here he was involved in organizing instrumentations schools in Vietnam, South Africa, Malaysia and Senegal where mostly local students learn and participate in exercises about nuclear physics instrumentation.

Statement: My interest in becoming a member of RISC is to assist in the further development of the NSS/MIC conference that has been my "home" conference since the 70's. The COVID time has been very trying for conference organizers although the fallback virtual form has been surprisingly successful. Now that we, hopefully, return to more normal times, it will be interesting to combine the standard conference format with recent virtual experiences. This should be regarded as an opportunity in the endeavor to expand the impact of the conference and allow it to cover new geographical areas as well as encouraging emerging interest in developing countries.

GRZEGORZ W. DEPTUCH (M'99-SM'07) received M.Sc. in electronics from the AGH University of Science and Technology (AGH-UST), Krakow, Poland, in 1996, Ph.D. in physics-electronics jointly from Université Louis Pasteur, Strasbourg, France, and AGH-UST, in 2002, and D.Sc. in electronics in 2014 from AGH-UST. He was research assistant at AGH-UST in 1996, then post-doc at Laboratoire d'Electronique et Physique des Systèmes Instrumentaux, Strasbourg, France from 2002 to 2004. He joined the Instrumentation Division at Brookhaven National Laboratory (BNL) in 2005. Later, he was with Fermi National Accelerator Laboratory from 2007-2019, where he was the ASIC Development Group leader. In 2019, he returned to BNL as a senior scientist. He pioneered the Monolithic Active Pixel Sensors technology for high precision tracking, three-dimensional integration for pixel detectors for X-rays detection and contributed to cryogenically-operated integrated electronics for reading out signals from liquid noble gases detectors. He is an author or co-author of about 135 publications, holds 9 US patents, and received IEEE NPSS Radiation Instrumentation Early Career Award in 2008. His research interests are on nuclear electronics with emphasis on mixed-mode, readout integrated circuits, semiconductor sensors, high density interconnect technologies, application in extreme environments and processing of signals in such systems.

Statement: Research on radiation detectors, integrated electronics, and processing signals from these detectors fill up my career. My first design was in a 1.2 um CMOS process, I work in deca-nanometer nodes now. I have been looking comprehensively into developments of new detector systems, aiming at not ignoring details of individual components, i.e. a sensor, readout integrated circuit, data acquisition, but also their interplay to build instruments for collection of good sets of data. I seek for innovative technologies allowing bringing new generations of devices with more in-situ processing to life. If elected to RISC, I would work in a similar manner seeking for cohesion, helping to maximize benefits to the radiation instrumentation community through carrying about the emphasis on core components and justifying their specifications by good understanding of applications. I would be advocating for such a balanced content for the benefits of NSS/MIC/RTSD meetings programs. I have contributed presentations to IEEE meetings over many years, while my first meeting was in 2001. Since 2009, I have been regularly involved in shaping of the meetings through serving as topic convener for the sessions. I trust that my experience and intrinsic curiosity would make me an effective member of RISC.

FARAH FAHIM (GSM'10-M'15) I have been developing readout integrated circuits for radiation detector for over 15 years, during this time I have actively participated in presenting at and organizing conferences/ workshops. I currently head the ASIC Research and Development Department at Fermi National Accelerator Laboratory, where I was instrumental in growing from a group of 8 engineers to a department of 20 people.

Statement: Professional societies and conferences play an influencing role in not just disseminating new information but also in establishing a network crucial for future partnerships and collaborations. I am particularly interested in contributing to the growth in the field of radiation instrumentation by bringing together academic, national lab and industrial communities together creating a mutually beneficial ecosystem. It is synergistic to my role in the Snowmass process where I am a liaison between the community engagement and instrumentation frontier. Currently, radiation instrumentation is at a crossroads balancing the requirements for highly granular, precision sensing and the resulting data explosion. Some of the novel solutions required, need a collaborative community effort and I believe RISC can play a role facilitating collaborations and increasing technology accessibility.

This position would offer me a unique opportunity to view the differences in methods and approaches, while contributing a different perspective to scientific and educational activities beneficial to the RISC Community.

ZHEN-AN LIU (M'07-SM'12) is a physicist in the Experimental Physics Division (EPD) at the Institute of High Energy Physics (IHEP), Chinese Academy of Sciences (CAS), and a Professor at University of Chinese Academy of Sciences (UCAS), Beijing China. He received a B.S. in Experimental Physics from University of Science and Technology of China (USTC) in 1983 and M.S. in High Energy Physics from Graduate School of Chinese Academy of Sciences (GUCAS which transformed to UCAS later) in 1988 and a Ph. D in Particle Physics from UCAS China in 1999. He visited GSI, Darmstadt Germany and CERN Geneva in 90's as a visiting scientist for years, and joined again IHEP Beijing to design and construct the trigger system for Beijing Spectrometer (BES III) in year 2001 with a completion in 2008. He has been leading a group, which has active research programs in instrumentation development for particle physics, plays a leading role in TDAQ development in PANDA experiment (since 2007 to present), the overall readout for Belle II experiment (Belle2link) since 2008 to 2018, the readout and data reduction system for Belle II/PXD detector(ONSEN) since 2010 to 2019, the Concentration, preprocessing and Fanout (CPPF) for CMS L1 trigger system Phase I upgrade since 2013 to 2017, and RPC Backend Electronics and trigger concentrator for CMS Phase II upgrade since 2018 and CEPC TDAQ R&D activities.

Statement: I have carried out research on radiation instrumentation for much of my career. If elected to RISC member at Large, I would work with RISC to enhance its core functions as member, helping to improve the communication between RISC and NPSS members, maximize benefit to attendees of NSS/MIC/RTSD meetings, and advocating initiatives of value to the radiation instrumentation community. I would help to foster an environment that will attract more young scientists into our field, with my experience in CANPS member, TNC member and elected RISC Member (previous). I have contributed presentations to IEEE/NPSS meetings over years, and participated in several NPSS meetings as an organizing committee member (Local Chair for Real Time Conference 2009 in China, Asia-Pacific Liaison Co-Chair NSS-MIC2013 in Korea, Scientific Committee Co-chair for RT2014 in Japan and RT2016 in Italy, NPSS Membership Booth running in SOFE2017 in Shanghai, and TIPP2017 as General Chair in Beijing), all of which have given me insight to be an effective member to RISC.

Should I be elected, I am willing and able to serve on RISC again and better.

ERIC J. MANNEL (M'17) is an electrical engineer at Brookhaven National Laboratory. He received his B.A. from Wabash College in 1983 and his Ph.D. from the University of Notre Dame in 1991. His thesis research in high energy particle physics was done at Fermi National Accelerator Laboratory. He was a postdoctoral research associate at Columbia University, Nevis Labs and after 3 years was promoted to Research Science Associate. While at Columbia University, Nevis Labs he was involved with the design, construction and running of a Flash ADC based data acquisition system for the HiRes Fly's Eye Experiment and was later the Project Electrical Engineer for the PHENIX VTX and FVTX upgrades. In 2011, he joined Brookhaven National Laboratory where he continued to work on the PHENIX project in his role as Project Electrical Engineer for the PHENIX VTX and FVTX upgrades. Currently he is overseeing the electronics design and implementation for the sPHENIX calorimeter detectors as a level-2 manager. His ongoing interest is in developing detectors and electronics for heavy ion and particle physics experiments with a focus on system design. He has been a regular attendee presenting at NSS/MIC conferences and has served as co-convener (Sydney 2018) and Session Chair (Sydney 2018, Manchester 2019) and Reviewer (Virtual Yokohama 2021).

Statement: Throughout the course of my career, I have been actively involved in the design, fabrication and installation of state-of-the-art electronics for High Energy and Nuclear physics experiments. The diversity of the projects I have worked on has given me an opportunity to interact with a broad group scientist and engineers from around the world that have helped me develop the skills need to further my career. The IEEE NSS/MIC conference provides a forum in which scientists, engineers, and students can present their work to large international audience of peers. As a member of the Radiation Instrumentation Steering Committee (RISC), my goal is to work with members of the NSS/MIC community at all levels to foster a framework where new ideas can be freely shared allowing all members to grow. An important aspect of this is to create an environment that is diverse and free of any bias and promote events that allow members to freely interact and exchange ideas in an ever-changing environment.

ANDRE SOPCZAK (M'07-SM'11) is Associate Professor at the Institute of Experimental and Applied Physics (IEAP), Czech Technical University (CTU) in Prague. IEEE member since 2006, senior member since 2011, RISC member 2016-2018. Since 2017 president of the Nuclear & Plasma Sciences Chapter of the IEEE Czechoslovakia Section. Since 2019 member of the NPSS Transnational Committee, 2021 founder of the Life Member Affinity Group, for IEEE Region 8 Czechoslovakia. Undergraduate studies in mathematics and physics at Munich University, 1992 Ph.D. University of California, San Diego, Isidor I. Rabi Diploma for Best Students at Erice School. CERN and DESY Fellowships, teaching and research assistant at Karlsruhe University. 2001 faculty member at Lancaster University, tenured 2004. Since 2012 Czech Technical University in Prague, ATLAS group leader. Research on radiation hardness of CCD detectors, application of Medipix, Timepix and Timepix3 detectors, accelerator R&D (collimators), searches for new particles and Higgs boson physics. Forward Detector applications at LHC. Major collaborations L3, DELPHI, LCFI, D-zero and ATLAS. Several TNS publications as leading author, >120 individual publications.

Statement: With the privilege and opportunity to bring my professionalism and dedication to foster the important goals of the IEEE, I would be delighted to expand my IEEE engagement and serve as a member of the Radiation Instrumentation Steering Committee (RISC). Having strong specific qualifications, experience, abilities and motivation for the Radiation Instrumentation Technical Committee (RITC), as a member of the RISC I can contribute to several areas:

- contribute to advancements of theory and applications of Ionizing Radiation Instrumentation
- give a positive image of the detectors based on successful applications
- promote the detector technology advancements for further applications
- serve as ambassador between the large Collaborations and RISC
- find efficient ways to explain detector advancements understandably
- much experience with electronic learning and an e-learning project in an international consortium
- successful with fund raising for School organizations
- with participation in most IEEE NSS/MIC conferences since 2005, supporting the JOS,
- supporting the Awards committee with experience of student selection and successfully supporting and initiating RISC Glenn Knoll awards

MARC-ANDRÉ TÉTRAULT (S'00-M'03) had his first contact with PET molecular imaging in the early 2000's where he worked on the original Sherbrooke PET. This sparked his continuing career in PET instrumentation research, where he has so far contributed to three generations of scanners for their data acquisition systems, real-time signal processing and overall systems integration. His work awarded him a Master and Ph.D. in electrical engineering from Université de Sherbrooke, and his overall contributions have earned him the 2016 IEEE Radiation Instrumentation Early Career Award from the NPSS and the 2017 Douglas R. Colton Medal for Research Excellence (CMC Microsystems, Canada). Following his Ph.D. on integrated SPAD detectors, he continued his career through a Postdoctoral fellowship at MGH/Harvard Medical School where he has contributed to a high-resolution PET brain scanner. The collaboration endures following his appointment in 2019 as associate professor in the department of electrical and computer engineering at Université de Sherbrooke. His main research continues to focus on distributed real-time instrumentation and systems for nuclear medical imaging. He is currently involved in various roles in the IEEE Nuclear and Plasma Sciences Society.

Statement: I have been an NPSS member since my graduate student years and have strongly benefited from its role in the community through conferences, events, networking and training opportunities. More recently, as an early career researcher, I've gotten involved through roles such as CANPS committee member, TNS assistant editor, NSS topic convener and will return to the NPSS Real Time School once the COVID situation allows it. I want to further support our community through the RISC committee, where I expect many discussions will revolve around virtual/hybrid/on-site conference formats and how this will transform future conferences within NPSS and IEEE. My initial experience with CANPS has given me awareness of what to expect in RISC, and I sincerely believe I can bring ideas to the discussions on topics such as continuous improvement of our conferences and international education programs.

YOSHINOBU UNNO (M'16) is a physicist of the Institute of Particle and Nuclear Study at the KEK (High Energy Accelerator Research Organization) Laboratory in Japan. He received his Ph.D in Physics in 1975 from Tohoku University, Japan. After a postdoctoral position in the MarkIII experiment at SLAC, he joined KEK in 1981 as a staff member to work on the VENUS e+e- collider experiment at TRISTAN. Since 1991 he has been working on silicon tracking devices for highly radiation environments; in particular on the silicon strip tracker for SSC (1991-1993), and for the SCT of the ATLAS experiment (1993-present) where he served as module co-convener. He also worked as R&D co-convener for the ATLAS tracker upgrade for HL-LHC (2004-present) of both strips and pixels. He published a large number of papers on radiation-tolerant silicon tracking sensors in *IEEE Trans. on Nuclear Science* and other journals. He has been organizing several highly attended international conferences: 1) International "Hiroshima" Conference Series on Development and Application of Silicon Tracking Detectors, 2) "Trento" Workshop on Advanced Silicon Radiation Detectors (3D and p-type), 3) 2012 International Workshop of Semiconductor Pixel Detectors for Particles and Imaging, and 4) 2005 International Workshop on Vertex Detectors. Furthermore, he served as NSS co-chair at the IEEE Nuclear Science Symposium and Medical Imaging Conference in 2019. He also served on the Radiation Instrumentation Steering Committee for the term of 2018-2020.

Statement: I have been working on radiation-tolerant silicon tracking devices research and development for high-energy physics experiments for over 30 years, and have contributed to organizing silicon-related conferences as a main or a local organizing committee chair. In addition, I served as a co-chairperson at the 2019 NSS/MIC in Manchester and as a Radiation Instrumentation Steering Committee (RISC) member (2018-2020). All of these experiences have given me insight of the important role of RISC. Currently, we are in the midst of the deadly COVID-19 which forces us into new ways of working and interacting with people. If elected, I would work to enhance the RISC's function: to promote the development and applications of radiation detectors, to contribute to the long-range planning, and to discuss the post-COVID-19 strategy of conferences, with not only in person participation but also enhancing hybrid formats to ensure wide participation of all members of the IEEE community, especially of those in countries with budget restrictions. I would also work to strengthen the communication between experienced and young members of the RISC community and to attract young scientists into our field. I would also engage in identifying new initiatives and in promoting equality and diversity in the radiation instrumentation community.