

IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY ELECTION

Election of Members to the Administrative Committee

NUCLEAR MEDICAL AND IMAGING SCIENCES (Vote for One) For a Four-Year Term 1 January 2025 – 31 December 2028



ANDRE KYME (GSM'11-M'12) Dr. Andre Kyme is an imaging scientist and senior lecturer based in the School of Biomedical Engineering at the University of Sydney. His research focuses on developing advanced biomedical imaging systems and algorithms in PET, CT and MRI, with a particular focus on motion-corrected imaging. His work has addressed target applications in humans, plants, large animals, and small animals, the latter being recognised in the 2021 IEEE NPSS Early Achievement Award for contributions to awake animal imaging methods for PET. Dr Kyme has been an IEEE Member for almost 20 years and has previously served as an elected member of the Nuclear Medical and Imaging Sciences Council and on the organising committee of the NSS-MIC-RTSD for Sydney 2018.

Statement: Akin to a great long-term mentor, the IEEE medical imaging sciences community has afforded me wonderful opportunities and experience as an imaging scientist over nearly 20 years. Previously I have enjoyed serving this community as an elected member of the Nuclear Medical and Imaging Sciences Council and NSS-MIC-RTSD conference organising committees, both of which taught me important priorities around finances, awards, journal management, and the functioning and interaction of technical committees. Serving on the Nuclear and Plasma Sciences Society (NPSS) Administrative Committee (AdCom) will be a further opportunity to serve our scientific community in some specific directions: I would like to lend fresh energy and enthusiasm developing and implementing strategies aimed at broadening diversity, including Asia-Pacific involvement, and larger initiatives that will maximise bang for buck by impacting multiple technical committees and societies.



SULEMAN SURTI (S'98-AM'01-M'03-SM'08) is a Research Professor in the Department of Radiology at the University of Pennsylvania where he received his PhD in Physics in 2000. His research specialty is in quantitative PET imaging geared towards instrumentation for clinical and organ-specific systems. In a career spanning over 25 years, his research has focused on system development, optimization, and evaluation of several PET scanners developed at Penn as well as new commercial systems - ranging from small-animal PET through application specific PET (brain, breast, proton) to whole-body PET (Non-TOF, TOF, long axial field-of-view).

Suleman has previously served as the NMISC chair (2012-2013) and MIC co-chair (2016 and 2019). He has also served as the NPSS representative on the IEEE Transactions on Medical Imaging (TMI) Steering Committee (2014-2017) and as the Steering Committee Chair of the IEEE Transactions on Radiation and Plasma Medical Sciences (TRPMS) (2016-2022). He has also served as an Associate Editor for IEEE Transactions on Nuclear Science (TNS) (2015-2016) and IEEE TRPMS (2017-current), and was very recently (2022-2023) the chair of the joint oversight subcommittee (JOS) of RISC and NMISC that is responsible for the NSS/MIC site selection.

Statement: I have been participating in IEEE NSS/MIC for > 25 years and have been a member of IEEE throughout this period, progressing from a Student member to Senior member. Over the years this meeting has contributed vastly to my professional development as a scientist using advanced technology to improve nuclear medicine imaging. During my term as the NMISC chair I was also heavily involved in the formation of a new imaging journal to better represent the needs of the NMISTC community for publishing papers in a high impact journal that would be indexed within PubMed. If elected as the NMISTC representative to AdCom, I will work to further the goals of the NMISTC community by advocating for stronger student involvement in the annual meeting, improving accessibility to our meetings, and strengthening the publications.

PLASMA SCIENCE AND APPLICATIONS (Vote for One) For a Four-Year Term 1 January 2025 – 31 December 2028



BRENDAN B. GODFREY (SM'83-F'00-LF'15) Retired from a career of research management in government and industry, Brendan Godfrey is a full-time volunteer, principally for IEEE but also for Lawrence Berkeley Laboratory and Ars Lyrica Houston. Previously, he was AF Office of Scientific Research director, Brooks AFB deputy director, AF Research Laboratory director of plans, Armstrong Laboratory director, Phillips Laboratory advanced weapons director, Weapons Laboratory chief scientist, Mission Research Corporation vice-president, Los Alamos National Laboratory group leader, and Weapons Laboratory staff scientist. He has served on numerous professional panels, including the National Academies' Air Force Studies Board, Texas Governor's Scientific Advisory Committee, San

Antonio Brooks Development Board, Los Alamos National Laboratory and Sandia National Laboratory advisory committees, and University of New Mexico and University of Texas San Antonio advisory committees. Known for his contributions to computational plasma theory and applications, he has authored over 200 publications and reports. Dr. Godfrey received his B.S. from the University of Minnesota and Ph.D. from Princeton University. He is a fellow of the IEEE and of the American Physical Society.

Dr. Godfrey has been an active member of the IEEE since 1976 and has served on the Plasma Science and Applications Committee (PSAD) Executive Committee (ExCom) almost continuously from 1994 to 2020. While Chairperson, he instituted organizational changes to broaden the range of candidates seeking election, expanded member participation in ExCom activities, and served as an ex officio member of the Nuclear and Plasma Sciences Society (NPSS) Administrative Committee (AdCom). Subsequently, he became an appointed member of AdCom and twice an elected member. Since 2011, he has been a member of the IEEE-USA Research and Development Policy Committee, serving as Vice-Chair and Chair. He also organized and served as co-chair of the Artificial Intelligence Policy Committee. Dr. Godfrey served on the IEEE-USA Board of Directors for six years, first as Vice-President for Government Relations, then as Vice-President for Communications and Public Visibility, and finally as Vice-President for Career and Member Services. Currently, he is on the IEEE Global Public Policy Committee (GPC) as vice-chair, the IEEE-USA Nominations and Appointments Committee, and the IEEE Committee on the Future of Education. He has given numerous talks about IEEE activities at NPSS conferences and management meetings and at Region and Section meetings and has represented IEEE-USA during Congressional Visits Day on several occasions. Over the years he has helped organize several plasma conferences.

Statement: I have benefitted greatly from my many years in the IEEE and look upon NPSS AdCom membership as a further opportunity to give back to the NPSS community. Being a PSAC ExCom member for many years, including as Chair and twice as Vice-Chair, has given me a good understanding of its needs. Subsequently serving as a member of NPSS AdCom provided me with valuable knowledge of its roles, responsibilities, and internal operations. If elected again to the NPSS AdCom, I will work to represent the PSAC community while strengthening NPSS as a whole. Expanding membership, with emphasis on younger professionals, is important to the future of PSAC and NPSS, as is developing a pipeline of future leaders. I also will seek opportunities for collaboration between NPSS and GPPC on sustainability and other public policy topics. Especially in this time of constrained budgets, it is important to ensure sustained research support and healthy IEEE conferences.



MARK JOHNSTON (AM'08-M'13) is a Principal Member of Technical Staff at Sandia National Laboratories in Albuquerque, NM. He received his Bachelor of Science in Chemistry, summa cum laude, from Oakland University (1998) following six years in the US Navy as a nuclear power plant operator (1990-1996). He attended the University of Michigan, where he obtained his Master's (2001) and PhD degrees (2004) in Nuclear Engineering and Radiological Sciences under the supervision of Dr. Ronald Gilgenbach. His research at Sandia involves plasma diagnostics and spectroscopy of low temperature plasmas in high energy density, pulsed-power environments. He was a principal investigator on the RITS-6 IVA accelerator, where he conducted research on electron beam diodes used as x-ray radiographic sources. He was a principal investigator on the Z- Machine, exploring plasma generation in the MITL power flow regions in support of the Next Generation Pulsed Power Facility (NGPPF), and now leads the design effort for the new Bremsstrahlung x-ray diode for the Combined Radiation Environments for Survivability Testing (CREST) project. He is a Research Professor in the Electrical and Computer Engineering Department at the University of New Mexico, where he teaches courses in low temperature plasmas, plasma diagnostics, and spectroscopy. He has authored or coauthored numerous papers and reports ranging from z-pinch wire physics to particle beam diodes to MITL plasma phenomena. He is a member of IEEE, NPSS, APS, ACS, and SPIE.

Statement: IEEE and NPSS have been an important part of my personal and professional career since attending my first ICOPS meeting as a graduate student in 2000. Over the years, I have contributed to many conferences and chaired multiple sessions. In 2021, I was responsible for the Minicourse on Plasma Spectroscopy, and in 2022, I was the Student Travel Grants and Awards chair. I was elected to the PSAC Executive Committee in 2020 and served a three-year term from 2021-2023, where I was chair of the minicourse and membership subcommittees. While working at the IEEE membership booth at the ICOPS in Santa Fe, I was fortunate enough to engage with Peter Clout who discussed his work at the higher levels of NPSS, which helped me to better understand the organization and the larger mission of the society, this was followed a couple of months later by another discussion at the SOFE meeting in Oxford, UK, where Peter was attending as well. In an effort to give back to the community that has helped me in so many ways, I am honored to be considered for a position on the NPSS Administrative Committee (AdCom) representing PSAC. I think my 20+ years of experience in research at a national laboratory as well as my interest in student involvement and the next generation of scientists, as exemplified through my participation in both the minicourses and membership activities, as well as teaching at the University of New Mexico, provide me with the necessary background to make informed decisions on issues important to NPSS and its membership. We are at a crucial juncture in science research and STEM education, and the next few years are vital to ensure that we have an engaged and informed professional workforce capable of advancing science and promoting scientific endeavors in the plasma fields.



LOUISE WILLINGALE (AM'15-M'21-SM'23) Dr. Louise Willingale is an Associate Professor of Electrical and Computer Engineering at the University of Michigan and is the Associate Director for the NSF ZEUS facility at the Gérard Mourou Center for Ultrafast Optical Science. Prof. Willingale's research is on experimental high-intensity laser-plasma interactions, with a focus on relativistic electron heating, ion acceleration, proton radiography, magnetic-field generation, and reconnection. She received a MSci in Physics (2003) and a PhD in Plasma Physics (2007) from Imperial College London. In 2008, she moved to the University of Michigan, first as a Postdoctoral Researcher, then as an Assistant Research Scientist, before becoming an Assistant Professor in 2014. In 2018, she received a Faculty Early Career Development (CAREER) Award from the NSF to study laser-driven magnetic reconnection and was elected Fellow of the American Physical Society (APS) in 2022 and is a Kavli Fellow. In 2024 she joined the editorial board of the Journal of Plasma Physics as an Associate Editor.

Statement: I would bring an academic perspective as someone whose research sits between a variety of plasma physics topics, from advanced accelerator concepts to high-energy density physics, laboratory and extreme astrophysics, and high-field science. I joined IEEE as a member in 2015, have been a senior member since 2023 and I am currently serving as an elected member of PSAC from 2022 through 2024. I have contributed presentations to ICOPS meetings and worked on the technical committee for ICOPS. If I am elected to be the PSAC representative to AdCom, I would look for ways to promote plasma science and applications to the neighboring Nuclear & Plasma Science communities to foster collaboration. I would work to create clear communication about initiatives that may benefit PSAC members. Promoting opportunities for early career folks – such as training, networking and presentation opportunities, professional recognition, and mentoring – is especially important to me for attracting and retaining the best and brightest to the plasma science fields from a diverse group.

**TRANSNATIONAL (Vote for One)
For a Four-Year Term 1 January 2025 – 31 December 2028**



TRANG HOANG (M'21) is a faculty member at the University of Science, which is part of Vietnam National University Ho Chi Minh City (VNU-HCM). She earned her doctoral degree in Experimental High Energy Physics from Florida State University, where she conducted research at the D0 collaboration at Fermi National Accelerator Laboratory.

Trang's research interests include Monte Carlo simulation, data analysis, image processing, artificial neural networks, and the development of interactive virtual laboratories. In addition to her research pursuits, she has been designing and delivering medical physics education programs at the University of Science, VNU-HCM.

Throughout her career, Trang has demonstrated a strong commitment to fostering international collaboration. She has played an active role in facilitating successful research and educational partnerships between the University of Science and institutions in Japan, Taiwan, Canada, and Australia. She also helps increase the presence and awareness of IEEE-NPSS in Vietnam through collaborating to organize scientific events as well as carrying out research projects.

Since 2019, Trang has been actively involved in organizing and lecturing at IEEE-NPSS international schools focused on nuclear instrumentation and medical physics. Beyond her academic and research work, she is also dedicated to promoting the participation of women in engineering and science, and has attended and spoken at various Women in Engineering events.

Statement: I present myself as candidate for the position of chair of the Transnational Committee (TNC). I have been a member of TNC since 2020 and I believe I have the necessary qualifications and vision to effectively take on this important role.

Throughout my career, I have greatly valued the power of international cooperation and the priceless insights that can arise from diverse perspectives. During my doctoral research at Florida State University and subsequent at the D0 Collaboration at the Fermi National Accelerator Laboratory, I had wonderful experiences with the richness and uniqueness of ideas, as well as the efficacy that results from the collaboration of scientists from many different countries and cultures. Currently, as a faculty member at the University of Science, VNU-HCM, I have further strengthened my ability to build meaningful international partnerships.

Additionally, I have been involved in organizing IEEE-NPSS schools on nuclear instrumentation and medical physics in Quy Nhon (2019), Kuala Lumpur (2019), Jakarta (2020, virtual), Vietnam (2021, virtual), Quy Nhon (2022), and the 24th IEEE Real-Time Conference in Quy Nhon (2024). These events have reinforced my capacity to facilitate meaningful cross-border dialogues and cooperation. I have been the local Project Leader for the NuVirLab project which was financed as an NPSS Initiative.

This experience, combined with my commitment to promoting women's participation in engineering and science, positions me well to lead the Transnational Committee that prioritizes inclusivity and global collaboration. As a scientist, I am deeply passionate about increasing connectivity and support for smaller research groups in order to contribute to the strategic goals of IEEE-NPSS.



MAXIM TITOV (AM'03-M'04-SM'11) was born on May 6, 1973 in Kyiv, Ukraine. He received his PhD in 2001, having carried out his research at DESY, Hamburg, Germany and completed his Habilitation in 2013 from University Pierre and Marie Curie (Paris VI), France. Today, he is a Director of Research at CEA Saclay, France. A nuclear and particle physics researcher for his more than 30-years carrier, Dr. Titov worked in both the development of advanced detector concepts and physics data analysis at collider experiments, inevitably within large international collaborations: HERA-B Experiment at DESY, Germany; D0 Experiment at FERMILAB, USA; ATLAS, CMS Experiments as well as RD51 and DRD1 Collaborations at CERN, Switzerland; and International Linear Collider Project (ILC) in Japan.

An important component of Dr. Titov experience includes management of large-scale international scientific collaborations and involvement into science-policy matters. He was the founding member and the Spokesperson (2007-2015, 2023) of the CERN-RD51 collaboration ("Development of Micro-Pattern Gaseous Detector Technologies (MPGD)". He was recently elected as the Spokesperson of the CERN-DRD1 ("Development of Gaseous Detectors Technologies") for the term 2024-2025. Since last year, Dr. Titov also serves as the Co-Chair of the Accelerator Panel on "Sustainability Assessment of Future Accelerators", being appointed by the European Laboratory Directors Group.

Statement: Maxim Titov served for 3-terms as an elected *RISC* member (2007-2009, 2012-2014, 2020-2022) and *TNC* Vice-Chair (2005-2012), participating in several ADCOM meetings. He was *NSS Program Co-Chair* in 2012 (Anaheim), 2008 (Dresden) and 2003 (Portland) and served as a *General Chair of the 2016 IEEE NSS/MIC/RTSD Symposium in Strasbourg, France*, which attracted 2500 participants. From my first participation in the NSS/MIC meeting 25 years ago, IEEE NPSS has played a major role in my research and career development. It will be my honor and privilege to serve as a Transnational Committee Chair (TNC), represent global NPSS community towards AdCom, and ensure strong communication between the two bodies. I will exert my best efforts to strengthen the global importance of the IEEE and NPSS with a special attention towards global events, in particular in Asia and Europe. I will promote interdisciplinary communications between different NPSS Communities, not limited to NSS and MIC, strongly support Society's international outreach activities and professional development of young scientists and encourage them more actively contribute into the NPSS life. I believe that my experience in international collaborations, organizational skills, and interest to multidisciplinary research could be beneficial to the NPSS community, should I be elected as the TNC Chair.

**IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY ELECTION
FUSION TECHNOLOGY STANDING COMMITTEE ELECTION
For the Four-Year Term 1 January 2025 – 31 December 2028
(VOTE FOR NO MORE THAN TWO)**

EVA BELONOHY (M'24) is the Training and Education Manager of the EUROfusion Consortium, chair of the EUROfusion Operations Network and Operations Subproject Leader of the Preparation for ITER Operations EUROfusion work package. She is affiliated with UK Atomic Energy Authority (UKAEA) and the Institute of Plasma Physics of the Czech Academy of Sciences seconded to the EUROfusion Consortium.

Eva has a PhD in Physics from Eotvos University (Budapest, Hungary) and an MBA (Dean's List of Excellence, top 10%, selected as "Best & Brightest") from the Imperial College Business School (London, UK). She has 15- years' experience in tokamak operation with a full license to operate ASDEX Upgrade, MAST and JET as a physics pilot. During her 8-year in the European JET Operations Group, she supported the operational preparations of the JET campaigns, training and management of physics pilots and led the technical rehearsals for tritium operation. She was the Chair of the UKAEA Strategic Engagement Committee reporting directly to the Executive Committee of UKAEA's CEO and directors. From 2019-2022 she led the EUROfusion JT-60SA integrated commissioning team and was later the Operations Subproject Leader for the Exploitation of JT-60SA. In 2021 she became the Operations Subproject Leader for the Preparation for ITER Operations EUROfusion work package, where she established the EUROfusion Operations Network and its communities of practice on ECRH and NBI. These communities allow the operational teams across EUROfusion, F4E, ITER and Japan to share know-how, experience and best practices on a regular basis, organize joint European operator trainings, facilitate collaboration and support the commissioning of plant systems. She is a member of the ITER Operations Network since 2017, while she continues to Chair the EUROfusion Operations Network expanding their activities. She is the editor of the PPCF Special Issue on Operations capturing the JET DT experience and is in the early stages of organizing the first textbook on Tokamak Operations in collaboration with IAEA.

Since 2023, Eva is the Training and Education Manager at the EUROfusion Consortium responsible for supporting Master and PhD students across 100 universities, the EUROfusion Researcher and Engineering Grants and the management of the EUROfusion Engineering Training Programme. She has authored the European Education Programmes Overview, the EUROfusion Knowledge Management Strategy and the EUROfusion Human Resource Survey and Workforce Development Plan. She actively supports diversity, inclusion, and outreach efforts in early career stages working with FUSEnet. She is leading the setup of the Fusion Education and Learning Hub providing recorded and live university courses accessible across Europe, as well as the European Fusion Diversity Network, offering a community of practice for professionals working on diversity initiatives in Europe. Since 2020, Eva is the European scientific secretary and organizer of the JT-60SA International Fusion School merging engineering, physics, diagnostic and operational aspects of annually changing school themes. As a member of the EIROforum working group on Training and Career Development, she facilitates joint activities with the 8 largest research centers in Europe including CERN, ESA and ESO.

Statement: The rise of over 45 private fusion companies with increasing investment and interest in nuclear fusion drives the need to increase educational opportunities to train more students, early career engineers and technical staff for both the private and public sector. Offering efficient onboarding and reskilling opportunities is equally important to facilitate mobility between various technology sectors. IEEE can play a vital role in raising awareness and attractiveness of the fusion sector for various diverse career paths, as well as contribute to engineering education and training activities through strong communities providing know-how and experience. These communities enable capturing and transferring tacit knowledge of engineers and technicians essential to retain and transfer the know-how, lessons learned and best practices from the design, construction, commissioning and operation of fusion devices bridging long timescales of large-scale projects and geographies. I would be honored to support the Fusion Technology Committee of the IEEE through strategizing and implementation of various activities including training, outreach, event organization, and supporting communities sharing best practices.

JAMES (JAKE) BLANCHARD (M'24) is a Professor Emeritus at the University of Wisconsin-Madison. Professor Blanchard has been involved with fusion technology research since he was an undergraduate student at UCLA in the early 1980's. He has contributed to a variety of large national studies, including INTOR, ITER, ARIES, HAPL, and FNSF, encompassing topics related to both magnetic and inertial fusion. The bulk of his research has focused on the structural design of plasma-facing components and transient analysis of the thermo-structural and electromagnetic effects of ELMS and disruptions in tokamaks. He has also carried out a variety of studies related to the use of radioisotopes to produce power sources for MEMS devices. Professor Blanchard earned his PhD in Nuclear Engineering from UCLA in 1988, published over 100 peer-reviewed articles, and served on a variety of fusion-related committees for the Department of Energy and for the American Nuclear Society (ANS). He is a fellow of the ANS.

Statement: Despite the relatively slow progress of the ITER construction, this is an exciting time for fusion because we've seen recent research results demonstrating significant progress in inertial and magnetic fusion device performance. More importantly, the recent infusion of private funds into fusion has led to numerous startup companies across the US and Europe. These startups have much more aggressive timelines than ITER and thus have great potential for attracting promising young engineers into the field.

However, recent federal funding of fusion technology in the United States has focused on national laboratories and I fear that the development of young scientists interested in this field will suffer, just as there is a growing commercial need for these skills. Hence, we are presented with a wonderful opportunity for a group such as IEEE/NPSS to influence decision makers and impact lives and I would be proud to play a role in that effort.

KINGA GAL (M'24) is senior research fellow at Technical University Munich seconded to EUROfusion Consortium as scientific advisor to the Programme Manager.

Kinga Gal has been involved with fusion research since she was a PhD student at Wigner Research Center for Physics in Budapest, Hungary. She has been studying laser-plasma interactions, the bases of ICF. Her results were honored by a Centre of Excellence scholarship. She started to work on MCF as a post doc and later as a senior scientist. Her interest was fueling and ELM mitigation by pellets as well as disruption avoidance by pellet injection. She has not only been involved in scientific studies, but she has given courses to undergraduate students.

Within the framework of a scholarship of the Max-Planck-Society she has studied massive gas injection for disruption mitigation in 2012-2013. As senior nuclear fusion expert with more than 20 years of experience and as international project/science manager, she is presently supporting the programme manager of the EUROfusion Consortium as advisor.

Statement: The need for sustainable and equitable energy sources has shed light on the need for quick development fusion technologies all over the globe, resulting in an influx of funds to fusion technologies both from the private and public sector. This resulted in a gap between the number of professionals needed and the number of existing experts, a gap which has increased in the last 5-7 years. Recognizing the importance of the training and education for the fusion work force, I consolidated and extended the education in training program of EUROfusion (2019, since 2020 a dedicated person in coordinating these activities). Later, in March 2023 I set up a worldwide mentoring program withing the framework of Women in Fusion including 30 mentor-mentee pairs, aiming to attract and encourage young professionals to pursue carrier in fusion industry. In my present position I have been also developing strategic partnerships with different institutions including the private sector. I am also the vice chair of the Technical Programme Committee of SOFE'25. I would be happy to use those experiences and my communication and strategic skills to the support the efforts of the FTC.

JOSE MANUEL PERLADO (M'24) is Emeritus Professor of Nuclear Physics of the *Universidad Politécnica de Madrid*, Spain (UPM). Prof. Perlado was Director of the "*Instituto Fusión Nuclear - Guillermo Velarde, IFN-GV*" in UPM since 2004 to 2020 and President since 2020. He is also now Consultant Leader for Materials and Reactor of the private company *Focused Energy* (Germany-USA).

Prof. Perlado started his career in 1973 in the *Junta de Energía Nuclear* ("Nuclear Research Center") of Spain as a scientist working in target physics code development for inertial confinement fusion. He became a Professor at UPM in 1982 and co-founded the IFN-GV Research Institute. While maintaining his target physics research, he launched since 1983 the Program of Fusion Technology for Inertial Fusion Energy in IFN-GV opening work in neutronics, materials, fluid-dynamics and thermo-mechanics. He started to work from 1988 in Multiscale Modeling of Materials (MMM) under irradiation producing several codes in molecular dynamics and kinetic Monte Carlo and introducing MMM in Spanish science promoting some of the first projects in the European Fusion Development Agency (EFDA). Since the 90's he has served continuously as representative-advisor of Spain in the Program Committee for Nuclear Fusion of EURATOM and today is Spanish official advisor for fission and fusion. He led neutronics in the HIBALL-II study (1982), and KOYO/KOYO-F (1986 and 1994), led the Technology and Materials Area in the HiPER European Project for Laser Fusion (2004-2012), and served as advisor to the LIFE project in LLNL. He was Guest scientist at LLNL for many years in long and short stays; and Guest Scientist at CERN from 1994 to 1997 as a member of a Transmutation Wastes project by using Spallation Reactions. He co-launched the project EURAC (from EURATOM) for the design of a neutron materials-irradiation facility for fusion by using spallation reactions.

Prof. Perlado has been General Co-chair (2006) and Scientific Secretary (1986, 1996) of ECLIM conferences and presently Member of the permanent Technical Committee, Chair of the first IAEA TCM on *Physics and Technology of Inertial Fusion Energy Targets and Chambers*, and Co-Chair of the IAEA RCM on *Nuclear Data, Materials and Power Plants for Inertial Fusion Energy* including Advisor of the IAEA Book "*Energy from Inertial Fusion*". He was a member of the Technical Advisory Committee of the European Spallation Source (ESS) since 2014-2018, Member of the Technical Committee in the Series of Conferences of Inertial Fusion Science and Applications since its first edition, Co-Chair of *Conference Trends in Nanotechnology (TNT)* in 2012 and Co-Chair of the *International Symposium on Proliferation and Anti-Terrorism*, addressing the challenges of WMD proliferation and terrorism (2011).

Statement: The world fusion program has experienced a tremendous impulse and a completely new direction since the positive experiments in LLNL and worldwide, and the emergence of key private-public partnerships. Today we have serious companies that plan to use innovations in engineering and existing technology available in the very near future to propose power plants of nuclear fusion. Public programs worldwide are launching in some cases billion-dollar class programs for industry linked to national laboratories and universities. One of the very serious problems already detected since some years and now very urgent is the

incorporation of young engineering to this effort. I know since many years the role of IEEE/NPSS and attended its key conference and interaction forum (SOFE has been a reference for fusion engineering). I believe FTC is uniquely positioned to exploit this opportunity and help strengthen the pipeline of young engineers entering the field as well as provide a venue for emerging industry players to connect with customers, suppliers, funding opportunities and manpower; exactly what we are requesting now from private industry. The Fusion Technology Committee I would like to serve is exactly in that line and has tried to internationally advance information and interaction in engineering through different activities in the conferences. I would be happy, with my double vision actually to be President of a Research Institute and Consultant lead of Reactors for Inertial Fusion in a company, to contribute to this effort through the FTC.

IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY ELECTION
NUCLEAR MEDICAL AND IMAGING SCIENCES COUNCIL ELECTION
For a Three-Year Term 1 January 2025 – 31 December 2027
(VOTE FOR NO MORE THAN FIVE)

MERCY AKERELE (GSM'16-M'19) is a Medical Physics Resident in the department of Radiology at the University of Florida, Gainesville. She received her Ph.D. in Biomedical Imaging Science from the University of Leeds, United Kingdom. She later joined Weill Cornell Medical College, New York, USA for her postdoctoral research. Dr. Akerele's research involves molecular imaging and kinetic modelling, with an emphasis on improving diagnosis and quantification in positron emission tomography (PET). Dr. Akerele has carried out extensive research on the spill-in effect in PET, and developed robust qualitative and quantitative metrics for mitigating this spill-in effect in different disease models. She has also carried out Monte Carlo simulation of miniature wristPET detectors and applied these models to the non-invasive measurement of the arterial input function (AIF) and kinetic modelling. She is also involved in diverse PET imaging of various neurological and inflammatory disorders. She is a member of the IEEE, NPSS and open-source software for tomographic image reconstruction (STIR) which provides a multi-platform framework for data manipulations in tomographic imaging. Dr. Akerele is also a member of various working groups for the American Association of Physicists in Medicine (AAPM), American College of Radiology (ACR) and American Association of Women in Radiology (AAWR). She is currently awarded an ACR fellowship with the goal of enhancing personalized treatment optimization for various diagnostic examinations. Dr. Akerele has authored and co-authored about 17 peer-reviewed articles and more than 20 presentations at local, national and international meetings.

Statement: My involvement in Nuclear Medicine dates back to the year 2015 when I started my PhD research at the University of Leeds. Since then, I have greatly contributed to the field of nuclear medicine by my involvement in different communities (IEEE, NPSS, AAPM, SNMMI, ACR), collaborations with scientists and clinicians across the globe, conference presentations and numerous research outputs. I joined the IEEE Nuclear Science and Molecular Imaging community in 2016, and I have been consistently presenting my work at the IEEE Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC). I have had opportunities to serve at different capacities across different scientific and professional communities, and this has developed my intellectual capabilities, relationship skills and diversity. I believe these skills would be highly beneficial during my involvement with the NMISC for the growth and development of the nuclear medicine world, and for enhancing inclusion and diversity in the IEEE community. If elected, I will prioritize activities that enhance growth, diversity and inclusion, as well as incorporation of the upcoming scientists in the field. I will also contribute greatly towards developing quality educational activities during and outside the annual IEEE NSS/MIC meetings.

SATYANARAYANA BHEESETTE (M'09-SM'14) Dr. Bheesette received his Bachelors in Electronics and Communication Engineering from J.N.T. University, Hyderabad and Ph.D. in Physics from IIT Bombay. He was with the Department of High Energy Physics, Tata Institute of Fundamental Research, Mumbai since 1983 – and has superannuated recently as Scientific Officer (H) and the Coordinator of India-based Neutrino Observatory Project. He is a Visiting Professor at the Applied Science Department of the American College, Madurai and was an AICTE-INAE Distinguished Visiting Professor at the Symbiosis Institute of Technology, Pune. His areas of interest include 'Detectors and Instrumentation for high energy and nuclear physics experiments'. He was honoured with Homi Bhabha Award in Science Education. Dr. Bheesette is a Senior Member of the IEEE and is currently the Immediate Past Chair of its Bombay Section. He has previously served as the Secretary, Chair of Signal Processing Society as well as the Chair of Technical and Professional Activities of the Section. He has also served as the Vice Chair (Technical Activities) of the IEEE India Council. He won IEEE Bombay Section's Outstanding Volunteer Award for 2014 and IEEE MGA Achievement Award for 2016. He received IEEE's Certificate of Recognition for outstanding achievement in member recruitment for the Bombay Section and appreciation Certificate from IEEE MGA and Technical Activities "for Notable Services and Contributions towards the advancement of IEEE and the Engineering Professions" as the Chair, Signal Processing Society, Bombay Section.

Statement: In India, NPSS membership is entirely limited to government research laboratories. I started making efforts to petition an NPSS chapter under the Bombay Section and therefore started motivating members to take NPSS membership. I have extensive experience in the fields of detectors and instrumentation for nuclear and high energy physics experiments for over 40 years in one of the most well-known fundamental research Institutes in the world. If elected, I would like to work for increasing NPSS membership worldwide and in particular in the region. Nuclear and high energy physics sensors and instrumentation is finding extensive applications in medical, industrial and security areas. I will design educational programmes on this emerging field for the benefit of young students and postdocs.

JAVIER CARAVACA (M'22) is an Associate Researcher at the Department of Radiology and Biomedical Imaging at the University of California, San Francisco. He received his Ph.D. in Physics from the Universidad Autónoma de Barcelona (Spain). Soon after, he joined the University of California Berkeley as a postdoctoral researcher, where he developed instrumentation for optical detectors, data analysis techniques, and physics analyses focused on experimental neutrino physics. After his postdoctoral training, he joined his current institution where he leads research on instrumentation and quantitative techniques for nuclear imaging and radionuclide therapy. His main interest is in the development of novel technologies for quantitative imaging of alpha radionuclide therapies,

including Compton imaging, collimatorless detectors, and non-standard single photon emission computed tomography (SPECT). He is also a pioneer in a technology to improve positron emission tomography (PET) by separation of Cherenkov and scintillation in scintillator detectors. He has authored more than 50 peer-reviewed articles (IEEE TMI/TRPMS), including six first-author publications with more than 50 citations, contributed with 15 presentations in international conferences, he has imparted 14 seminars as invited speaker, and has been invited to review grant proposals (USA National Institute of Health), peer-reviewed papers (IEEE TMI/TRPMS, Nature Scientific Reports, etc.), and conference abstracts (IEEE MIC/NSS, WMIC). He is also an IEEE and NPSS Member.

Statement: I have more than 14 years of experience in experimental nuclear and particle physics, including more than 4 years as a junior PI in imaging and dosimetry in nuclear medicine. During this time, I have established an independent research group with a team of two postdocs and several students funded by externally awarded grants, and with peer-review publications in high impact journals. Most importantly, I have been committed to serve the scientific community by organizing local conferences and events, volunteering in outreach events and local schools, and serving IEEE/NPSS by consistently reviewing abstracts for IEEE Nuclear Science Symposium and Medical Imaging Conference and as a session chair. I have exercised my leadership as group convener in international collaborations (working groups in Electronic Calibrations, Solar Neutrinos and Atmospheric Neutrinos in the SNO+ experiment), and as co-chair of an open-source simulation package for particle physics (RAT-PAC). As a member of the NMISC, if elected, I will advocate for connection, collaboration, inclusion, and diversity. I would like to bring the experience acquired while serving the community to promote a strong culture of cross-collaboration and to foster an enriching NPSS for young scientists. In particular, I also believe that my previous experience would be valuable to help overseeing the Medical Imaging Conference.

JUNWEI DU (GSM'09-M'11-SM'15) is a Professional Researcher in the Department of Biomedical Engineering at the University of California, Davis (UC Davis). He earned his B.S. in Applied Physics in June 2005 and his Ph.D. in Electronic Science and Technology in June 2010, both from the University of Science and Technology of China (USTC). After completing a brief postdoctoral period at USTC, he joined Dr. Simon Cherry's group at UC Davis in March 2011. Dr. Du's primary research focuses on developing high-resolution and high-sensitivity Positron Emission Tomography (PET) systems for biomedical imaging. His work encompasses developing PET systems, detectors, and readout electronics, among other areas. Dr. Du has been involved in the development of several PET scanners, including those designed for small-animal and human-brain imaging. Presently, he leads a team to develop two total-body small animal PET scanners and is part of a collaborative team developing the neuroEXPLORER (a next-generation human brain PET system). Currently, he leads a team developing two total-body small animal PET scanners and is involved in a collaborative effort to create the neuroEXPLORER, a next-generation human brain PET system. Dr. Du has authored and co-authored more than 50 peer-reviewed publications and over 80 presentations, predominantly at IEEE Nuclear Science Symposium and Medical Imaging Conference (NSS-MIC). He is also a Senior Member of IEEE.

Statement: I began my career in biomedical imaging in 2005. Since 2009, I have contributed to the IEEE Nuclear Science and Molecular Imaging community by consistently publishing my research in the IEEE Transactions on Nuclear Medicine and IEEE Transactions on Plasma Science and Medical Imaging, and review papers for both journals. Additionally, I have presented 60+ presentations at the IEEE NSS-MIC and reviewed 100+ abstracts for the conference. If elected, my primary goals will be to create more opportunities for young scientists and to attract more young talent to continue their careers in our field.

ANTONIO J. GONZALEZ (M'19) I am a researcher at the Spanish National Research Council (CSIC), working on the development of molecular imaging systems. I have a permanent position since March 2017 at the CSIC, working at the Institute for Instrumentation in Molecular Imaging (i3M). Antonio J. González obtained in 2005 the Physics Doctorate from the University of Heidelberg in Germany with the qualification of Magna Cum Laude. During my postdoctoral stage, I have developed dedicated PET systems and have scientifically coordinated two EU projects. Another very important development in my career is the small animal PET system based on monolithic scintillators, so-called Albira, commercialized by Bruker with nearly 50 installations worldwide. After the permanent position at CSIC, I have been PI in Spanish national grants building a two panels PET for heart examinations under stress, and later a dedicated breast PET based on a single LYSO tube. I have been co-Investigator of an R21 from NIH with Dr. R. Miyaoka from Uni. Washington. I am currently co-PI of two NIH R01, one with Uni. Virginia (2020-2025) and another with the Weill Medical Center at Cornell in New York together with Dr. S. Nehmeh (2023-2028). I first author of about 20 peer-reviewed publications and co-author of 85 more, several as second author due the importance contribution and PhD work supervising, with an h-index of 26. I have successfully directed 10 PhD theses.

Statement: I have participated annually in the NSS-MIC Conference since about 2007. I am session convener since several years ago, and an active member of the conference program committee since 2010, primarily focusing on the MIC but also with great interest on the NSS. I am Reviewer of the IEEE TNS and TRPMS journals, and Associate Editor of this last TRPMS. I have actively worked in international projects, and have a wide scope knowledge of research groups, as well as industrial partners. Given the active participation and strong commitment that I have demonstrated over the almost 16 years at MIC conferences (both as presenting scientist and committee member), I believe that I can make a unique and significant contribution to the Nuclear Medical and Imaging Sciences Council (NMISC). I have to add, I have already been an NMISC member in the period 2019-2022, involved in some relevant topics. I am positive saying that there is a differentiation of my work with others since I have always worked in the design and translation of medical imaging instrumentation, that could benefit the NMISC purposes. If elected to the NMISC, I will try to engage

scientists, I already do with all my students and colleagues, of all ages and sexes to participate in IEEE medical imaging activities. I will try to promote further scientific and educational activities, and to help select dynamic plenary speakers. I would be happy to help manage and promote Nuclear Medical and Imaging Sciences activities as a NMISC council member.

ANDREA GONZÁLEZ-MONTORO (M'20) is a Postdoctoral Research Fellow (Ramón y Cajal position) at the Institute for Instrumentation in Molecular Imaging (i3M) in Valencia, Spain. During her 10-year academic career, she has been mostly working on the study and improvement of the instrumentation associated to Positron Emission Tomography (PET) detector blocks. She has already contributed to various well recognized items in the imaging research area, but especially in PET detector development and their assembling into fully-operating systems. From 2014 to February 2019, she was part of the PET working team at i3M where she was involved in building PET prototypes under the supervision of Dr. Antonio Gonzalez. Some of the developed devices were successfully transferred to the industry. During her PhD studies, her research focused on the development and implementation of the detector blocks constituting two PET systems funded by EU grants, the brain PET insert called MINDView and a stand-alone brain PET system called CareMiBrain. She obtained her PhD diploma in December 2018 with Cum Laude and international distinction. In March 2019, she joined the Molecular Imaging Program at Stanford University as a Postdoctoral Research Fellow under the supervision of Dr. Craig Levin. At Stanford, her research focused on the design and implementation of TOF-PET detector blocks and, on the investigation of exploiting the Cherenkov radiation to enhance the temporal resolution of PET scanners based on BGO crystals. In April 2022, she re-joined the i3M group. Dr. Gonzalez-Montoro authored and co-authored more than 30 peer-reviewed articles and more than 50 presentations. She is a IEEE 5-yr member.

Statement: I started working in the field of molecular imaging and, in particular, of Positron Emission Tomography (PET) in 2014, when I joined the i3M group as a Physics undergrad student. During these years, I feel confident I have been an active member of the community and have contributed to the field both with my research and personal engagement.

From the scientific point of view, I have been working on the design and development of PET detector able to provided 3D photon impact positioning and more recently, also time-of-flight (TOF) capabilities. Some of my designs made it to the industry in the form of full-size scanners. As a result of my research, in September 2019, while being a postdoctoral fellow at Stanford University, I got a scholarship with founding for the development of my research so, I was partially funded by the European Social Fund and by Stanford. This scholarship allowed me to co-work with a European group (the i3M) thus, I could combine my doctoral and postdoctoral knowledge; one year after that, I was the recipient of the 2020 IEEE Ronald J. Jaszczak Graduate Award; and then, in 2021 I got an award of the Spanish Royal Academy of Sciences (aRac) and Mastercard, for the young female scientific talent in Spain (category: translation of research to industry).

From the educational/personal point of view, I am deeply involved with educational activities since I truly believe these events will extend the impact of our research while motivating young students by facilitating their access to our community. I am co-founder and president of the association Women of Science together with the Foundation Spanish Royal Academy of Science. Though the association, we mentor young female students and support the scientific career of women in Spain. Also, I have already co-directed a PhD thesis (Dr. Marta Freire, defended July 2023) and I am currently co-directing two other PhD theses in our group and 2 master students. Moreover, I have been (and still am) mentor of undergrad students both at Stanford and i3M.

Moreover, I have participated to the IEEE Nuclear Science and Molecular Imaging conferences by presenting my work, reviewing abstracts and being Session Chair. In 2019 I was elected an NMISC member which I really enjoyed. Moreover, this last year I joined the IEEE Educom community and I am involved in the organization of the 2024 schools that are taking place in Rabat and Indonesia. I will attend both schools as organizer and lecturer for the PET imaging and WIE sessions. I very much acknowledge the effort of all the NMISC members which I found of extremely relevance and interest for the community.

I am highly motivated for the upcoming years and I would like to apply again and renew my effort. If elected, I will do my best for boosting our impact and will actively engage in the activities as volunteer and organizer.

AKRAM HAMATO (M'14) is a Senior Researcher in the Imaging Physics Group at the National Institutes for Quantum Science and Technology (QST) in Japan, formerly known as the National Institute of Radiological Sciences (NIRS). She received her Ph.D. degree in Quantum Science and Energy Engineering from Tohoku University (Japan) in 2008, focusing on the measurement of high intensity X-ray beams using Compton scattering. She then worked as a postdoctoral fellow on the internal dosimetry of new radiopharmaceuticals at the Japan Atomic Energy Agency (JAEA). In 2014, she joined Dr. Taiga Yamaya's group at NIRS and began working in the field of nuclear medicine physics. Her research covers detector development for positron emission tomography (PET) scanners, and she has applied newly developed PET scanners in her research group for range verification in carbon ion therapy. She has published more than 49 peer-reviewed journal articles, with 21 of them as the first author. She has received eight awards from journals and societies. She was also awarded Japanese Government (Monbukagakusho) Scholarship for her Ph.D. studies.

Statement: I have actively participated in all the annual Nuclear Science Symposium and Medical Imaging Conferences (NSS-MIC) since 2014. Over the past ten years, I have presented more than 41 presentations, including co-authored abstracts, at the NSS-MIC. In

addition, I had the honor of serving as a Topic Convener of MIC 2021 and as a session chair for MIC 2019, MIC 2021, and MIC 2022. I am currently serving as a reviewer for several esteemed academic journals (such as Physics in Medicine and Biology (PMB), IEEE Transactions on Radiation and Plasma Medical Sciences (TRPMS)), and an associate editor for Radiological Physics and Technology (RPT). Given my academic career and experiences, I am eager to broaden my international involvement and contribute to the Nuclear Medical and Imaging Sciences Council (NMISC). If elected to the NMISC, I aim to actively engage council members in academic societies, particularly encouraging the participation of young scientists and motivated students in IEEE medical imaging activities. Furthermore, I will strive to foster international collaborations within the community. It would be a tremendous honor to serve as a member of NMIC and support the development and advancement of the field of the nuclear medicine physics field. I am confident that my dedication, expertise, and passion for this field will enable me to make meaningful contributions to the council's mission.

NICOLAS A. KARAKATSANIS (S'05-M'09-SM'17) Dr. Nicolas A. Karakatsanis is appointed as Assistant Professor of Biomedical Engineering and ABSNM-certified Nuclear Medicine Physicist in the Radiology Department at Weill Cornell Medical College in New York. His current research scope includes dynamic Positron Emission Tomography (PET) imaging protocols optimization, quantitative 4D PET image reconstruction methods, Monte Carlo simulations and cost-effective total-body PET instrumentation with a focus on the wide clinical adoptability of those technologies to maximize their benefits dissemination across healthcare globally. Dr. Karakatsanis has authored more than 60 peer-reviewed original journal articles and over 90 conference records and is the recipient of the prestigious 2023 Hal O'Brien Rising Star Award in Nuclear Medicine for his leadership and contributions in clinically adoptable quantitative PET imaging. Dr Karakatsanis is past Secretary and Board Member of the SNMMI Physics, Instrumentation and Data Sciences Council (PIDSC). He is the founder of the online resources' website NMMItools.org, hosting databases of references to scientific software tools and shareable Artificial Intelligence models in Nuclear Medicine and leadership member of the Emission Tomography Standardization Initiative (ETSInitiative). He is also IEEE Senior Member, past Member and Secretary of the IEEE Nuclear Medical and Imaging Sciences Council (NMISC) and the appointed IEEE Standards Association Liaison at NPSS Administrative Committee (AdCom) to facilitate standardization initiatives across NPSS Technical Councils.

Statement: Since the beginning of my professional career in 2007 as a nuclear medicine imaging scientist and physicist, I have been fortunate to serve several initiatives in the IEEE NPSS and other Society Councils and assist in the scientific program of the IEEE NSS-MIC conference, at the beginning as abstract reviewer and later as Session Chair and Topic Convener. Meanwhile, I have been engaged in broader IEEE activities in the field of biomedical imaging including the organization of other IEEE conferences (e.g. ISBI, IST). Furthermore, I had the honor to be elected as NMISC Member early in my career and more recently to be appointed as the Secretary of NMISC for the last 4 consecutive years, and as the IEEE Standards Association Liaison at NPSS AdCom. Thus, I have personally witnessed the substantial value and unique benefits of the members interactive engagement with scientific councils especially for early-career investigators. If elected, I will therefore exploit my extensive experience and professional network across NPSS, IEEE and other societies (SNMMI) to prioritize meaningful practical incentives for (i) establishing the sustainable long-term enrollment of new NPSS members, and (ii) the mutually beneficial active participation of early-career members in NMISC activities via several career development opportunities, including on-going education, outreach, standardization and leadership events organized by our more senior members. By transfusing the new members' excitement and valuable fresh perspectives into impactful initiatives, I am confident that we can accelerate the early career development of newer members, while ensuring the sustainable growth of NMISC's impact within NPSS and elevating our members professional status. As the founder of NMMItools.org resources website and member of ETSInitiative's steering committee, I will continue leading efforts to democratize access to available open-source software, open standardized vendor-agnostic nuclear medicine scanner raw data and shareable AI models. Finally, I will foster NPSS diverse, equitable and inclusive representation policies and environmental awareness where applicable.

NEGAR OMIDVARI (GSM'15-M'18) is an Assistant Project Scientist at University of California Davis, Davis, CA, USA. She received the B.S. degree in Electrical Engineering from University of Tehran, Iran in 2011, the M.S degree in Biomedical Engineering from RWTH Aachen University, Germany in 2013, and the Ph.D. degree in Physics from Technical University of Munich, Germany in 2018. She joined Prof. Simon Cherry's group at UC Davis as a postdoctoral researcher in 2019, working on the EXPLORER total-body PET project. Dr. Omidvari's research interests include instrumentation, data processing, and clinical applications of medical imaging systems in nuclear medicine, with expertise in preclinical and clinical PET systems. Her current research is focused on T cell imaging, using two novel tracers of ^{89}Zr -Df-Crefmirlimab and ^{18}F -AraG, and she is the PI of an NIH-funded project on utilization of the lutetium background radiation for quantitative total-body PET imaging. Her recent work on total-body PET imaging of T cells was published in the prestige journal of Science Advances. She has experience in Monte-Carlo simulations, system characterization, image reconstruction, image analysis, quantification, and kinetic modeling of total-body PET systems. Dr. Omidvari received the Young Investigator Award from European Society of Molecular Imaging in 2022 and was recognized as "Ones to Watch" in 2021 by the Society of Nuclear Medicine and Molecular Imaging. She was awarded the IEEE Glenn F. Knoll Graduate Educational Grant in Nuclear Science and Instrumentation in 2018, the Valentin T. Jordanov Radiation Instrumentation Grant in 2017, and Dean's List Certificate of RWTH Aachen University for recognition among the top 5 percent best students in 2011/12 study year. Dr. Omidvari has authored and co-authored 22 peer-reviewed articles with more than 700 citations.

Statement: With more than 11 years of experience in the field of nuclear medicine, I have demonstrated expertise and dedication with contributions to various topics in this field, including radiation detectors, high-resolution, multi-modal, and total-body PET

imaging systems, simulations, quantitative imaging, as well as emerging applications for studying the immune system. Throughout my career, I have been actively involved in this community and have consistently shared my work at the IEEE NSS/MIC. Since 2021, I have contributed as a member of the conference abstract reviewers and the poster prize judging team, ensuring the quality and rigor of the scientific contributions. I have also served as a reviewer for the IEEE TNS, TMI, and TRPMS journals, to contribute to maintaining and increasing the high standards and integrity of our field. If elected to the NMISC, I will leverage my diverse experience to actively contribute to the council's objectives. I am committed to nurturing the growth of young scientists by creating platforms for mentorship and professional development, empowering them to make meaningful contributions to our field. I am eager to contribute to enhancing collaboration and engagement and with great enthusiasm, I aim to make a significant impact on the NMISC.

JUNG-YEOL YEOM (AF'17-M'21) Dr. Jung-Yeol Yeom is a full professor and currently the Chair of 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 60 journal articles and patented more than 20 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 of 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 have been serving as a committee member (general secretary, external relations officer, etc) 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.

ZHYE YIN (M'22) is a Senior Research Scientist at GE Healthcare where her research focuses on analytic, iterative and deep-learning-based CT image reconstruction algorithms, low-dose CT imaging and photon-counting CT. She received the B.S. (1997) and M.S. (1999) from Seoul National Univ., Seoul, Korea, and the Ph.D. (2003) from Purdue Univ., West Lafayette, all in electrical engineering. In 2003, She joined GE Global Research, Niskayuna, NY, as a research imaging scientist where she had worked on medical and industrial CT algorithm development for more than 18 years and led multi-disciplinary corporate research programs and government grants. She has been granted 20 patents (issued) and more than 90 journals and conference papers. She joined GE Healthcare, Waukesha, WI, in 2021. She is a scientific committee member of the International Conference on Image Formation in X-Ray Computed Tomography (CT Meeting).

Statement: My first IEEE Nuclear Science Symposium and Medical Imaging Conference was back in 2006 even though I frequented other IEEE conferences such as ICASSP and ICIP before. It had a beautiful backdrop of San Diego, plenty of CT scientists and engineers and eye-opening contents on diverse medical imaging topics. Since then, I participate in NSS/MIC regularly, reviewing abstracts and chairing sessions. While CT being critical imaging modality and providing active research topics, it has been often underrepresented in NSS/MIC. The current effort of NMISC to promote the diversity in the medical imaging community, including various modalities, academia, industry, and underrepresented groups, motivates me to apply for an NMISC member. I'd like to bring my own perspective based on 20 years of industrial research experience in CT to NMISC, especially how the discovery and the innovation can be realized from academy-industry collaborations. If elected, I'd like to actively promote inclusiveness and diversity within medical imaging community and create nourishing environment for early career scientists and engineers of any background and gender identity.

FERESHTEH YOUSEFIRIZI (AM'23-M'24) is a dedicated research programmer at the Quantitative Radiomolecular Imaging and Therapy (QURIT) Lab, led by Professor Arman Rahmim, within the Department of Integrative Oncology at the BC Cancer Research Institute in Vancouver, Canada. Her academic journey began with a Ph.D. from the School of Electrical and Computer Engineering at the University of Tehran, Iran. Since joining the QURIT Lab in 2020 as a postdoctoral researcher, Fereshteh has delved into the realm of nuclear medicine, focusing particularly on innovative applications of artificial intelligence (AI) in this field. Her primary research revolves around the automated segmentation and quantification of tumors in FDG PET/CT imaging, with a special emphasis on

lymphoma, head and neck, and cervical cancers. Her work encompasses the development and implementation of AI techniques for precise tumor delineation on PET/CT scans, as well as the exploration of novel quantitative features for prognostication across various cancer types, including federated learning approaches. Throughout her career, Fereshteh has demonstrated a prolific output in academic publishing, having authored or collaborated on a total of 18 original articles, prospective studies, and review papers over the past four years. Her contributions not only advance the understanding of medical imaging and oncology but also paved the way for more effective diagnostic and therapeutic strategies in cancer care.

Statement: Over the past three years, I've actively participated in prestigious conferences such as IEEE NSS/MIC, SNMMI, EANM, and SPIE, showcasing my dedication to leveraging artificial intelligence and data analysis for advancements in nuclear medicine, particularly in molecular imaging. With 17 years of experience in medical imaging, both as a team member and leader in research centers, and having moderated national and international conferences, I bring a wealth of expertise to the table. Additionally, I've presented a comprehensive short course on "AI in Nuclear Medicine Image Analysis & Processing" at the 2023 IEEE NSS MIC RTSD Course Day, highlighting my commitment to cutting-edge advancements. As a guest editor for a Diagnostics special issue on "Advanced Computer-Aided Diagnosis Using Medical Images," I've contributed to innovative diagnostic methodologies. If elected as a NMISC member, I aim to enhance the society's visibility across various disciplines, advocate for its significance among physicians and medical institutions, foster relationships with other societies, and curate engaging scientific and educational activities to empower future researchers and students, ultimately driving transformative advancements in nuclear medicine.

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

**Members-at-Large to the PAST ExCom
For the Four-Year Term 1 January 2025 – 31 December 2028
(VOTE FOR NO MORE THAN TWO)**

YUE HAO (M'24) Dr. Yue Hao is a Professor of Physics at Michigan State University with over 20 years of experience in particle accelerator science. He completed his Ph.D. at Indiana University and joined the Collider-Accelerator Department at Brookhaven National Laboratory for eight years before joining MSU. Dr. Hao's research focuses on beam dynamics, computational methods, and the application of data-driven models in accelerator science. He serves on various committees and as a reviewer for funding agencies, journals, and the community. He is deeply committed to educating the next generation of researchers and supporting early career scientists. Dr. Hao will also serve as the Local Organization Committee Chair for IPAC 2027.

Statement: I am excited to run for Member-at-Large on the PAST Executive Committee because I am passionate about advancing particle accelerator science and supporting community engagement. As the upcoming Local Organization Committee Chair for IPAC'27, I am uniquely positioned to bridge connections between NPSS and the community, advocating for shared goals. Throughout my career, including my education role at Michigan State University, I have seen the importance of providing resources and opportunities for young researchers. If elected, I will prioritize enhancing support for early career scientists, promoting diversity and inclusion, and strengthening community engagement. My extensive experience and collaborative projects equip me to contribute meaningfully to the Committee's mission. I am eager to leverage my expertise and dedication to support the PAST Executive Committee and make an impact on our accelerator community.

MARCO MARCHETTO (M'07) Dr. Marco Marchetto is an accelerator physicist with twenty years of experience that spans from operation to project leadership. Educated in beam dynamics, he more recently specialized in electrostatic optics and magnet design. Graduated in physics at the University of Padova, Italy, with a thesis completed at the Legnaro National Laboratory (LNL) of the National Institute for Nuclear Physics (INFN), he then moved to TRIUMF, Canada, where he also acquired his PhD in physics at the University of British Columbia (UBC). At TRIUMF, he has been appointed, amongst other responsibilities, project leader of the ARIEL RIB transport system, and the new injection line for the 500 MeV cyclotron; since 2019, he leads the Engineering Physics group in the Accelerator Systems department. He is TRIUMF representative for the North America PAC organizing committee, and in 2018 he covered the role of local organizing committee chair for the IPAC conference in Vancouver.

Statement: I am excited about the opportunity of joining the IEEE NPSS PAST executive committee and contribute to the promotion of the particle accelerator field, in particular for and with future generations of accelerator physicists and engineers. With this aspect in mind, I believe reaching out to teacher is a great initiative so they can inspire young minds to pursue a career in accelerator physics; I was inspired by my high school teacher to study physics. Teacher's day could be extended beyond the conference setting with coordinated local events, sponsored by IEEE, at national laboratories. Joining the PAST committee is also a great opportunity for me to network with my colleagues while representing the Canadian accelerator community.

DMITRY TEYTELMAN (S'91-M'01) started working in the area of accelerator feedback control and diagnostics in 1994, while studying towards his Ph.D. at Stanford Electrical Engineering department and Stanford Linear Accelerator Center. His doctoral dissertation on control and diagnostics of coupled-bunch instabilities has received the American Physical Society's award for outstanding doctoral thesis research in beam physics in 2003. In 2006, he started Dimtel, Inc. The company builds feedback control and diagnostic systems for circular accelerators. Dimtel systems are used in day-to-day operation of 32 storage rings at 26 laboratories and universities on five continents.

Statement: I am honored to be nominated to become a Member-at-Large of the NPSS Particle Accelerator Science and Technology (PAST) Technical Committee. In my career I was fortunate to participate in a large number of conferences and workshops, first as a scientist, later both as a scientist and an industrial exhibitor. This experience convinced me that it is important for every researcher in the field to attend in-person events. Online meetings, in my opinion, cannot match the bandwidth for scientific communication and the opportunities for learning available at real, physical conferences. As a Member-at-Large of the PAST I would focus on expanding the accessibility of conferences and workshops to a wider range of researchers, especially students and early career scientists. Another area of interest for me is finding ways to offer additional services to the IEEE members at accelerator conferences, such as senior member elevation events. I have been exposed to widely different institutional cultures in my interactions with existing and prospective clients at more than 25 laboratories worldwide. I hope that experience would be of value in the PAST TC environment.

YOUNG PROFESSIONAL Member-at-Large to the PAST ExCom
For a Two-Year Term 1 January 2025 – 31 December 2026
(VOTE FOR ONE)

VERA KORCHEVNYUK (GSM'24) originally from Russia, earned her Master's degree in Electrical and Computer Engineering from the Instituto Superior Tecnico in Lisbon. She gained valuable experience as a Project Associate at the European Organization for Nuclear Research (CERN), working on magnets for the Compact Linear Collider (CLIC) project. Currently, Vera is completing her PhD at the Ecole Polytechnique Federale de Lausanne (EPFL), where she merges particle tracking with magnet design, focusing on improving the performance of spectrometer magnets for FLASH radiation therapy with Very High Energy Electrons (VHEE). Her research aims to contribute to more affordable and compact medical radiation therapy facilities.

Statement: I am excited to run for the PAST Young Professional Member-at-Large position because I have experienced firsthand the positive impact of the PAST through the Early Career grant I received in 2024. As a young professional, I am well-positioned to represent early-career scientists and understand their challenges and aspirations. I want to contribute to the smooth integration of young scientists into the field of accelerator physics by ensuring that emerging professionals have the support, resources, and opportunities they need to succeed. My commitment and my background make me an ideal candidate for this position.

JOSHUA YOSKOWITZ (M'24) received his bachelor's degree in physics in 2016 from Union College where he studied air and soil pollution in the Adirondack Mountains using proton-induced X-ray emission spectroscopy. He then received his master's and PhD in accelerator physics in 2022 from Old Dominion University where he studied ion mitigation techniques within the CEBAF injector to improve the photo-gun lifetime. Joshua joined LANL as a postdoctoral researcher in 2023 and is currently working on multiple projects including studying the effectiveness of different methods to reduce beam loss within the LANSCE proton storage ring, as well as designing and modelling a compact electron accelerator.

Statement: I am excited to run for the PAST Executive Committee Early Career Member position. Throughout my career, I have popularized and increased engagement in the accelerator physics community by presenting my research at numerous conferences, mentoring students and early-career professionals, and presenting my research at the recent Science in 3 competition at LANL, for which I was selected to be one of the winners. If elected, I plan to advocate for and sponsor conferences and events that provide opportunities for early career scientists in the accelerator physics community to network, collaborate, and develop valuable skills. Thank you for considering my candidacy for the PAST Executive Committee Early Career Member position.

IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY
PULSED POWER SCIENCE AND TECHNOLOGY TECHNICAL COMMITTEE ELECTION
For a Four-Year Term 1 January 2025 – 31 December 2028
(VOTE FOR NO MORE THAN FOUR)

ISAAC J. COHEN (S'10-GSM'13-M'17) received an MSci degree in Physics from Imperial College London in 1997, and went on to study for a PhD in Plasma Physics at Dr. Isaac J. Cohen is the Microwave Technologies and Systems Development Operation Manager at Radiance Technologies in Huntsville, Alabama. He completed his PhD at the University of Texas at Arlington under the supervision of Dr. David Wetz in the Pulsed Power and Energy Laboratory. Dr. Cohen's dissertation focused on applying fuzzy logic controls to actively controlled hybrid energy storage modules for pulsed power loads in naval applications in support of Navy's Railgun program and culminated in the award of the 2016 Tom R. Burkes Outstanding Graduate Student Award at the IEEE International Power Modulator and High Voltage Conference. Prior to joining Radiance, Dr. Cohen developed pulsed power systems for plasma sources, plasma heaters, and electromagnetic confinement coils at the Lockheed Martin Skunk Works for the compact fusion reactor project. He also briefly served as a power systems design engineer at Raytheon Missile Systems. Since joining Radiance Technologies in 2019, he has been responsible for leading the development of the US Army Space and Missile Defense Command's HPM effects laboratories and the development of compact solid-state HPM components and systems.

Statement: I have had the opportunity to work in pulsed power and high power microwave technologies for the last 12 years of my career. In that time, I have worked on many different interesting and challenging technical problems, but what I have valued the most is the development of my personal and professional relationships within this community. Each year, I look forward to attending the events organized by the PPST committee for a chance to reconnect with friends and colleagues, and to introduce new and young members of my team to this community. If selected to serve on this committee, I would be honored to help facilitate ongoing collaboration, information exchange, and professional networking within our community that I have benefited from so greatly in my career.

HENRY GAUS (S'17-GSM'18-M'19) I would like to express my interest in running to be a member of the IEEE Pulsed Power Science Technology committee. My work has specifically been in the Pulsed Power realm for my entire engineering career. My leadership on the committee will help to help promote pulsed power in all facets regarding accelerator systems including Blumlein modulators, beam kickers, beam choppers, and solid-state kickers, and I know that I could offer a unique perspective through the experience I've gained in my academic and professional careers, as I have been a part of the team working on a linear accelerator at Los Alamos National laboratory. In addition, I was appointed as the Task Lead over beam chopper development for the Los Alamos Modernization Project (LAMP). I truly enjoy talking to students about Pulsed Power and have spoken at a few universities about Pulsed Power and the career opportunities that the field offers. I have also taken on the role of membership development chair of the Northern New Mexico/Los Alamos section of the IEEE. I am eager to help with the organization of the IEEE International Pulsed Power Conference, and I have enjoyed being part of the IEEE NPSS community since my collegiate days, when I founded the first NPSS student branch chapter at Texas Tech University. I look forward to continuing my membership in the professional society, and I'm looking to further my participation by serving in the IEEE Pulsed Power Science Technology Committee.

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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 16 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.

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 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.

SETH MILLER (M'24) received his BSEE from the University of Missouri – Columbia (2017), MSEE from the University of New Mexico (2021), and will be finishing his PhDEE from the University of New Mexico summer 2024. Seth's passion for pulsed power research started well before college and dates back to his high school days where he built his first cap bank to drive a coil gun for fun. During his time at the University of Missouri, Seth was involved in undergraduate research at the Center for Physical and Power Electronics helping develop new materials for high voltage capacitors and high power microwave (HPM) antennas. At the same time he also was an acting member of the IEEE student branch, where he served as vice president (14'-15'), secretary (16'-17'), and president (15'-16'). While serving he managed numerous events, jump-started a yearly robotics competition, and helped formed the electric car club that now competes in SAE electric vehicle racing. In 2015 Seth went on to a summer internship at Sandia National Laboratories that quickly transformed into 7 years, continuing into his graduate school career, and eventually leading to a senior staff position in 2022. During his 9 years at Sandia, Seth has worked on advancing various pulsed power components such as, capacitors, spark gap switches, photoconductive semiconductor switches (PCSSs), and innovative design work on Marx generators, lifetime test stands, and multi-megavolt switches for compact HPM and HED experiments. His most recent work is the development of a novel gas breakdown model that can accurately predict the phenomenon of high pressure breakdown spanning μm 's to cm's gaps.

Statement: Ever since I can remember I have always been fascinated with electricity and its ability to fuel my curiosity. It wasn't until a physics class in high school that this fascination would manifest into something physical. From the moment I realized math can be used to explain electricity I never looked back and my love for high voltage has only grown. I never thought much about where it would take me, just as long as I was learning more, that's how I ended up here, and just like what my, now retired, coworker would say jokingly, "pulsed power... it's a life sentence" and I'm guilty as charged. I truly want to give back to the pulsed power community and share my enthusiasm to get others excited about the research that we are all a part of. I think that PPST is a great avenue to do so and would appreciate the opportunity to not only help encourage the community but expand it as well. As the youngest of three in a family where college was an unknown, I consider myself lucky to have found pulsed power. That is why getting students involved in the PPST community is important to me since I know there are plenty of students that would love to do this type of work but may not even know about it. This is why outreach is important and can have impactful lasting effects, having planned multiple events and competitions, I think it would be awesome to have more attention around getting students involved in pulsed power. This is why I would be honored to serve on the IEEE NPSS PPST Committee.

JON CAMERON POUNCEY (M'05-SM'20) 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 PhD 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 and son, Mars.

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) earned his B.S., M.S., and Ph.D. degrees in electrical engineering from Sungkyunkwan University, Seoul, South Korea, in 1991, 1995, and 2001, respectively. He worked for the Electric Propulsion Research Division, Korea Electrotechnology Research Institute, Changwon, South Korea, as a principal research engineer, from 1996 to 2015, where he led the Pulsed Power World Class Laboratory and was the director of the Electric Propulsion Research Center. From 2004 to 2005, he was a visiting scholar with the Wisconsin Electric Machines and Power Electronics Consortium, University of Wisconsin–Madison,

Madison, WI, USA. Moreover, he was a professor at the Department of Energy Conversion Technology, University of Science and Technology, Daejeon, South Korea from 2005 to 2015. In 2015, he joined the School of Energy Systems Engineering, Chung-Ang University, Seoul, where he is currently a professor of Electrical Energy Engineering. His current research interests include compact and high repetitive solid-state modulator design and its applications, including high-efficient, high-voltage power converters. Prof. Ryoo is the International Committee Member of the Euro-Asian Pulsed Power Conference (EAPPC), the general chair of EAPPC 2022, the Committee Member of IEEE Nuclear and Plasma Sciences Society Pulsed Power Science and Technology, the technical committee member of IEEE International Power Modulator and High Voltage Conference, the general affairs director of the Korean Institute of Power Electronics and the Korean Institute of Electrical Engineers, the chairperson of the High Voltage and Pulsed Power Application Research Council of the Korean Institute of Power Electronics, and the vice president of the Korean Institute of Illuminations and Electrical Installation Engineers.

Major Career in the research field of pulsed power:

- IEEE NPSS PPST Committee Member (Jan.2022 ~ present)
- KIPE Chairman of the High Voltage & Pulsed Power Application Research Council (Jan.2021–present)
- General Chair of the Euro-Asian Pulsed Power Conference 2022 (2022)
- Guest Editor of the Transactions on Plasma Science Special Issues for EAPPC/BEAMS/Megagauss2016 (Nov.2016 ~ Oct. 2017)
- International Organizing Committee member of Euro-Asian Pulsed Power Conference (Jan.2014 ~ present)
- Technical Committee member of IEEE IPMHVC (International Power Modulator and High Voltage Conference) (Mar. 2013 ~ present)
- Director of Electric Propulsion Center in (Korea Electrotechnology Research Institute (hereafter referred as KERI) (Nov. 2014 ~Aug. 2015)
- Lab leader of the pulsed power world class lab in KERI (Nov. 2010 ~ Aug. 2015)
- Team leader of pulsed power team in KERI (July, 2007 ~ Aug. 2015)
- Published more than 40 papers in IEEE transactions (TPS, TDEI, TIE, TPE)

Statement: I have been contributing to the field of pulse power technology in Korea for the past 25 years. I have led various research related to the compact, high-efficiency, high-density solid-state modulator incorporating modern power electronics technology. The activities of the PPST Committee over the past two years have provided me with an opportunity to expand research exchanges, and I am confident that this activity was great help to the continued research cooperation and development of the related research fields of myself and the committee members.

I believe I can continue to make significant contributions as a member of the PPST committee in the future, and this position will allow me to interact and collaborate with other researchers in the field of pulsed power and plasma applications. I have served as an IOC member of EAPPC (Euro-Asian Pulsed Power Conference), the chairperson of KIPE(Korean Institute of Power Electronics) High Voltage & Pulsed Power Application Research Council, and hosted the EAPPC2022 conference in Korea as the general chair. Based on these experiences. Based on this experience, I would like to continue to make a significant contribution to expanding PPST's global research activities, especially to the Asian region.

IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY
PLASMA SCIENCE AND APPLICATIONS EXECUTIVE COMMITTEE ELECTION
For a Three-Year Term 1 January 2025 – 31 December 2027
(VOTE FOR NO MORE THAN SIX)

KEN HARA (GSM'13-M'14-SM'22) is Assistant Professor of Aeronautics and Astronautics at Stanford University. He received Ph.D. in Aerospace Engineering and Graduate Certificate in Plasma Science and Engineering from the University of Michigan, and B.S. and M.S. in Aeronautics and Astronautics from the University of Tokyo. He was a Visiting Research Physicist at Princeton Plasma Physics Laboratory as a Japan Society for the Promotion of Science Postdoctoral Fellow. Prior to joining Stanford, he spent three years as a faculty member in the Department of Aerospace Engineering at Texas A&M University. Professor Hara's research interests include electric propulsion, low temperature plasmas, data-driven model, and computational fluid and plasma dynamics. He is a recipient of several awards, including the IEEE Nuclear and Plasma Sciences Society (NPSS) Graduate Scholarship Award and Early Achievement Award, Noah Hershkowitz Early Career Award from Plasma Sources Science and Technology, the Air Force Young Investigator Program Award, and the Department of Energy Early Career Award, the Office of Naval Research Young Investigator Award, and Kuriki Award for Young Professionals from Electric Rocket Propulsion Society.

MICHAEL HUA (GSM'19-M'24) Dr. Michael Hua earned his Ph.D. from the University of Michigan's Department of Nuclear Engineering and Radiological Sciences with a dissertation focused on radiation detection and neutron noise analyses for nuclear nonproliferation and criticality safety. Michael founded the University of Michigan's student branch of IEEE NPSS during his Ph.D. studies, was treasurer for a regional section of IEEE NPSS, and won the IEEE NPSS Graduate Scholarship Award and the NPSS Glenn F. Knoll Graduate Education Grant. Michael then joined Helion Energy, a fusion energy startup company, as a fusion scientist working on neutron diagnostics. He has since become Helion's Director of Nuclear, leading a team that comprises radiation safety and regulatory affairs, nuclear engineering, materials engineering, and chemical engineering for the fuel cycle. Activities include public briefings to the Nuclear Regulatory Commission and International Atomic Energy Agency, optimizing fusion generator operation using genetic algorithms, developing novel plasma-facing materials, and engineering isotope separation/tritium management technologies.

MICHAEL KEIDAR (M'98-SM'01) is A. James Clark Professor of Engineering at the George Washington University. His research concerns plasma physics and engineering with application in advanced spacecraft propulsion, plasma medicine and plasma-based nanotechnology. He has authored over 340 journal articles, 330 conference papers, author of textbook "Plasma Engineering" and book "Plasma Cancer Therapy". He received 2017 Davidson award in plasma physics. In 2016 he received AIAA Engineer of the Year award for his work on micropropulsion resulted in successful launch of nanosatellite with thrusters developed by his laboratory. He received Plasma Medicine Award in 2021. Prof. Keidar serves as an Editor in Chief of Journal of Electric Propulsion, AIP Advances academic editor, Associate Editor of IEEE Transactions in Radiation and Plasma Medical Sciences and member of editorial board of half dozen of journals. He is elected Fellow of National Academy of Investors, Fellow of American Physical Society and Fellow of American Institute of Astronautics and Aeronautics. He is elected President of the Electric Rocket Propulsion Society.

ADRIAN LOPEZ (M'16) is a Plasma Research Scientist at Oak Ridge National Laboratory (ORNL), where he studies metal plasmas for isotope enrichment applications. His contributions to ORNL's research and development of metal plasma sources and diagnostics have been critical to recent advancements of ORNL's plasma-based enrichment technologies. Before joining ORNL in 2020, Adrian spent three years as a research physicist at the U.S. Air Force Research Laboratory, where he investigated the generation and characteristics of high-power microwave plasmas. Prior to that, he spent seven years in the automotive industry as a mechanical engineer while completing his graduate education at Wayne State University (M.S. in Mechanical Engineering) and the University of Michigan (Ph.D. in Nuclear Engineering). Adrian stays involved in the academic community by mentoring students through various national programs, including NSF Industry-University Cooperative Research Centers (IUCRCs) – he recently served as Industry Board Member for the NSF's High Pressure Plasma Energy, Agriculture, and Biomedical Technologies IUCRC.

JOSE O. ROSSI (M'05-SM'12) was born in Brazil in 1958. He received a B.Sc. degree in electrical engineering from Campinas University, Campinas, SP, Brazil, in 1982, an M.Sc. degree in electronics from the Technological Institute of Aeronautics (ITA), São Jose dos Campos, SP, Brazil, in 1992, and a Ph.D. degree in engineering science from Oxford University, Oxford, U.K., 1998. Dr. Rossi has been with the National Institute for Space Research (INPE), Sao Jose dos Campos, SP, Brazil, since 1983, working on pulsed power generators for microwave generation and surface treatment by plasma implantation. From 1994 to 1998, he engaged in a Ph.D. program on pulsed power systems and transmission line transformers at the Department of Engineering Science, Oxford University. During the academic year of 2007–2008, he was a Visiting Scientist with the Department of Electrical and Computer Engineering, University of New Mexico, Albuquerque, where he was involved with the research on dielectrics of high breakdown strength for compact energy storage systems. His research interests include plasma surface processing applications, nonlinear transmission lines, high-voltage ceramic dielectrics for pulsed power supplies, and RF generation sources for space and defense systems. Dr. Rossi is an IEEE senior and member of Brazilian Power Electronics, Brazilian Physics, and IEEE/NPSS Societies. He is

a consultant on research projects for the National Council for Scientific and Technological Development (CNPq), Brazil, and a peer reviewer for journals such as Transactions on Plasma Science, Review of Scientific Instruments, etc. Dr. Rossi authored and co-authored 70 refereed journal papers and over 200 reviewed conference papers. He is a past member of the IEEE PPST committee, served during 2013 -2016, and was head of the Plasma Laboratory at INPE from 2015-2020.

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 in 2003, and the Ph.D. degree in electrical engineering from the Graduate University, Chinese Academy of Sciences (CAS), Beijing, China, in 2006. Dr. Shao 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. His current research is on atmospheric-pressure gas discharges and plasma applications driven by pulsed power. He has been an IEEE member since 2010 and is currently an IEEE Senior Member and a Fellow of the Institution of Engineering and Technology (IET). He is a regular attendee at IEEE international conferences related to pulsed power and discharge plasma, including the IEEE International Conference on Plasma Science (ICOPS), the IEEE Pulsed Power Conference (PPC), and the IEEE International Power Modulator and High Voltage Conference (IPMHVC). He has published more than 300 papers, including 150+ papers in international refereed journals (50+ IEEE Transactions, etc.), 70+ domestic journal papers, and 30+ IEEE international conference papers/abstracts. He served as a Co-Guest Editor of the IEEE Trans. Plasma Sci. Special Issue on Invited and Plenary Papers from ICOPS 2015 and on Pulsed Power Science and Technology in 2022, and served as the Chief Guest Editor of the IEEE Trans. Plasma Sci. Special Issue on Atmospheric Pressure Plasmas and Their Applications in 2016. He served as Co-Guest Editor of the IEEE Trans. Dielectr. Electr. Insul. Special Issue on Power Modulators and Repetitive Pulsed Power in 2015 and has been an Associate editor of the IEEE Trans. Dielectr. Electr. Insul. since 2018. He received the 2018 William G. Dunbar Award For “continuing contributions to high voltage technology, research into the domain of fast electrical breakdown phenomena, and engineering education” from the IEEE International Power Modulator and High Voltage Conference. He served as a member of IEEE NPSS Standing Technical Committee for Pulsed Power Science and Technology from 2022 to 2025. He played a major role in the establishment of the IEEE NPSS Beijing Chapter in 2023, and is currently the Vice-Chair and Plasma Science and Applications sub-Chair of the chapter. He was the General Chair of the 2024 IEEE International Conference on Plasma Science, which was the first ICOPS to China. His goal if elected is to serve the Plasma Science and Applications Committee (PSAC) and to promote its growth, particularly within China and the rest of Asia, as well as to encourage increased communications between PSAC and China. He intends to promote further scientific and educational activities and to ensure that Chinese scientists participate in IEEE plasma science and applications activities.

NAOKI SHIRAI (GSM'07-M'09) was born in Japan in 1980. He completed the doctoral program at Tokyo Institute of Technology (electrical and electronic engineering, Graduate School of Science and Engineering) in 2008 and was appointed a JSPS Fellow. He was an assistant professor at Tokyo Metropolitan University since 2009. He has been an associate professor at Hokkaido University since 2016. He holds a D.Eng. degree, and is a member of IEEEJ(The Institute of Electrical Engineers Japan), JSAP(Japan Society of Applied Physics) and IEEE. He is mainly engaged in research on atmospheric pressure plasma generation and plasma-liquid interaction.

SHAUN SMITH (M'24) is a senior staff scientist at Lam Research with over ten years of experience in the semiconductor manufacturing equipment space. As a member of the plasma source engineering team in the deposition products group (DPG), Shaun's focus is on research and development for inductively coupled plasma sources. Prior to Lam, Shaun was a senior scientist at MKS Instruments where he worked on the plasma and reactive gas solutions (P&RGS) business unit. There, he led toroidal plasma source development and consulted on microwave sources and ozone generator research. Working with Dr. Jeffrey Hopwood, Shaun received his master's in electrical engineering from Tufts University and has a Bachelor of Physics from UMass Lowell.

SEDINA TSIKATA (M'24) Dr. Sedina Tsikata's research interests are the fundamental nature and applications of magnetized plasmas, with a focus on the development of advanced diagnostics, analysis methods, control, and new plasma devices. Her research has been applied to the study of instabilities and electron features in Hall plasma thrusters for space propulsion and in other magnetized plasma environments relevant to materials processing and accelerator physics. Dr. Tsikata's research has involved the development of new laser scattering platforms providing unprecedented access to electron dynamics and properties in low-temperature, crossed-field devices. Prior to joining the Georgia Institute of Technology as an Associate Professor in 2023, Dr. Tsikata was a researcher with the CNRS (the National Center for Scientific Research) in France. Dr. Tsikata received graduate degrees from the Ecole Polytechnique in France, and a bachelor's degree from the Massachusetts Institute of Technology. Dr. Tsikata is the recipient of international awards which include the 2022 Crookes Prize, co-sponsored by the European Physical Society and Institute of Physics Publishing, and the 2019 AIAA Outstanding Technical Achievement Award in Electric Propulsion. She has also received French national awards (2020 Bronze Medal of the CNRS, and the 2011 René Pellat Prize of the French Physics Society). Dr. Tsikata is the author of 34 peer-reviewed journal publications and has given invited talks at 12 international conferences and multiple other international workshops. Dr. Tsikata is also a member of the editorial boards for 4 scientific journals and a member of the AIAA Electric Propulsion Technical Committee.

ZHEHUI (JEPH) WANG (M'14-SM'21) Dr. Zhehui (Jeph) Wang is a physicist with Los Alamos National Laboratory and a senior member of IEEE. He obtained his Ph. D in experimental plasma physics from Princeton University. He led fundamental and applied physics projects including flowing magnetized plasmas, laminar plasma dynamos, hypervelocity dust injection technology for controlled thermonuclear fusion, high-speed X-ray imaging for dynamic materials using synchrotrons and X-ray free electron lasers, solid state and position-sensitive imaging detectors for fundamental physics of free neutrons. In recent years, His team and collaborators have been concentrated on radiographic imaging hardware and software advances for multiple fields and applications, ranging from ultra-hot fusion plasmas to quantum physics of ultra-cold neutrons. The efforts have since grown into a multi-institutional inter-disciplinary collaboration to advance the '10H' frontiers in high-speed imaging and radiography. Dr. Wang has been a guest editor for IEEE Trans. Plasma Science, Nuclear Instruments and Methods in Physics Research - section A, and Applied Optics. Dr. Wang co-organized or chaired various conferences and symposiums in imaging including Ultrafast Imaging and Tracking Instrumentation, Methods and Applications Conference (ULITIMA, 2018, 2023); 16th International Conference on Scintillating Materials & their Applications (SCINT 2022); Radiographic Imaging and Tomography (RadIT, 2023, 2024). He is on the scientific committee for the topical conference on High Temperature Plasma Diagnostics (HTPD). Dr. Wang is also a member of the executive scientific committee for the International Conference on Data-Driven Plasma Science (ICDDPS), a dedicated international forum to discuss the latest advances in the machine learning and artificial intelligence for plasma science.

BENJAMIN YEE (GSM'09-M'13) Dr. Benjamin Yee is a Senior Staff Plasma Physicist with the Lam Research Corporation. He is an expert on plasma sources for thin film deposition, including PECVD and PEALD. He specializes in plasma stability for high power rf discharges and optical diagnostics. Prior to Lam, Benjamin was a Senior Member of the Technical Staff at Sandia National Laboratories. There he studied anodic plasma interfaces with advanced laser diagnostics and kinetic plasma models, developed plasma reaction mechanisms for a diverse range of applications, and created novel diagnostics for pulsed power systems. As a founding co-PI of the Sandia Plasma Research Facility, longtime contributor to the LXCat project, and participant in DOE FES planning for low temperature plasmas, Benjamin has been an active member of the plasma community for over ten years. He is currently involved in collaborations with national labs and academia touching on a diverse range of topics such as secondary electron emission mechanisms and plasma coupling to gas dynamics.

CHI-SHUNG YIP (GSM'09-M'14) was born in Hong Kong SAR, China in 1983. He received his B.A. in Physics and Philosophy degree from Boston University, Massachusetts, USA, in 2007, and his Ph.D degree in Engineering Physics from the University of Wisconsin – Madison, USA in 2013. He stayed in UW-Madison as a Research Associate and later an Assistant Scientist until 2017 when he joined the Institute of Plasma Physics, Hefei Institute of Physical Sciences (HFIPS), Chinese Academy of Sciences as an Associate Scientist. He is now a Full Scientist in the HFIPS. He served as a member of the youth organization committee of the 2nd Helicon Plasma Physics and Application Workshop in 2024 hosted in Chongqing, China, and is currently a member of the editorial board of the Journal of Propulsion Technology. Chi-Shung Yip's primary research interest lies in experimental basic plasma physics, particularly studies of sheath/pre-sheath formation mechanisms and their effects on plasma parameters and on probe diagnostics. He is also involved in studies of physics and techniques associated with LIF diagnostics techniques, helicon plasmas, and novel plasma sources. He participated in the HFIPS's project of its next generation tokamak device as a vice leader of the Laser-Aided Plasma Diagnostics (LAPD) Task Force, and is responsible for design and R&D of its laser-induced fluorescence (LIF) diagnostics of helium ash at the edge and near the divertor of the new tokamak.

PENG ZHANG (GSM'06-M'08-SM'18) is Associate Professor (Assistant Professor, 2016-2021) in the Department of Electrical and Computer Engineering at Michigan State University. He received his B.Eng. and M.Eng. degrees in electrical and electronic engineering from Nanyang Technological University, Singapore, in 2006 and 2008, respectively, and his Ph.D. degree in nuclear engineering and radiological sciences from the University of Michigan, Ann Arbor, in 2012. His research interests are in the theory and modeling of nanoelectronics, plasmas, and accelerator technology. He has worked on electrical contacts, diode physics, beam-wave interaction, multifactor and electrical breakdown, z-pinch, laser-plasma interaction, and more recently on quantum tunneling plasmonic junctions, ultrafast photoemission, and vacuum nano devices. He was a recipient of the IEEE NPSS Early Achievement Award, the AFOSR Young Investigator Program Award, and the ONR Young Investigator Program Award. He serves on the editorial board of Scientific Reports and has been serving as a Guest Editor of IEEE Transactions for Plasma Science four times.

IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY ELECTION

RADIATION INSTRUMENTATION STEERING COMMITTEE ELECTION

For a Three-Year Term 1 January 2025 – 31 December 2027

(VOTE FOR NO MORE THAN FIVE)

CINZIA DA VIÀ (AM'04-M'05-SM'20) is a Professor of Physics at the University of Manchester UK, and currently a visiting Professor at Stony Brook University USA. She is an expert in innovative radiation detectors for High-Energy Physics, Medical applications and on Quantum Imaging with X-Rays. She is in the scientific committee of several international conferences on Radiation Detectors and Instrumentation and a senior member of IEEE Nuclear and Plasma Society (NPSS). She was the Nuclear Science Symposium (NSS) Chair in 2019. Member of the International IEEE Women in Engineering Committee, she was the recipient of the Committee Outstanding Volunteer of the Year Award. She is also the co-chair of the EU-ATTRACT initiative, member of the European Physical Society Technical Innovation Group, the IUPAP (International Union of Pure and Applied Physics) Physics and Industry Work Package, and the leader of the Nuclear and Plasma Science Society Initiative on Climate Change. She is the chief editor of Frontiers in Physics Radiation Detection and Imaging Journal.

Statement: With three decades of experience in the field of radiation detection and instrumentation, I have dedicated my career to advancing the technology and its applications in various sectors, including medical imaging, nuclear safety, and scientific research.

My professional career has also equipped me with a good understanding of the challenges presented by running IEEE radiation instrumentation conferences as the NSS Chair in 2019. The pandemic has left deep consequences on the way we travel and communicate, and on the way funding restrictions oblige a draconian selection of the meetings we attend in person. For this I believe we should continue to analyse the competitiveness of our meetings, scientifically, but also for the experience delegates will have in visiting new venues and countries and for the contribution they will have to promoting mentorship and education to the younger members of our community.

As a passionate advocate for interdisciplinary collaboration, I believe that the exchange of ideas between academia, industry, and education is crucial for the continued advancement of our field. Serving on the IEEE Radiation Instrumentation Steering Committee, I aim to foster such collaborations, promote cutting-edge research, and support initiatives that advance the development and application of radiation instrumentation technology while promoting and supporting equality, diversity and inclusion for the benefit of science and society.

ANDREA FABBRI (S'07-GSM'08-M'09) is a Research Engineering at INFN (Istituto Nazionale di Fisica Nucleare – National Institute of Nuclear Physics). Since 2019 he works in the Roma Tre section of the Institute where currently is the local coordinator of the INFN National Scientific Committee 5, dedicated to technological research and applied physics, and the head of the Electronic service. Andrea received his PhD in Electronics from the University of Rome “Roma Tre” (Italy) in 2010, defending an experimental thesis regarding a novel gamma camera instrumentation for medical application and the related imaging algorithm. During post-doctoral collaborations with “Roma Tre” and “La Sapienza” universities the PhD research activities were expanded in different research projects, founded by INFN, private companies and European Funds. His work was focused on developing imaging detectors for SPECT and combined UltraSound/SPECT applications other than readout electronics for synthetic monocrystalline diamond sensors used as dosimetric and microdosimetric systems in radio and hadrotherapy applications. During the post-doctoral activities, Andrea works as consultant for private companies in fields such as x-ray mammography and functional tests with proton and ion beams for satellite components. His most recent activities include: - design and development of TAO detector, a satellite detector in the JUNO collaboration mainframe. TAO detector is based on 11 squared meters of SiPM and several tons of liquid scintillator, its goal is measuring the neutrino flux coming from a NPP reactor core. - design and development of integrated dosimetric and microdosimetric system for high LET particle beams characterization. - design of electronic boards for a LEO space mission, financed by Italian Space Agency (ASI).

Statement: I always saw a great effort from the IEEE-NPSS people to increase the involvement of people working in radiation instrumentation field, both from academia and industry, from all the countries. I greatly appreciate the striving to organize conferences all over the world, like the NSS-MIC, moving from US to Europe, Asia and Australia. Traveling and sharing working experiences with people all around the world is a great strength for every stage of a researcher's career. I would be happy to help prepare contexts in which these interactions can be more and more frequent.

I think I can offer my contribution to the community thanks to my past works in several fields related to IEEE-NPSS, like nuclear medicine, high energy physics or space environment. I have been fortunate to work in large scientific collaborations as well as small projects with a handful of people involved, as well as develop equipment in these fields in an industrial context. I understood from my previous experiences that gathering people from complementary fields and with different levels of experience, from recent graduates to the most prominent personalities in our fields is an unmatched resource to improve the quality of our society, aiming for bigger results in less time and with less waste of resources.

I would like to contribute to increasing the level of interaction and knowledge sharing between the different application fields that use radiation instrumentations, detectors and measurement techniques.

At the moment, as a person in his forties, also dedicated to student training in university and PhD courses other than in laboratory activities, I think I can help understanding how to involve the new generation in the IEEE-NPSS activities that can help them blossom their competencies giving new life to the already established groups and prominent personalities in our fields.

MAREK FLASKA (M'06-AF'08-AM'11-M'12) Dr. Marek Flaska is a tenured associate professor of Ken and Mary Alice Lindquist Nuclear Engineering Department at the Pennsylvania State University (PSU). He received his Ph.D. in Applied Physics from Delft University of Technology, The Netherlands, in 2006, and he has been working in the fields of nuclear nonproliferation, nuclear safeguards, nuclear forensics, health physics, and fundamental nuclear physics since. He is the founder and director of the Radiation Detection, Characterization, and Imaging Laboratories at PSU. His interests include novel instrumentation techniques for identification and characterization of nuclear materials for nuclear nonproliferation, safeguards, and forensics applications, particle imaging, neutron activation analysis, alpha, neutron, and gamma-ray spectroscopy, fundamental-physics experiments, health physics, and novel digital data-acquisition systems. During his professional career he has published more than 230 papers in peer-reviewed scientific journals and international conference proceedings. His PSU teaching activities include undergraduate- and graduate-level courses on radiation detection for nuclear nonproliferation and safeguards, radiation detection instrumentation, radiation transport, and health physics. Dr. Flaska has been an active member of the IEEE Nuclear and Plasma Sciences Society for almost 20 years, and he serves regularly as an NSS session convener, session chair, and paper reviewer.

Statement: I would like to utilize my nuclear engineering and physics expertise to help promoting our fields throughout the scientific community and public, as well as to serve the interests and needs of participants of the annual NSS/MIC meetings. I perceive these meetings as the most relevant radiation instrumentation conference of the year, and it would be my mission, if elected as a member of the Radiation Instrumentation Steering Committee, to further promote these meetings by popularizing their topics among nuclear engineers, physicists, industry experts, and beyond. These meetings need to continue being greatly beneficial to the attendees by strategically selecting meeting programs and topics, and thereby shaping the future of our fields. Another important objective I would like to pursue is to attract even more scientists, especially young professionals and undergraduate/graduate students to attend the NSS/MIC meetings, to further reinforce our mission and strengthen the long-term quality and professional growth. I have been actively contributing to the NSS/MIC meetings for almost 20 years and it would be an honor to serve the NSS/MIC community by making these meetings the ultimate events for the radiation instrumentation and imaging experts.

BETHANY GOLDBLUM (M'24) Dr. Bethany Goldblum is an associate professor in the Department of Nuclear Engineering at the University of California, Berkeley and a faculty scientist in the Nuclear Science Division at Lawrence Berkeley National Laboratory. She is Executive Director of the Nuclear Science and Security Consortium, a multi-institution initiative that brings together eleven universities and five U.S. DOE National Laboratories to train the next generation of nuclear security experts. Her research focuses on experimental nuclear physics, neutron detection and scintillator characterization, artificial intelligence for nuclear applications, and nuclear weapons policy. Goldblum also leads the Bay Area Neutron Group, a research team focused on neutron detection for national security applications, and founded and directs the Nuclear Policy Working Group, an interdisciplinary team of scholars developing policy solutions to strengthen global nuclear security. She has been involved with the Public Policy and Nuclear Threats Boot Camp nearly since its inception and acted as director of the program since 2014. She is author or co-author of more than 100 publications on nuclear science and policy issues and recipient of the 2020 James Corones Award in Leadership, Community Building, and Communication. Goldblum received a Ph.D. in Nuclear Engineering from the University of California, Berkeley.

Statement: Having participated in the IEEE Nuclear Science Symposium (NSS) and SORMA meetings over the years, including serving as topical area lead for neutron detectors as part of the 2023 NSS Program, I have had the opportunity to experience firsthand the impact these gatherings have on advancing radiation instrumentation and fostering global research collaborations. Serving on the RISC would give me the opportunity to give back to the IEEE Nuclear and Plasma Sciences Society by helping to facilitate the NSS meetings, acknowledging the outstanding contributions of our field's members through the RISC Awards Subcommittee, and promoting opportunities for early career scientists through travel grants and student paper awards. This role would also allow me to deepen my connections within the radiation detection community and stay aware of cutting-edge advancements, while working alongside esteemed colleagues in our field.

HARTMUT HILLEMANN (M'08-SM'10) is an experimental physicist working for the ALICE Experiment in the EP division at CERN. During his thesis, he worked on the development and characterization of detector prototypes for the electromagnetic calorimeter of the CMS experiment and received a PhD from RWTH Aachen, Germany, in 1995. He continued to work on particle physics detectors during his postdoctoral research at RWTH Aachen and LPNHE in Paris. From 1999 to 2005 he held various managerial positions in Swiss IT companies, before joining the Technology Transfer Group of CERN in 2005, where he was in charge of the assessment and dissemination of the radiation detection technology portfolio, as well as for fostering R&D projects on detection technologies of potential use for applications outside high energy physics. In 2012 he joined the ALICE experiment, where he worked on the development and production of monolithic active pixel sensors for the upgrade of the Inner Tracking System. He is currently working on the development of new, wafer-scale bent and stitched monolithic active pixel sensors for the next upgrade of the ALICE Inner Tracking System and the ALICE3 proposal for a new heavy ion experiment at CERN. Hartmut is IEEE Senior Member and has served as RISC member between 2018 and 2021.

Statement: I have been working for most of my career in the field of instrumentation for radiation detection, covering a wide range of different detection technologies. For some years I have also been contributing to the IEEE meetings with talks and the organization of technology transfer events. If being elected to RISC, I will make available my technology expertise together with my professional

experience in industry and in the dissemination of high energy physics detection technologies in order to contribute to shaping the future of the NSS/MIC/RTSD community in the coming years. Also and more particularly in view of the upcoming proposals for future large scale projects, I would like to continue to contribute keeping instrumentation for radiation detection an attractive field for the career of young members of our community, as well as to identify and assess opportunities and synergies to disseminate the technologies, expertise and knowhow of our field to a wide range of applications in order to enhance the recognition and acceptance of our field by society at large.

TRANG HOANG (M'21) is a faculty member at the University of Science, which is part of Vietnam National University Ho Chi Minh City (VNU-HCM). She earned her doctoral degree in Experimental High Energy Physics from Florida State University, where she conducted research at the D0 collaboration at Fermi National Accelerator Laboratory.

Trang's research interests include Monte Carlo simulation, data analysis, image processing, artificial neural networks, and the development of interactive virtual laboratories. In addition to her research pursuits, she has experience designing and delivering medical physics education programs at the University of Science, VNU-HCM.

Throughout her career, Trang has demonstrated a strong commitment to fostering international collaboration. She has played an active role in facilitating successful research and educational partnerships between the University of Science and institutions in Japan, Taiwan, Canada, and Australia. She also helps increase the presence and awareness of IEEE-NPSS in Vietnam through collaborating to organize scientific events as well as carrying out research projects.

Since 2019, Trang has been actively involved in organizing and lecturing at IEEE-NPSS international schools focused on nuclear instrumentation and medical physics. Beyond her academic and research work, she is also dedicated to promoting the participation of women in engineering and science, and has attended and spoken at various Women in Engineering events.

Statement: With over 15 years of experience as a university lecturer and being an active member of IEEE, I am highly interested in contributing to the work of the Radiation Instrumentation Steering Committee (RISC). If chosen, I will dedicate my time and effort to promote collaboration and ensure effective communication channels, thereby enhancing the overall effectiveness of the committee's efforts. Since 2019, I have actively engaged in giving lectures and served as an organizational member in various IEEE-NPSS RealTime Instrumentation Schools. These activities have provided me with favorable opportunities to establish connections with numerous proactive IEEE-NPSS members. Additionally, I have been actively supporting students and young researchers, as well as facilitating the development of outstanding female scientists, enabling them to enhance their capabilities.

DONALD HORNBACK (M'23) is the Director of the National Security Program Office of Brookhaven National Laboratory. Donny joined BNL in November 2022 after serving as a program manager at the Intelligence Advanced Research Projects Activity (IARPA) within the Office of the Director of National Intelligence. While at IARPA he pursued and managed programs in nuclear detection and counter adversarial artificial intelligence. From 2016-2021, he was a senior program manager at DOE/NNSA's Office of Defense Nuclear Nonproliferation Research and Development (NA-22). At NA-22, he directed research portfolios focused on radiation detection, nuclear laboratory analysis enhancement, accelerator technologies, and he initiated a new research portfolio in nonproliferation nuclear data. Prior to NA-22, he held a position as a staff physicist at ORNL from 2010-2016 working both in fundamental physics and national security with emphasis on nuclear detection instrumentation. He completed his PhD in experimental nuclear physics as a member of the PHENIX Collaboration at BNL in 2008. Prior to studying physics, Donny was an airborne Arabic crypto-linguist in the US Air Force flying over 120 missions on the Rivet Joint platform based from the UK, Greece, and Saudi Arabia.

Statement: My perspective on RISC is informed strongly through my career path. My graduate work as an experimentalist in DOE-SC Nuclear Physics transitioned to a hybrid researcher for a number of sponsors, both in fundamental and applied research. My applied research moved into areas supported by national security sponsors, and it involved electronics, materials, simulations, and algorithm development on a number of topics. By what was essentially a chance encounter, I moved from my staff physicist position at Oak Ridge National Laboratory to DOE-HQ as a program manager at DOE National Nuclear Security Administration's Office of Defense Nuclear Nonproliferation Research and Development (aka NA-22). I inherited the radiation detection portfolio as a federal program manager in a time of change within the US Sponsor community for this community and sponsored radiation instrumentation research for seven years. US funding in key radiation detection areas (especially from the national security side) has somewhat stagnated or decreased, and government policy leaders in the US have perceived limited progress in some application areas, or intrinsic limitations from investments in radiation instrumentation. I want to contribute to RISC to bring both my technical background and my unique understanding of US government approaches to R&D funding in relevant areas to assist in communicating prioritizations and impacts of continued investments. After speaking with John Valentine, he made me believe that I had something meaningful to contribute with my broad perspective, despite that fact that I was prohibited while in government from being an active researcher. I have returned to being a DOE lab employee as a technical manager.

OLIVIER LIMOUSIN (AF'24) is Research Director at CEA/Irfu in the field of instrumentation for space sciences. He is the Operational Manager of the ALB3DO lab (Advanced Lab for 3D Detection Device Development), a joint lab of CEA and 3D PLUS French company. He is a permanent staff member and former head of the Space Imaging Spectrometer Lab into the Astrophysics division of CEA. He is a

recognized international expert of semiconductor-based X and gamma ray imaging spectrometers, associated CMOS electronics and 3D hybridization technologies. He was involved in the CdTe imager of the INTEGRAL satellite (ESA, Europe) prior to trigger an ambitious R&D program for advance and miniaturized CdTe based imaging spectrometer relying on a 3D integration process by 3D PLUS. This program has permitted the creation of an entirely new concept of high performance and high reliability gamma camera named CALISTE. After 20 years of tight collaboration with 3D PLUS, his knowledge of 3D polymer-based technology enables new innovative research programs with even higher electronics density and lower noise. Besides his activities on instrument design, promoting 3D technologies and microelectronics for future spaceborne applications, Olivier Limousin was involved in many space-science projects such as Solar Orbiter(ESA, Europe), ASTRO-H (JAXA, Japan), CINEMA Trio (UCB/SSL and NSF, USA), SVOM/ECLAIRs (CNES/CAS, France-China), PADRE (UCB/SSL and NASA USA) and is contributing to industrial developments of CALISTE technology into nuclear or medical applications. In recent years, he was appointed by the High Commissioner for Atomic Energy to create a cross-cutting instrumentation program at CEA level, which he led from 2017 to mid-2020. Finally, Olivier Limousin is the chairman of the International Conference on New Development in Photodetection gathering more than 200 scientists and industrial partners from more than 20 countries every three years.

Statement: I am very honored to have been nominated for election as a member-at-large of RISC. I have experience in organizing and leading international conferences (mainly NDIP, *New Developments in Photodetection*) and in participating in international scientific committees (SPIE, ECPD, ANNIMA, ...). I am very enthusiastic about the idea of bringing people together, in an open spirit, to share their most creative developments in the field of instrumentation for physics but also in other areas of societal or industrial applications.

My experience and network could certainly be useful in contributing to RISC. I want to be honest with you, the expected work is not totally clear to me, but I'm sure that my open-mindedness, creativity, interest in promoting our research field and people, especially young researchers, are very strong interests for me. Joining RISC for a 3-year period is undeniably an opportunity to contribute even more effectively. I hope to bring my vision of what international exchanges can be, while remaining modest, as joining such an experienced group of people is also an opportunity for me to enrich myself with the vision of my colleagues and expand my network.

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 leading a group 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, played a leading role in TDAQ development in PANDA experiment (2007-2017, the overall readout for Belle II experiment (Belle2link) from 2008 to 2018, the readout and data reduction system for Belle II/PXD detector(ONSEN) from 2010 to 2019, the Concentration, preprocessing and Fanout (CPPF) for CMS L1 trigger system Phase I upgrade from 2013 to 2017, and RPC Backend Electronics and trigger primitives 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, 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.