

IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY ELECTION
FUSION TECHNOLOGY STANDING COMMITTEE ELECTION
For the Four-Year Term 1 January 2024 – 31 December 2027
(Vote for UP to FOUR)



MONICA GEHRIG (AF'19) I'm currently a Fusion Energy Sciences Postdoctoral Research Program Participant, since November 2022, working on thermal hydraulic modeling for tritium breeding blankets. I attended Missouri University of Science and Technology for both undergraduate and graduate work in nuclear engineering. For my graduate studies, I was supported by the Fusion Energy Division at Oak Ridge National Laboratory. My work initially focused on computational fluid dynamic modeling, first examining heat transfer enhancement geometries for water cooling in high heat flux applications and then later on with helium cooling for tritium breeding blanket applications. My work with helium cooling supported the construction and experimental design of the test sections used in the Blanket and Fuel Cycle Group's Helium Flow Loop Experiment. This work led to the bulk of my PhD dissertation which focused on heat transfer optimization of internal geometries in helium cooling systems. Upon graduating in the fall of 2022, I began work in the Blanket and Fuel Cycle Group in the Fusion Energy Division at ORNL with my current post-doctoral work. For my research, I examine the use of thermal hydraulic models for their applicability to tritium breeding blanket helium cooling channels and will continue to use these tools to study flow and thermal behavior in porous media to examine the flow of a sweep gas through a solid breeder material to understand tritium transport mechanisms. In this role, I also have been begun involvement in the national blanket program activities by participating in the EPRI-hosted Fuel Cycle and Blanket Workshop in May 2023 and am working on increasing our division's role in education and outreach by serving as a chairperson on the Fusion and Fission Energy Sciences Directorate Education and Outreach Committee. I am interested in community involvement and finding opportunities to both connect with people and connect people within the community together.

Statement: As both a member of the fusion community and a member of IEEE, I want to express my interest in participating on the Fusion Technology Standing Committee. With work based in the technology-side of fusion (particularly with studying breeding blanket heat transfer and thermal hydraulics), this organization is suited to my interest and growing acumen. I have been a member of IEEE since the earliest stages of my career in fusion, participating as a student in my first Symposium on Fusion Engineering in 2019. This was a formative experience in my career; I was pleased to have the opportunity to participate in a variety of eye-opening technical and non-technical discussions with members of this community. I continued my participation through the virtual SOFE meeting in 2021 and most recently in Oxford in 2023. Although I do not yet possess much experience with supporting the organization of conferences, I have colleagues and mentors at Oak Ridge National Laboratory, where I currently reside as a postdoctoral researcher, from whom I am keen to learn. This most recent SOFE in Oxford 2023 has shown me specifically that there is significant value in conference organization, especially having seen well-run valuable discussions and panels facilitated by members of this committee. I am eager to engage with this community by learning how to enable effective discussions and asking valuable questions which serve to highlight strengths while also challenging the community to produce solution-oriented answers.



TAKUYA GOTO (M'23) Dr. Takuya GOTO is a world-leading specialist in fusion reactor systems design. He has developed a super-powerful systems code for the helical fusion reactor. He has also been cooperating in the conceptual design studies on the tokamak and laser fusion reactors.

In 2008 he received a Doctor of Science, Department of Advanced Energy, Graduate School of Frontier Sciences (Nuclear Engineering), The University of Tokyo. In 2005 the Master of Science, Department of Advanced Energy, Graduate School of Frontier Sciences, The University of Tokyo. In 2003 Bachelor of Engineering, Department of Systems Innovation, Faculty of Engineering, The University of Tokyo.

From 2008-2010 he was Assistant Professor, Fusion and Advanced Technology System Division, Department of Large Helical Device Project, National Institute of Fusion Science. From 2010-2023 he was Assistant Professor, Fusion Systems Research Division, Department of Helical Plasma Research, National Institute for Fusion Science. He is the Present Director, Helical Fusion Co., Ltd. since 2021.

Statement: Recently many private start-up companies have been established and I feel that fusion development has entered a new phase toward social implementation. As a member of such a start-up company, I hope to stimulate a broader discussion with a view to the industrialization of fusion energy.



DIANA GRANDAS (M'23) Diana Grandas is a Fusion Energy Research Analyst IV in EPRI's Nuclear Sector. In this role, she supports EPRI's Fusion Energy Strategic Program in developing a portfolio of R&D projects intended to assist the global commercialization of fusion. Ms. Grandas also works with EPRI's Energy Systems and Climate Analysis group, serving as the project manager for EPRI's Inflation Reduction Act Interest Group and provides technical research support for EPRI's Exploring Climate Impacts in Utility Planning and Operations Interest Group. Prior to joining EPRI's Nuclear team in November 2022, Ms. Grandas worked in EPRI's Strategic Insights team within the Technology Innovation group, where she developed reports communicating key topics and insights from across the entire energy value chain. Prior research areas have included decarbonization targets and strategies, climate resilience, energy storage, emerging nuclear technologies, and thermal fleet flexibility and reliability. Ms. Grandas holds Bachelor of Arts degrees in Physics and Mathematics, with high honors in Physics, from Bowdoin College (2020). Ms. Grandas is currently a student at the University of North Carolina at Charlotte pursuing an M.S. in Applied Energy and Electromechanical Engineering. Ms. Grandas joined EPRI in 2020.

Statement: Working at EPRI (Electric Power Research Institute), an organization focused on applied research to advance safe, reliable, affordable, and clean energy for society, I understand that future owner-operator's needs must be considered as new energy technologies develop. In 1982, EPRI published the Utility Requirements for Fusion, emphasizing requirements related to economics, public perception, and reasonable licensing paths, which are still relevant today. I want to serve on the IEEE Fusion Technology Standing Committee to ensure future owner-operator requirements are considered as fusion energy continues to develop.

In my role at EPRI, I am responsible for developing a research portfolio that supports the commercialization of fusion energy. Since early 2022, I have managed EPRI's Fusion Forum webcasts, a bi-monthly series that discusses advancements in fusion and key research relevant to the commercialization of emerging energy technologies. In May 2023, I was the EPRI lead for the Fusion Fuel Cycles and Blankets workshop hosted in EPRI's office in Charlotte, North Carolina, informing the next steps for fusion fuel cycles and blanket technology development. My experiences developing EPRI's fusion program, crafting successful events, and continued engagement with the utility industry will allow me to be an effective member of the FTC.



MIKHAIL GRYAZNEVICH (M'23) is a founder of Tokamak Energy, the Chief Scientist and a member of the executive board. He is a leading global authority on tokamaks and has performed experiments on 16 different tokamak during his distinguished career.

After graduating with an Honours Diploma in Plasma Physics from the Leningrad University in his homeland, Mikhail earned a PhD in Plasma Physics and Nuclear Fusion from the USSR Academy of Science. In 1990, he joined the Culham Laboratory in Abingdon and has been responsible for leading experimental programmes, preparing and performing experiments, designing, constructing and operating tokamak systems and diagnostics, as well as supervising students and scientific and engineering personnel.

Mikhail is a Visiting Professor at Imperial College in London and an editorial board member for the Plasma Science & Technology Journal and the Open Plasma Physics Journal. He regularly lectures about the physics behind spherical tokamaks at universities and plasma physics schools across the world.

Statement: I am working in Fusion since 1975. I've started as an engineer managing design of PF and feedback systems and assembly of the TUMAN-3 tokamak. Then I became an experimental physicist and supervised and performed experiments on 21 tokamaks and stellarators, including JET, MAST, START, ST25, ST25HTS, ST40 (UK), AUG (Germany), DIII-D, NSTX, HIDRA (USA), JT-60U, TST-2, (Japan), VEST (Korea), T-10, TUMAN-3 (Russia), COMPASS, GOLEM (Czech Rep), ETE, TCABR (Brazil), STOR-2M (Canada), TJ-2 (Spain). For the last three decades I am working on spherical tokamaks, performing experiments, numerical simulations and also working on engineering aspects of the ST path to Fusion. I've pioneered application of **HTS** in tokamak magnets, installing HTS PF coils on GOLEM tokamak (Prague) in 2011 and then playing a leading role in construction and operations of the first **full-HTS tokamak ST25-HTS**. The latest my project is a compact but high field (3T) spherical tokamak **ST40** that recently achieved Fusion relevant temperatures ~ 10 keV.

Engineering and experimental physics are strongly linked in my work with the ambitious goal of advancing the path to the Fusion reactor. My interests are also in ELM mitigation using RMPs, advanced divertors (e.g. liquid Li divertor), first wall materials and tokamak wall conditioning, feedback control.

I hope that I will be able to contribute to the work of the IEEE Fusion Technology Committee.



ANDREI KHODAK (M'18) M.Sc. degree in engineering physics and the Ph.D. degree in physics and mathematics from St. Petersburg State Polytechnical University, Saint Petersburg, Russia, in 1988 and 1991, respectively.

I held various research and engineering positions, related to fluid mechanics and heat transfer.

I have been with the Princeton Plasma Physics Laboratory, Princeton, NJ, USA, since 2010, where I am involved in multi-physics modeling, including plasma simulation, magneto-hydrodynamics, computational fluid dynamics, turbulence modeling, and heat and mass transfer.

Below is the list of some of the fusion related projects I worked on

- Project lead for NSTX high heat flux plasma facing components. Analysis of NSTX Passive Plates and Center Stack Casing.
- Performed coupled structural, thermal, electrical and magnetic field analysis of the coils for new experimental nuclear fusion devices, including ITER CS and TF insert coils
- Magneto Hydro Dynamics flow simulations for blanket and divertor flows of future fusion devices
- Two-phase reacting flow simulations for tritium breeding blankets
- High collisional plasma simulations for nano-particle production and MHD generators.
- Conjugated heat transfer, computational fluid dynamics and non-linear structural analysis for ITER diagnostics first wall
- Designed and analyzed high heat load components for DIII-D neutral beams

Statement: Serving on the FTC will allow me to help in advancement of fusion technology development through facilitating of the exchange of information.



HANNI LUX (AF'23) Dr Hanni Lux (CPhys) holds a PhD in theoretical astrophysics from the University of Zurich in Switzerland. Following a postdoc position at the University of Nottingham mainly working on the dynamics of galactic streams in the Milky Way, she joined the field of fusion and the UK Atomic Energy Authority (UKAEA) in 2013. At UKAEA she has held various roles starting from systems modelling the European demonstration fusion reactor (EU-DEMO), managing the UKAEA owned PROCESS systems code, working in whole plant integration for the UK national fusion programme STEP to leading the cost modelling team of the STEP programme that amongst others aspects assures a cost optimised STEP prototype plant design. She has (co-)authored papers on impurity radiation in fusion power plants, impact of uncertainties on power plant design as well as costs and commercialisation of fusion power plants. She has lectured on various occasions on

the potential role of fusion in the energy market.

Statement: I strongly believe that fusion is a critical technology with the opportunity to successfully contribute to the long-term global carbon goals to constrain global warming. To achieve that it is critical to pursue multiple different avenues to fusion power plants, learn from each other as well as other industries and critically evaluate each other's progress. Being a member of the fusion technology standing committee would enable me to support the international fusion community in the endeavor to driving fusion robustly forward as a carbon-free energy technology.



ANURAG MAAN (M'19) Anurag Maan is a Staff Research Physicist, in the Tokamak Experimental Sciences group at the Princeton Plasma Physics Laboratory (PPPL). He received his PhD in Nuclear Engineering from the University of Tennessee, Knoxville in 2020. Prior to that he got his Masters of Technology in Nuclear Engineering from the Indian Institute of Technology Kanpur (2014) and a Bachelors of Technology in Electrical Engineering from Walchand College of Engineering Sangli (2011), both in India. His graduate research work was about exploring how lithium plasma facing components would evolve and affect plasma performance in the Lithium Tokamak Experiment-beta (LTX-beta) at PPPL. After graduating he continued his work on LTX-beta as

an Associate Research Physicist (post-doc) at PPPL from 2020-2022. As a post-doc his duties included maintaining and operating a significant fraction of diagnostics and operational sub-systems on LTX-beta, in addition to exploring new physics behind the unique low density, high temperature edge of a tokamak with lithium walls. As a Staff Physicist at PPPL, since 2023, in addition to contributing to operations of LTX-beta he has been involved in several collaborations. The collaborations include, but are not limited to, lithium operations on NSTX-U; surface science experiments at PPPL to understand material properties of lithium under plasma exposure and vacuum conditions; disruption mitigation using electromagnetic particle injection; scrape-off layer gyrokinetic simulations of hot edges in a lithium walled tokamak. As a graduate student Anurag was inducted into the Alpha Nu Sigma honors society in 2015. His work on characterizing lithium on the walls of LTX-beta, pre and post plasma exposure received an honorable mention in the best student paper competition held during SOFE-2019. His work on fuel recycling characterization in LTX-beta discharges has been recently reported in two invited talks at the Asia-Pacific Conference on Plasma Physics Division of Plasma Physics (AAPPS-DPP) meeting in 2022 and the American Physical Society Division of Plasma Physics (APS-DPP) annual meeting 2022. As an early career researcher Anurag has already mentored 7 summer interns and is actively mentoring two graduate students, one of whom is expected to graduate this year.

Statement: As fusion technology receives more interest from both private enterprises and government entities, the key physics and engineering challenges required to make commercial fusion viable will come into sharp focus. To tackle these challenges in a time span to be useful to humanity in battling climate change will not only require money, but trained personnel and astute policy choices. I believe the IEEE NPSS FTC is an excellent mix of physicists, engineers and academics, and therefore, is well positioned to contribute to policy dialogue and advise on personnel development.



RICHARD PEARSON (M'23) Dr. Richard Pearson holds a PhD in Fusion Engineering and Innovation from The Open University (UK). In 2019, he co-founded Kyoto Fusioneering, a Japanese fusion technology start-up, where he currently serves as the Chief Innovator and UK Director. Throughout his career, Richard has focused his research on fusion technology innovation, strategy, policy, and the conceptual development of novel tritium breeding blanket technology. He has actively contributed articles to renowned fusion journals and frequently speaks at international events. Richard holds visiting senior research associate positions at Kyoto University (Japan) and the University of Bristol (UK). Currently, he is serving as the Guest Editor for the Journal of Fusion Energy, collating articles for a special issue on the emergence of private fusion enterprises.

Statement: I am extremely interested in becoming a part of the Fusion Technology committee as a member of the technology assessment team. With my background in fusion engineering and innovation, I am committed to advancing the field and contributing to the realization of fusion as a viable source of energy on a time horizon that matters. My expertise lies in fusion technology innovation, strategy, and policy, as well as the conceptual development of novel tritium breeding blanket technology as well as fusion fuel supply and use. I am also developing my knowledge in the areas of tritium technology, materials, power plant design engineering and heating and current drive technology. With a comprehensive understanding of the fusion innovation ecosystem, including its evolving landscape of public and private players, and specifically both the technical and non-technical challenges on the path to realizing commercial fusion, I approach the complex problems we face in fusion energy with a systems-thinking mindset. I have actively participated in major fusion journals, international events, and prestigious institutions as a visiting senior research associate. By joining the committee, I aim to collaborate with esteemed professionals, leveraging my technical knowledge and systems-thinking approach to drive progress in fusion technology assessment. Joining the committee will help propel my ambition to continue to become a thought leader in the fusion industry, by compounding my experience to date and fostering growth. I believe my passion, research experience, and dedication make me an ideal candidate for this esteemed committee.



JONATHAN SHIMWELL (M'23) Jonathan Shimwell holds a Lead Scientist position at First Light Fusion. Primarily a neutronics expert with focus on developing automated open source workflows that integrate into wider reactor design studies. Experience in fusion research at both government and start-up level including EU-DEMO, STEP, UKAEA, CFS, KIT and CEA. Previous career as a physics teacher and continues to teach neutronics at UK universities and the NEA databank. A full stack analysis working on: nuclear data processing, particle transport code development, parametric geometry creation, conversion of models, automated testing with CI/CD, user interface creation, containerised software environment creation, cloud computing / web deployment and dissemination. A contributor and creator in the open source neutronics community. Creating software packages such as Paramak, neutronics-workshop and a variety of web apps on xsplot.com. A contributor to popular open source neutronics codes including OpenMC and DAGMC.

Statement: Today we are witnessing an extraordinary growth in fusion energy research around the world. The complexity of the challenge and urgency of the energy crisis continues to attract new members into the field of fusion energy. At the same time the growing investment in fusion is empowering development at unprecedented rates. While the progress that individual organizations are making is impressive, it is the collective progress of the community through collaborations and coordinated effort that I find particularly inspiring. Companies are teaming up to solve common challenges and researchers are collaborating on ideas that originated outside of their organizational boundaries. I feel that well aligned collaboration can reduce the time to fusion and accelerate the rate of progress. SOFE is one of the few events where these conversations get started and ideas blossom. This is where I feel I can help by bridging gaps between national and private, inertial, and magnetic and facilitating dialogue between people. In the growing fusion landscape, it is increasingly important to bring a broad range of companies, national labs, intergovernmental organizations and increasingly regulators together to get the widest pool of talent and viewpoints on the remaining grand challenges in fusion. Ultimately when commercially viable fusion is achieved it will be at least partly due to standing on the collective shoulders of the community both past and present.



LEOPOLDO SOTO-NORAMBUENA (M'22) Chilean citizen, received the B.S., M.S. and Ph.D. degrees in Physics in 1989, 1990 and 1993, respectively from the Pontificia Universidad Católica de Chile, Santiago. He joined to the Chilean Nuclear Energy Commission in 1993 where he founded the Plasma Physics and Nuclear Fusion Laboratory. His research interests include dense transient plasmas, pulsed power, especially Z-pinch, plasma focus, nuclear fusion mechanisms, capillary discharges, pulsed power miniature devices, effects of pulsed radiation on materials and on biological objects, pulsed plasma thrusters, transient plasma diagnostics, holography, interferometry, and optical refractive diagnostics. Main contributions in the scaling rules for miniaturization of plasma focus devices, extending the research up to devices operating inclusive lower than one joule. Over 140 articles published.

In 1999, he was awarded with a Presidential Chair in Science by the President of Chile. In 2007, he was elected as a Fellow of the Institute of Physics, UK. Nowadays, he is the Director of the Research Center on the Intersections in Plasma Physics, Matter and Complexity, P2mc, of the Nuclear Chilean Energy Commission. He is associate full professor of the Universidad Andres Bello, Physical Sciences Department, Chile. He was the President of the Chilean Physical Society for 2 periods, 2003 to 2008 and currently his Secretary General for the period 2017 to 2022. Since June 2017, he is scientific advisory of the Commission of Challenges of the Future, Science, Technology and Innovation of the Senate of the Republic of Chile. For outreach, 2010 and 2015, in collaboration with well-known Chilean actors, he produced 5 videos: what is plasma; what is pulsed power; what is nuclear fusion; pulsed radiation for life and health, pulsed power and plasmas for nuclear fusion and advanced materials.

Statement: My interest to join to the nuclear fusion committee of the Nuclear and Plasma Science Society is to promote the research of plasma physics related to nuclear fusion in small devices. According to my experience some small pulsed plasma experiments reproduce a scenario to study basic phenomena related to nuclear fusion, as instabilities, plasma shocks, filaments, plasma jets. Also, small plasma devices are useful to study plasma facing materials for first wall of future nuclear fusion reactors. Moreover, I want promote a relationship between the community working in large laboratories with those working in small laboratories, particularly between senior and young scientist and training of students. In addition, I want promote outreach activities to general public, authorities and leaders of opinion.

IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY ELECTION
NUCLEAR MEDICAL AND IMAGING SCIENCES COUNCIL ELECTION
For a Three-Year Term 1 January 2024 – 31 December 2026
(Vote for UP to 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.

GERARD ARIÑO-ESTRADA (M'16) is an Assistant Research Professor in the Department of Biomedical Engineering at the University of California Davis (UCD). Dr. Ariño-Estrada received his bachelor's degree, master's and PhD in physics from the Universitat Autònoma de Barcelona (UAB) in Barcelona (Spain). During his PhD, Dr. Ariño-Estrada worked in the Institut de Física d'Altes Energies (institute for high energy physics, IFAE) in Barcelona on cadmium telluride detectors for nuclear medicine applications. Dr. Ariño-Estrada continued his work as a postdoctoral scientist at the Deutsches Elektronen-Synchrotron (DESY) in Hamburg (Germany), where he contributed to the development of detectors for serial femtosecond crystallography to be deployed in the European X-ray Free Electron Laser (European XFEL). Dr. Ariño-Estrada continued his career as a postdoctoral scholar in the Department of Biomedical Engineering at UCD under the supervision of Dr. Simon Cherry, where he later became a junior PI and started leading his own research team.

Dr. Ariño-Estrada's research leverages the use high-Z semiconductor thallium bromide (TlBr) detectors and Cherenkov-based detectors for time-of-flight positron emission tomography (TOF-PET) and proton range verification in proton therapy. Dr. Ariño-Estrada is first author and co-author in 9 and 15 peer-reviewed manuscripts, respectively, principal investigator of 2 R01 awards, an R21 Trailblazer, and an R03 award from the National Institutes of Health (NIH) and has completed over 60 reviews for several journals such as Physics in Medicine and Biology and the European Journal of Nuclear Medicine and Molecular Imaging, and abstract reviewer for the Nuclear Science Symposium (NSS)/ Medical Imaging Conference (MIC). He has also served twice as study section member for NIH.

Statement: I was part of the volunteer crew staff in the IEEE NSS/MIC 2011 held in Valencia as a master student and I have been attending the conference yearly since 2016. Given my background in high energy physics, detector instrumentation, and molecular imaging, I can contribute to the scientific programs of both the NSS and MIC, as well as the Room Temperature Solid State Detector Workshop (RTSD). I believe my interdisciplinary profile can be widely useful to the Nuclear Medical and Imaging Sciences Council (NMISC). If elected to the NMISC I will try to promote diversity and equity within IEEE Nuclear and Plasma Science Society (NPSS) activities. I will encourage early-career scientists to engage in committees and conferences in the scope of the NPSS, and will contribute to keep improving the NSS/MIC conference logistically and scientifically, while preserving its standards of excellence. I am also looking forward to working with the editorial boards of the Transactions on Nuclear Science (TNS) and Transactions on Radiation and Plasma Medical Sciences (TRPMS) and provide my input related to new publishing trends and peer review process.

JUNWEI DU (GSM'09-M'11-SM'15) is a Project Scientist in the Department of Biomedical Engineering at the University of California, Davis (UC Davis). He obtained his B.S. in Applied Physics in June 2005 and Ph.D. in Electronic Science and Technology in June 2010 from the University of Science and Technology of China (USTC). Following a brief postdoctoral period at USTC, he joined Dr. Simon Cherry's group at UC Davis in March 2011. Dr. Du's primary research focus lies in the development of high-resolution and high-sensitivity Positron Emission Tomography (PET) for biomedical imaging. His research involves the development of PET systems, PET detectors, readout electronics, and related areas. Dr. Du has been involved in the development of several PET scanners, including those for small-animal imaging 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). Dr. Du has authored and co-authored over 50+ peer-reviewed publications and more than 70 presentations. He is an IEEE Senior Member.

Statement: I started my career in the field of biomedical imaging in the year 2005. Since 2009, I have contributed to the IEEE Nuclear Science and Molecular Imaging community by consistently publishing my work on IEEE Transaction on Nuclear Medicine and IEEE Transaction on Plasma and Medical Science and presenting my work at the IEEE Nuclear Science Symposium and Medical Imaging Conference (50+ presentations), and reviewing papers and abstracts every year. If elected, creating more opportunities for young scientists and attracting more young scientists to continue working in our field will be my top topics.

CHRISTOPH LERCHE (M'17) is Head of the PET Physics Group at the Institute of Neuroscience and Medicine-4 (Medical Imaging Physics) of the Forschungszentrum Juelich GmbH, Germany. He received his Diploma degree in Physics from the Friedrich-Alexander-University Erlangen-Nürnberg, Germany in 2001. He completed his Ph.D. in Experimental Atomic, Molecular and Particle Physics at the University of Valencia, Spain in 2006, working in the field of nuclear medical imaging instrumentation. He then worked as a Postdoctoral scientist at the Polytechnic University of Valencia (Spain), University of Valencia (Spain), and as senior scientist at Philips Research Eindhoven (Netherlands). In 2014, he moved to the Institute of Neuroscience and Medicine 4 - Medical Imaging Physics - and began working in the field of multimodal Neuroimaging. Their work focuses on development of instrumentation, methodology, and applications for multimodality and multiparametric imaging of the healthy and diseased human brain using Positron Emission Tomography, Magnetic Resonance Imaging at high and ultra-high fields, Electroencephalography, and combinations of these modalities. Concurrent PET/MR and PET/MR/EEG imaging of the living human brain is the primary focus of their research. Christoph Lerche is the first/last author of 20 journal articles, co-author of 11 patents and 2 patent applications and more than 110 other journal articles, book chapter, editions, and conference contributions.

Statement: As an IEEE, IEEE NPSS, and IEEE Brain Community member and research scientist, I have participated regularly in the Nuclear Science Symposium and Medical Imaging Conference since 2002. I have been elected member of the NMISC from January 2018 to December 2020. I have also been member of the Bruce Hasegawa Young Investigator Medical Imaging Science Award Committee in 2019 and member of the Medical Imaging Technical Achievement Award committee in the years 2021 and 2022. I have been a referee for IEEE TNS since 2007, for IEEE TRMPS since 2017, and for IEEE TMI since 2020. Given the active participation over the last 21 years at MIC conferences, I believe that I can make a unique and significant contribution to the Nuclear Medical and Imaging Sciences Council (NMISC). If elected to the NMISC, I will try to engage scientists of all ages and sexes to participate in IEEE medical imaging activities. I will try to promote further scientific and educational activities, to ensure quality NSS-MIC joint sessions, and to help select dynamic plenary speakers. I will also provide input to the editorial boards of TNS and TMI, encouraging them to speed up the review process wherever possible. I would be happy to help manage and promote Nuclear Medical and Imaging Sciences activities as a NMISC council member.

YIHUAN LU (GSM'14-M'17) My name is Yihuan Lu. I am a Principal Scientist at Shanghai United Imaging Healthcare. I completed my Ph.D. in Electrical Engineering at Stony Brook University in 2015, working in the field of Single Photon Emission Computed Tomography and X-ray breast Tomosynthesis. I then worked as Postdoctoral Associate at the Yale PET Center, doing PET physics related research under the supervision of Drs. Chi Liu and Richard E. Carson. In 2017, I was promoted to a faculty member as an Associate Research Scientist and started independent research. In 2021, I was promoted to Research Scientist. My work focuses on the development of novel motion correction algorithms for Positron Emission Tomography (PET) imaging as well as deep learning-based applications in PET. I am the first (or senior) author of 18 and co-author of 17 journal articles. As a PI, I was awarded an R03 and R21 in 2019 and 202, respectively. In Sep. 2021, I joined United Imaging Healthcare to keep developing novel algorithms for PET imaging.

Statement: As an IEEE member and a scientist, I have participated annually in the Nuclear Science Symposium and Medical Imaging Conference since 2012. I have contributed 34 MIC conference abstracts as first/senior author as well as 15 abstracts as a co-author since then. I received the IEEE Bruce Hasegawa Young Investigator Medical Imaging Science Award in 2020. Given the active participation and strong commitment that I have demonstrated over the last 10 years at the MIC conferences, I believe I can make a unique and significant contribution to the Nuclear Medical and Imaging Sciences Council (NMISC). If elected to the NMISC, I will try to engage scientists of all ages and sexes to participate in IEEE medical imaging activities. I will try to promote scientific and educational activities, to ensure the high-quality MIC and NSS-MIC joint sessions, as well as to help select distinguished plenary speakers. I will also provide input to the editorial boards of TNS and TMI, encouraging them to provide speedy high-quality reviews. I will be happy to help to promote Nuclear Medical and Imaging Sciences activities as a NMISC council member.

AKRAM MOHAMMADI (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 20 of them as the first author. She has received seven 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 nine years, I have presented more than 37 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 esteemed academic journals such as Physics in Medicine and Biology (PMB), IEEE Transactions on Radiation and Plasma Medical Sciences (TRPMS), and Journal of Instrumentation (JINST). 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.

GRETA S. P. MOK (S'04-AM'10-M'12-SM'14) Born in Guangzhou and raised in Macau, Prof. Greta Mok graduated in Biomedical Imaging and Radiological Sciences from National Yang-Ming University, Taiwan in 2003, and received her Ph. D. in 2009 in Environmental Health Sciences (Radiation Health Sciences) from Johns Hopkins University, USA. From 2009-2010 she was a Research Assistant Professor at Department of Radiology, the Chinese University of Hong Kong. She later returned to her hometown and joined University of Macau, currently serves as an Associate Professor in Department of Electrical and Computer Engineering. She was a visiting scholar in Department of Radiology, University of Massachusetts Medical School, USA from 2017-2018. Prof. Mok's research interests include physics and engineering development for various medical imaging modalities, particularly SPECT/PET/CT/MRI. She developed practical computational tools for targeted radionuclide therapy dosimetry, and is actively leading AI-based research in nuclear medicine. She is the recipient of Tracy Lynn Faber Award at the 2018 Society of Nuclear Medicine and Molecular Imaging. She published >90 SCI papers and is the principle investigator of 14 funded research projects. She is an IEEE senior member, associate editor in European Journal of Nuclear Medicine and Molecular Imaging (EJNMMI) physics and in the editorial board of EJNMMI and Quantitative Imaging in Medicine and Surgery. She is the director of Biomedical Imaging Laboratory (BIG) and the founding president of Macao Society of Nuclear Medicine and Molecular Imaging.

Statement: Committed to nuclear medicine imaging physics for 2 decades, the IEEE Nuclear Science and Medical Imaging community has been giving me a lot of inspirations in work and life. It would be my privilege to give back and serve the community in this post-pandemic era. I have been a regular for the IEEE Nuclear Science Symposium and Medical Imaging Conference since 2004, as a PhD student in the beginning and now as a mentor. Through the years, I have had a lot of joy in presenting works from my groups and also attending scientific sessions and workshops in this meeting. If I could have the honor to be elected, science-wise I would be promoting more research in dosimetry, cross-disciplinary and other imaging modalities (e.g. US, MRI) in the MIC scientific program. Culture-wise I would love to promote more diversity and inclusivity in the community, encourage scholars from underrepresented groups (e.g., language-, continent-, gender-, racial-, ethnic- minority and scholars with special needs) to join NMISC and meetings. It is also important for me to introduce nuclear and imaging science to young students, fostering more young talents to join and grow the community. While physical meetings are irreplaceable, it would be also nice to use the well-adapted virtual platforms for webinars and workshops in between.

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. She currently leads two studies on T cell imaging, using two novel tracers of ⁸⁹Zr-Df-Cremirlimab and ¹⁸F-AraG, and she is the PI of an NIH-funded project on utilization of the lutetium background radiation for quantitative total-body PET imaging. She has experience in Monte-Carlo simulations, system characterization, image reconstruction, image analysis, quantification, and kinetic modeling of total-body PET systems. Dr. Omidvari 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 18 peer-reviewed articles with more than 450 citations.

Statement: With more than 10 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.

MAGDALENA RAFECAS (S'99-AM'01-M'03-SM'21) is a full professor at the University of Lübeck and Head of the "Nuclear Imaging" group. She is IEEE Senior Member and also a member of IEEE Women in Engineering. Magdalena Rafecas studied physics at the Universitat de Valencia, Spain, and has been working in Medical Imaging since 1997. She was awarded a EU-Fellowship to do her PhD research in Dr. Sibylle Ziegler's lab at the Nuclear Medicine Department, Technische Universität München (TUM), Germany, and received the European Doctorate in Physics from the Universitat de Valencia in 2001. She also worked at the TUM as a postdoctoral fellow and then moved to the Instituto de Física Corpuscular in Valencia. She was later appointed as a tenured Assistant Professor (Universidad de Valencia). She has also worked in Prof. Bern Pichler's Preclinical Imaging Lab (University Hospital Tübingen, Germany). Magdalena Rafecas has been the principal investigator of many research grants and has participated in international projects and European training networks. Her expertise includes modeling of physical processes, Monte Carlo simulations, image reconstruction, as well as novel prototypes for preclinical and clinical imaging, and particle-therapy monitoring. She has been involved in the construction of several devices for PET, Compton imaging and Prompt Gamma Timing.

Statement: I feel committed to the Nuclear Medical and Imaging Sciences community. First as a IEEE Student Member, I have regularly presented my work at the IEEE NSS MIC since the late nineties. At this conference, I have always enjoyed the experience of sharing knowledge, learning from experts, discovering talented young researchers, and interacting with my peers. My contribution to this annual event has also included serving as a topic advisor, reviewer, and session chair for several years, as well as a jury member of an IEEE MIC Poster Award, and a Bruce Hasegawa Young Investigator Medical Imaging Science Award. Reviewing for IEEE TMI, IEEE TNS, and IEEE TRPMS, and my current service on the latter's Steering Committee further reflect my commitment to the NMISC mission. I am an engaged lecturer and supervisor and, as a female foreign professor, also aware of the importance of diversity. Throughout my career, the NMISC has provided me with a framework for scientific and professional development. If elected, it will be an honor to reciprocate my appreciation by helping to promote educational activities and mentoring programs, supporting the careers of young professionals, and maintaining the high quality of the NSS MIC without losing sight of the environmental impact.

AHMADREZA REZAEI (S'11-GSM'12-M'16) is a senior post-doctoral researcher in the advanced reconstruction group in the Department of Imaging and Pathology at KU Leuven, Belgium. His work focuses specifically on image reconstruction techniques in emission/transmission tomography. Ahmadreza Rezaei was awarded his PhD degree from the department of biomedical sciences, KU Leuven, following the defense of his thesis entitled "Statistical Methods for Attenuation Correction in Time of Flight Positron Emission Tomography (TOF-PET)". It was found during his studies that when time of flight information is available, activity and attenuation images can be reconstructed from the emission measurements which previously was not possible with conventional non-TOF PET scanners. Results of his graduate studies have been shortlisted and awarded by his peers at the NSS/MIC conference as well as in top-ranked journals in the field. For his contributions to "time-of-flight PET image reconstruction and system calibration" he was awarded the prestigious 2019 Bruce Hasegawa Young Investigator Award which is given annually to a young individual in recognition of significant and innovative technical contributions to the field of medical imaging science. In his personal time, he enjoys spending time with family and friends as well as playing traditional Persian music.

Statement: With a background in Biomedical Engineering, I joined the advanced reconstruction group of Prof. Johan Nuyts back in 2011. The nice environment and the exceptional collaborations with experts in the field and with partners in industry motivated me to stay longer in the team and to pursue a possible career at KU Leuven. Over the years, the NSSMIC has always been the platform for the dissemination of our works and findings. For my contributions, I have been a recipient of the MIC travel grants, during my graduate years, which further encouraged my involvement and participation. In addition to serving as the session chair for oral/poster sessions of the MIC, I was recently asked to serve in the NMISC Bruce Hasegawa young investigator award committee. I am an active reviewer in my field of expertise and have provided feedback for standard periodicals as well as conferences such as the Fully3D, which I also recently served as an organizing committee member. Having the chance to influence the future perspectives of the research fields I am involved in, to pass on and improve upon the educational contents which has been generously provided by my peers, to engage and motivate young researchers and to give back to the academic community motivates me to volunteer as a member of the Nuclear Medical and Imaging Sciences Council.

KUANGYU SHI (M'19) is the Chief Medical Physicist, Associate Professor and Head of the Lab for Artificial Intelligence and Translational Theranostics at the Department of Nuclear Medicine, University of Bern, Switzerland. Additionally, he is a senior scientist at the Chair for Computer-aided Medical Procedure, School of Computation, Information & Technology at the Technical University of Munich, Germany. He did his Master and PhD at Max-Planck Institute for Informatics (2003-2008), Germany. Then he moved to Dept. Nuclear Medicine, Technical University of Munich for postdoctoral research and worked as subgroup leader from 2012 to 2018. On May 2018 he completed habilitation at Dept. Informatics, Technical University of Munich. His research focuses on developing artificial intelligence and computational modeling methods for nuclear medicine imaging and therapy and interpreting the results to the underlying pathophysiology by designing corresponding in vivo and ex vivo experiments. His work has been recognized with the young investigator award of the SNMMI and the Roger Perez Award of EANM. He is currently a member of the physics committee of EANM, ICRP Task Group 36, and serves as an associate editor or member of the editorial board of EJNMMI Physics, Eur J Nucl Med Mol Imaging, EJNMMI Research, and Nuklearmedizin.

Statement: I have over 15 years of experience working in the field of nuclear medicine and informatics, which has allowed me to become deeply integrated into the IEEE NPSS community. My research focuses on the development of computational methods including machine learning, pharmacokinetic analysis, and systems biological simulations; the advancement of instrumentation including on-chip PET and intravital theranostic imaging systems; and the optimization of medical physics practices in nuclear medicine imaging and therapy. These research activities closely align with the interests and endeavors of the NMISC committee. My group and I have consistently presented our work at the IEEE Nuclear Science Symposium and Medical Imaging Conferences. In addition to my research contributions, I have actively participated in the organization of workshops at the IEEE NSS&MIC conferences for the past three years, including an upcoming workshop scheduled for this year. Moreover, we have dedicated efforts to create public datasets through organizing open challenges such as ultra-low-dose PET imaging. To summarize, my extensive experience, active participation in research and conference organization, and dedication to the community make me prepared for the contributions to the activities of NMISC committee.

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 17 patents (issued) and more than 70 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 (M'23) is a research programmer in Prof. Arman Rahmim's lab (Qurit lab) in the department of Integrative Oncology, BC Cancer research institute, Vancouver, Canada. She received her PhD from the School of Electrical and Computer Engineering, University of Tehran, Iran. Her main research interests involve the automated segmentation and quantification of tumors on FDG PET/CT imaging in lymphoma head and neck and cervical cancer. In this regard, she works on the development and implementation of artificial intelligence (AI) techniques for automated segmentation and quantification of tumor burden on PET/CT scans as well as the investigation of new quantitative features for prognostication in different cancer types.

Statement: In the past three years, I have been an active participant in prestigious conferences such as IEEE NSS/MIC, SNMMI, and MICCAI, where I have showcased my dedication to leveraging artificial intelligence and data analysis for the advancement of diagnostic, therapeutic, and investigational applications in nuclear medicine, particularly in the domain of molecular imaging.

With a rich background in the medical imaging field, I bring 16 years of experience from working in research centers as both a team member and a team lead. Moreover, my role as an assistant professor has allowed me to mentor numerous PhD and master's students, nurturing their growth and passion in the biomedical engineering field. Additionally, I have had the honor of moderating national and international conferences within my home country, further expanding my experiences.

If elected as a NMISC member, my primary objectives revolve around four key areas. Firstly, I aim to bolster the society visibility among physicists, engineers, and data scientists, ensuring that our valuable work gains recognition from diverse disciplines. Secondly, I will ardently advocate for the society significance and promote its interests among physicians and medical institutions, fostering fruitful collaborations. Thirdly, I am committed to nurturing strong relationships with other societies and councils, fostering a network that will amplify our collective impact. Lastly, I will dedicate my efforts to curating a diverse range of engaging scientific and educational presentations and activities, specifically tailored to empower and inspire young researchers and students. I believe we can shape a dynamic future for our society and drive advancements in the field of nuclear medicine.

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

**Member-at-Large to the PAST ExCom
For the Four-Year Term 1 January 2024 – 31 December 2027
(Vote for ONE)**

JOHN BYRD (M'09) is presently a Senior Scientist and Director of the Accelerator Systems Division at the Advanced Photon Source and head of the Argonne Accelerator Institute at Argonne National Laboratory. Prior to that he spent 26 years at Berkeley Lab where he was program head of the Center for Beam Physics in the Accelerator Technology and Applied Physics Division. He received his Ph.D. in accelerator physics from Cornell University in 1991. During his three decades working with accelerators, he has been involved in the design, commissioning and operation of many accelerators including the ALS, APS, the PEP-II B Factory, LHC, LCLS, BEPC-II, CESR, and Fermi@Elettra. He also has a deep commitment to teaching and he was awarded the USPAS Iron Man Prize in 2016 for teaching far too often. John has been a Fellow of the APS-DPB since 2012.

Statement: I love working on accelerators and working with the people who design, build, operate, and study accelerators and beams and I have dedicated my career to advancing accelerator science and technology. Our community builds machines supporting diverse scientific missions ranging from exploring the origins of the universe to cures for Covid-19. One of the core missions of the IEEE PAST is to communicate the excitement and diversity of our field to the public and stakeholders. As an IEEE PAST Member-at-Large, I will work to support that mission, as well as promoting education in accelerator science and technology and enhancing the professional standing of its members and our field in general.

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 30 storage rings at 24 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.

IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY
PULSED POWER SCIENCE AND TECHNOLOGY TECHNICAL COMMITTEE ELECTION
For a Four-Year Term 1 January 2024 – 31 December 2027
(Vote for UP to FOUR)

SIMON BLAND (M'20) received an MSci degree in Physics from Imperial College London in 1997, and went on to study for a PhD in Plasma Physics at Imperial's MAGPIE pulsed power facility. Following his PhD Simon continued to work at Imperial as a post-doc before being promoted to a member of staff.

Simon's research is predominantly into the high energy density physics, using mega-ampere currents to create extreme temperatures, densities and pressures. His early research was on the implosion of wire array z-pinches, which enabled the X-ray production from these to be precisely shaped for ICF. Simon also helped develop methods to use plasma ablating from the wires in a z-pinch to produce scaled astrophysical experiments. This research area has rapidly grown, with present experiments exploring magnetic reconnection on the Z accelerator.

Over the last decade Simon has led development of a new 'cutting edge' brick based pulsed power facility at Imperial and with colleagues from Technion has established several methods of creating high pressure/density conditions in table top sized experiments. In order to better study these techniques his team have coupled pulsed power drivers to the diagnostic capabilities of synchrotrons. Collaborating with Pau University Simon has also pushed the creation of new, solid-state high voltage trigger generators enabling the replacement of 'traditional' PT55 based systems with far more powerful units each capable of firing multiple large gas switches.

Simon has co-authored more than 120 articles in journals including PRL, Scientific Reports, and Transactions of Power Electronics. With colleagues at Imperial, Simon is part of the NNSA Centre of Excellence in Pulsed Power Driven High Energy Density Science, and works on projects for DTRA, EPSRC and First Light Fusion. He has helped organize several conferences, including being a session chair and area coordinator for ICOPS, and sits on the PSAC committee through 2023.

Statement: My interest in pulsed power started relatively early, when looking for a university for my undergraduate degree I was shown round the physics department at Imperial College and saw their plans to build MAGPIE. The ability to do world class dense plasma physics experiments in a relatively small, cheap onsite facility made the university stand out, and I never quite left – joining the team several years later for my final year undergraduate project and PhD. A large part of my research has since involved maintaining and continually improving the pulse power systems built then – large Marx / water line constructions – and more recently modern LTD and fast Marx type systems alongside solid state based pulsers. Once you develop an interest in pulsed power, insulating oil will be part of your blood.

We are, though, a relatively small physics and engineering community – most other areas outnumber us by at least an order of magnitude. We face multiple challenges over the next few years, including funding of what is often seen as an unfashionable area of science; yet there are strategic and environmental needs that would all benefit from pulsed power expertise. More importantly there is a need to improve our pipelines to encourage students into the field as many of our older generations retire.

I have never forgotten my time as a student nor the support I received at a young post-doc attending Pulsed Power conferences – you will not find a friendlier group of people who are happy to give advice on projects and talk about where their research is going. I believe encouraging this is key to securing our future - both acting as a bridge to funding agencies and private industry, and for encouraging new researchers. I have been asked to stand for the PPST committee and gladly do so, hoping to help and build the community that supported me.

HENRY GAUS (S'17-GSM'18-M'19) received his master's and bachelor's degree in Electrical Engineering from Texas Tech University. His thesis research was titled "Armature performance in miniature flux compression generators" and his committee consisted of Dr. John Mankowski (chair) and Dr. Andreas Neuber (committee member). During his tenure at Texas Tech, Henry showed his leadership skills through being elected to President of the local Texas Tech IEEE student branch. He further showed his leadership skills during his graduate career by founding the first ever Nuclear & Plasma Sciences Society student branch chapter in the United States. He came to LANL after doing research for 2 years in the Pulsed Power laboratory located at Texas Tech University, and his time spent at the Pulsed Power Laboratory gave him the experience needed to flourish on the DC & Pulsed Power team at LANSCE. He has served as one of the leading engineers since his arrival at LANL in 2019. In early 2022, he was asked to serve as the Team Leader of the DC & Pulsed Power team, and has since led an efficacious rebuilding of the team. He has successfully managed the DC & Pulsed Power team the past year delivering two successful maintenance/upgrade cycles, improving the reliability of the DC & Pulsed Power systems. Henry has recently accepted the position of Deputy Group Leader of the AOT-RFE (accelerator operations & technology – radio frequency engineering) group.

Statement: I would like to express my interest in running to be a member of the IEEE Pulsed Power Science Technology committee. My work has been specifically in the Pulsed Power realm for my entire engineering career. I would love to serve on the committee to help promote pulsed power in all facets, and I believe that I could offer a unique perspective through the experience I've gained in my

academic and professional career, as I have been a part of the team working on a linear accelerator at Los Alamos National laboratory. 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 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.

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 13 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 and further into my career I'm finding more and more that now it's my turn to take on these responsibilities of teaching and instructing the next generation of pulse power engineers. As an engineer closing in on mid-career I am looking more and more at opportunities to serve our niche community in pulsed power. Since I have spent most of my career in fast paced smaller companies, I find that I have worked on most types of pulsed power archetypes and systems. Working at places like North Star Research allowed me to work on systems that went all over the world for a variety of customers and programs. Likewise, now at Leidos, I'm finding my world opened back up to deliver systems to support fascinating programs. One of my early mentors had a saying, "Pulsed power is a solution looking for a problem to solve". We are in exciting times, where finally pulsed power is finding problems to solve outside of the laboratory setting.

JOSHUA J. LECKBEE (S'00-M'04-SM'19) received the BS and MS degrees in electrical engineering from the University of Missouri. He is currently Manager of the Advanced Accelerator Physics department in the Pulse Power Science Center at Sandia National Laboratories where he has worked since 2004. His research interests include electron beam accelerator design, electron beam diodes, spark gap switch design, linear transformer drivers (LTD), and pulsed power system design and operation. He is the author or coauthor of over 50 conference and journal publications.

Joshua served on the NPSS Adcom representing the PPST community from 2020-2023. He served as a member of the PPST Committee from 2015-2018. He was technical co-chair of the 2019 IEEE Pulsed Power and Plasma Science Conference, guest editor for a special issue of the IEEE Transactions on Plasma Science, and served on the technical program organizing committee for several conferences.

Statement: I have learned a lot from my years of service in the PPST and NPSS Adcom committees and from helping organize the IEEE Pulsed Power Conference. Technical conferences and journal publications are the primary mechanisms for exchanging technical information with the broader community. As technology and the pulsed power community evolve, we must continually improve these important technical exchange mechanisms. If given the opportunity, I would like to help identify ways to improve the quality and impact of the Pulsed Power Conference to ensure it continues to be the premier venue for exchange on pulsed power technologies.

JOHANNA NEUBER (S'10-M'14) received her BSEE (2014) from the University of Texas at Austin, and her MSEE (2016) and PhD (2020) from Old Dominion University. Her graduate research at the Frank Reidy Center for Bioelectrics focused on non-thermal plasmas for sterilization and nanosecond pulsed electric fields for cardiac ablation and defibrillation. Since graduating, Johanna has worked for SARA Inc (Scientific Applications and Research Associates), where she designs, builds, and tests systems for various government customers. Her work includes compact pulsed power systems, from prime power to HPM source, particularly fully custom solid-state systems.

Statement: Thus far in my career, my research experience in pulsed power has spanned a variety of perspectives, from academics with a bioeffects focus to industry, with most of my current work in the defense and directed energy sector. Having recently transitioned from an academic setting to industry, I would like to continue encouraging collaboration and multidisciplinary efforts in the broader pulsed power community. IEEE has fostered my career and interest in pulsed power from my undergraduate days, and I am now in a position to give back. I have seen the results of the effort and dedication of the Pulsed Power Science and Technology Committee, and I am honored to be given the opportunity to contribute and serve as a member.

LAURENT PECASTAING (M'09-SM'16) I received the M.Sc and Ph.D. degrees from the Université de Pau et des Pays de l'Adour (UPPA), France, in 1998 and 2001, respectively. I worked as Lecturer from 2002. I received the "Habilitation à Diriger des Recherches" in electrical engineering in 2010 and I am currently a Professor in Pulsed Power with the UPPA since 2016. I am Director of SIAME laboratory (102 members including 29 people in the field of pulsed power). I am also Director of a joint research laboratory (SAGE) between the CEA (French Alternative Energies and Atomic Energy Commission) and the UPPA since 2016 (42 researchers). My current research interests include compact and repetitive pulsed power systems, high power microwave sources and high voltage electrical discharges in liquids and gases. I have (co)authored more than 200 research papers including 2 book chapters, 1 patent, 54 journal papers (from which 30 are published in IEEE journals), and 155 international conference contributions including invited talks. I served on many national and international committees and as expert for the European Commission in the field of FP7, H2020 and Horizon Europe projects. In the last years, I established research collaborations with other pulsed power and plasma groups, such as Loughborough University, Imperial College London, the Technical University of Eindhoven, the University of Wrocław, and the Chinese Academy of Sciences.

Statement: During my career I have accumulated extensive knowledge and expertise in the pulsed power physics and technology. I am a Senior Member of the IEEE. I was the Overseas Attendance Chair for the IEEE UK Pulsed Power Symposium, Loughborough, 2014 and the General Chair of the 8th Euro-Asian Pulsed Power Conference (EAPPC), organised jointly with the 23rd International Conference on High-Power Particle Beams (BEAMS) and the 17th International Conference on Megagauss Magnetic Field Generation and Related Topics in 2021 in Biarritz, France. I participate in the scientific presentation of IEEE conferences as chairman (e.g. IEEE Pulsed Power Conference). I was a member of the International Scientific Committee of various international conferences including EAPPC and IEEE PPC and a member of the reviewing committee of more than 20 international conferences including IEEE Energy Conversion Congress, IEEE PPC and IEEE International Symposium on Power Electronics for Distributed Generation Systems. I support IEEE journals by acting as a reviewer (i.e. IEEE Transactions on Electronic Devices, IEEE Transactions on Power Electronics, IEEE Transactions on Plasma Science, IEEE Antennas and Wireless Propagation Letters and IEEE Transactions on Dielectrics and Electrical Insulation). I trained young researchers (e.g. 16 PhD students) in the field of high pulsed power. Today, they have important positions in the largest French companies.

I believe that all these factors have prepared me to serve effectively as a member of the Pulsed Power Science and Technology Committee. If I will be elected, I hope to help in connecting European people and organizations in the field of pulsed power technology to the IEEE institution, to attend and organize IEEE pulsed power related events, to organize exchange and experience sharing seminars under the IEEE NPSS banner between companies, scientific centers and institutions working in the field of pulsed power technologies. I will also work towards attracting more students from Europe to apply for an IEEE membership, by organising regular meetings at various Universities across Europe.

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

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

JAMES PRAGER (M'14) received a Bachelor of Science in physics from Lehigh University (2001) and a Master of Science (2003) and Ph.D. (2008) in physics from the University of Washington. His graduate studies were at the Advanced Propulsion Laboratory with a focus on a high-power helicon plasma source for space propulsion applications, including the solid-state pulsed-power system. After graduation, he was a visiting lecturer and post-doc researcher at the University of Washington, where he studied the effect of magnetic nozzles on plasma flow and characterized the performance of the Micro-Pulsed Inductive Thruster (μ PIT). In 2010, James joined Eagle Harbor Technologies, Inc. (EHT) as a senior research scientist and founder, where he works on high-voltage, solid-state, repetitive-pulsed-power systems like magnet drivers, helicity injector power systems for fusion science, inductive voltage adders, and high-voltage nanosecond pulse generators. Additionally, he helps commercialize EHT technology developed with support of the Small Business Innovation Research (SBIR) program. He served on the organizing committee for the International Conference on Plasma

Science (ICOPS - 2022) and technical committee for the International Power Modulator and High Voltage Conference (IPMHVC - 2016).

Statement: I have been developing solid-state pulsed-power systems since my graduate research in plasma propulsion and continue today as a senior research scientist at EHT. In my current role, I talk to customers about their applications and how solid-state pulsed power can bring new capabilities to their field. It is incredibly satisfying to deliver pulsed-power systems that make a real-world impact to medical, semiconductor processing, environmental, energy, aerospace, and defense applications, as well as fundamental research.

I have been presenting research and exhibiting at IEEE for the past decade: Pulsed Power, ICOPS, and IPMHVC starting in 2013, 2014, and 2016, respectively. These IEEE conferences have played a significant role in helping me stay up to date on the state of the art in solid-state pulsed power as well as meeting potential customers and learning about new applications. Pulsed power is a growing field with new industrial and commercial applications being developed. To prepare, it is important that our community has a strong pipeline of scientists and engineers who are ready to rise to these challenges and opportunities. It would be an honor to give back to the pulsed power community through serving on the Pulsed Power Science & Technology Committee and providing an industrial perspective.

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

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

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

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

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

ANDRÉA SCHMIDT (M'21) Dr. Andréa Schmidt is the Electromagnetics Section Leader within the National Security Engineering Division (NSED) at LLNL and the acting Deputy Division Leader of NSED. Dr. Schmidt received her B.S. in Physics from the University of California/Berkeley in 2004 and her Ph.D. in Physics from Massachusetts Institute of Technology in 2011. She joined LLNL as a postdoctoral researcher in 2011 and then joined the staff in 2013.

Dr. Schmidt has led several projects in dense plasma focus (DPF) research that have both modeling and experimental components. She recently led the design and build of a large Megajoule-class DPF facility, currently being developed for flash neutron radiography. She has also initiated efforts in kinetic modeling of magnetron plasmas and kinetic modeling of shear-flow-stabilized z-pinch configurations for controlled fusion under the ARPA-E ALPHA program.

Dr. Schmidt has co-chaired a working group for a DoE Basic Research Needs (BRN) workshop on accelerators. She has served on the LLNL Labwide LORD committee, and has been a reviewer for NSF, the Office of Science, the ORISE Postdoctoral Fellowship

Program, the Office of Stockpile Stewardship/ Stewardship Science Academic Alliances Program, and the Office of Defense Nuclear Nonproliferation. She is currently on the LLNL HED LORD committee. She is a DoE Office of Science Early Career Award recipient.

Dr. Schmidt also has participated in numerous outreach activities to further public understanding of science, including Dinner with a Scientist, Expanding Your Horizons middle school girl's workshop, LLNL Stem Day, UC Berkeley Cal Day/ physics demo room, APS OPP Plasma Physics Expo, numerous tokamak tours and fusion presentations for visitors, and Fusion Day on Capitol Hill.

Statement: As the Electromagnetics Section Leader at LLNL, I am privileged to have the opportunity to interact frequently with numerous pulsed power groups at LLNL, who are developing innovative drivers and loads. Some of the projects I get to regularly learn about include the design and construction of the solid-state pulsed power and induction accelerator cells to drive the ASD Scorpius accelerator, bipolar solid-state pulsed power for driving actively-reset linear induction accelerators (LIAs), impedance-matched Marx generators for efficiently driving high current loads, and magnetic flux compression generators for driving high currents. I also oversee the MegaJoule Neutron Imaging Radiography (MJOLNIR) dense plasma focus (DPF) as well as the LLNL efforts in collaboration with NNSS to design and build the ZEUS DPF that will be used for a reactivity measurement. I am very excited about many of the new pulsed power developments in both drivers and loads, and the potential collaborations between institutions that these new opportunities can bring. If elected to serve on PPST, I would like to focus on providing opportunities for collaboration, as well as ensuring that we have a healthy and diverse pipeline of early career pulsed power scientists and engineers.

DAVID WETZ (S'02-M'04-SM'13) David Wetz, Ph.D., is currently a Professor in the Electrical Engineering Department of the University of Texas at Arlington (UTA) and the UTA College of Engineering's Director of Strategic Initiatives (since September 2017). He earned his B.S. degrees in Electrical Engineering and Computer Science from Texas Tech University in 2003. He earned his M.S. and Ph.D. degrees in Electrical Engineering from the same in 2004 and 2006 respectively. During his time at Texas Tech, he worked as a graduate Research Assistant in the Center for Pulsed Power and Power Electronics where his research focused in the areas of pulsed power system design, pulsed dielectric breakdown of liquids, and electromagnetic launchers. After earning his Ph.D, he worked as a Postdoctoral Fellow, and later as a Research Associate, at the Institute for Advanced Technology (IAT) at the University of Texas at Austin. He joined the faculty of the Electrical Engineering Department at UTA in 2010 at the rank of Assistant Professor, was promoted to Associate Professor in 2015, and then Professor in 2018. His research currently focuses on the areas of pulsed power, microgrids, electrochemical energy storage, and pulsed dielectric breakdown. He has authored or co-authored over 172 publications including 60 peer refereed open journal papers, 12 peer refereed publications at classified US Symposiums, and 100 international conference papers. He has graduated 8 MSEE students and 14 PhD EE students since joining UTA in 2010. He is presently a consultant with Commonwealth Technology Incorporated, supporting the Naval Research Laboratory's (NRL's) Plasma Physics Division. He is also a consultant with Noblis MSD supporting the Power & Energy R&D at Naval Surface Warfare Center – Philadelphia Division (NSWC-PD). He was recognized as the IEEE 2006 Pulsed Power Student of the Year and in 2008 he was recognized as an Outstanding Young Researcher at the 2nd Euro Asian Pulsed Power Conference. He received an Office of Naval Research (ONR) Young Investigator Award in 2011 and has been a Senior Summer Research Fellow at NSWC-PD during the summers of 2014 through 2021, respectively. He was a member of the IEEE PPS&T Technical Committee from 2012 to 2021, serving as Secretary from 2013 – 2017, Vice Chair from 2017 – 2019, and Chair from 2019 – 2021. He served as the Technical Program Chair of the 2015 IEEE PPC and as General Chair of the 2021 IEEE PPC. He has served multiple times as a Guest Editor for the IEEE Transactions on Plasma Science (TPS) and once for the IEEE Transactions Dielectrics and Insulation (TDEI).

Statement: I have spent the last 20 years working to advance the state-of-the-art in the fields of pulsed power, prime power, power electronics, dielectric breakdown, electromagnetic launchers, and power systems. I am so fortunate to have gotten into the pulsed power field as a graduate student because of the amazing leadership of Texas Tech's Center for Pulsed Power and Power Electronics. The educational opportunity I was afforded and the exposure I had while in graduate school to the IEEE PPC and PPS&T committee was so rewarding. Since graduating in 2006, I have been fortunate to work with the most amazing scientists in the pulsed power field from academia, industry, and national laboratory environments. Having had the opportunity to lead the PPS&T from 2019 – 2021, and to serve as the General Chair of the 2021 PPC, have been experiences I will cherish forever. A major component to being a university professor is our desire and commitment to serving our technical community. I truly enjoy serving the PPS&T community by continuing to grow it upon its strong foundation. COVID and global tensions have made hosting and running technical conferences so challenging. The PPS&T Committee must be ready to respond to these challenges and ensure that our conferences continue to be the flagship technical exchange for pulsed power science and technology. As a faculty member, I am doing my best to continue to mentor the next generation of engineers interested in leading and serving our community. I would like to continue to serve the PPS&T as an elected member and am grateful for your vote.

IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY
PLASMA SCIENCE AND APPLICATIONS EXECUTIVE COMMITTEE ELECTION
For a Three-Year Term 1 January 2024 – 31 December 2026
(Vote for UP to SIX)

LUIS SEBASTIAN CABALLERO BENDIXSEN (M'19) Dr. Luis Sebastian Caballero Bendixsen graduated with B. Sc. (2001) and an M. Sc. in Physics (2004), both from Pontificia Universidad Catolica de Chile, Santiago, Chile; then he read for a DPhil. (Ph.D.) in Engineering Science at Lincoln College, Oxford University (2004–2009). Currently he is a Lead Scientist at the Pulsed Power Group at First Light Fusion, where he is responsible, amongst other things, for the design, development and construction of pulsed power drivers used for fusion experiments. Since joining First Light Fusion in 2017, he has seen the development and operation of all the pulsed power generators in use at First Light Fusion for applications including electromagnetically propelled projectiles and radiation sources (i.e., X-rays and neutron sources) for diagnostics and calibration purposes. This includes Machine 3, which generates currents of up to 14 MA and 1000T magnetic fields used for First Light Fusion's impact fusion. Before this, Luis Sebastian held several research positions at the University of Oxford, Rutherford Appleton Laboratory's Central Laser Facility, Pontificia Universidad Catolica de Chile Physics Department, and University of California San Diego's Center for Energy Research, working both on pulsed power development and plasma physics.

JIM BROWNING (M'90-SM'08) received his BS and MS degrees in Nuclear Engineering from the Missouri School of Science and Technology in 1983 and 1985, respectively. He received his PhD in Nuclear Engineering and Engineering Physics from the University of Wisconsin—Madison in 1988, where his research was on RF waves in mirror-confined plasmas. He was a Post-doctoral researcher and research associate at Northeastern University in Boston from 1988-1992, where he worked on Crossed-Field Amplifiers (CFAs), space plasma, and gated vacuum field emitters. He joined Micron Technology from 1992–1998, where he designed, developed, tested, and manufactured active matrix Field Emission Displays (FEDs) and passive matrix FEDs. In 1998 the group became part of PixTech, Inc. which also developed and manufactured FEDs. In 2001 he formed a consulting company working in a variety of flat panel display technologies. He joined the Electrical and Computer Engineering Department at Boise State University in 2006, where he is currently a professor and the Associate Dean for Research Affairs in the College of Engineering. His research includes experimental and simulation efforts in magnetrons and CFAs related to improving device performance and understanding crossed-field device physics. He works in vacuum transistors, including gated field emission device reliability and characterization, with an interest in using vacuum transistor circuits in high temperature and high radiation environments. Additional research in cold atmospheric pressure plasma for use in biomedical and agricultural pathogen remediation includes experimental development of large plasma arrays for surface decontamination and wound healing.

PETER DUSELIS (M'22) was born in Indianapolis, Indiana in 1976. He received a B.S degree in mathematics and physics from Purdue University in 1999, a M.S. and a Ph.D in applied physics from Cornell University in 2003 and 2004, and an M.B.A from University of New Mexico in 2008.

In 2004 he joined Mission Research Corporation, which was later acquired by Alliant Tech Systems, as a Scientist developing high power microwave sources. In 2006, he joined Ktech Corporation as a Senior Scientist. He managed the development of the first high power microwave system to engage targets while airborne. After Raytheon acquired Ktech in 2011, he first became a Senior Manager for HPM systems and in 2014 became the Senior Manager for Directed Energy. While in the position, he doubled the revenue of the Directed Energy Division and grew the staff to 65+ people by focusing on developing high technical readiness level pulsed power, high power microwave, and charged particle beam systems for both defense and commercial applications. In 2018, he and his business partner started Science, Engineering, Management Solutions (Sem-Sol) in Albuquerque, NM, where he is currently the Executive Vice President. He has grown the Sem-Sol to 53 employees and over \$13M in yearly revenue.

Dr. Peter Duselis won the Raytheon Corporate Excellence in Engineering Award in 2013 for his work on advanced airborne high power microwave technology. He has also won the Flying 40 Falcon Award for business growth in New Mexico in 2019, 2020, and 2021. He currently is on the Technical Advisory Committee for Multi-University Research Initiative for the Air Force Office of Scientific Research. He is a member of the Directed Energy Professionals Society.

JOHN FOSTER (M'07) Dr. John Foster has been a professor at the University of Michigan for over 15 years. His research area is low temperature plasmas, which span the gap from basic plasma science to electric propulsion to atmospheric-pressure plasmas—for environmental hazard mitigation. This environmental work includes plasma-based contaminant removal in water and plasma-based depolymerization of plastics. He also studies the basic plasma science of the plasma-liquid interface, including self-organization and mass transport at the interface. On the propulsion side, he studies ways to improve efficiency and performance of electric propulsion devices. Currently, his group is studying how test facility effects impact interpretation of plasma thruster operation in contrast to space operation and how these effects scale at high power. Before his work at UM, he was a research scientist for nearly 10 years at NASA working in the area of electric propulsion—primarily on hollow cathodes and gridded ion engines. He has worked on a number of gridded ion thruster and cathode technologies that have since flown.

MATTHEW GOMEZ (GSM'06-M'09-SM'21) Dr. Matthew Gomez earned Bachelor's, Master's, and Doctorate degrees from the Nuclear Engineering and Radiological Sciences Department at the University of Michigan in 2005, 2007, and 2011, respectively. Matthew was awarded the *University of Michigan Distinguished Achievement Award, Nuclear Engineering and Radiological Sciences Graduate Program* in 2010 and his doctoral research was supported by the *Stewardship Science Graduate Fellowship* from 2007–2011. Following graduation, Matthew was hired as a staff member at Sandia National Laboratories in 2011, where he studies inertial confinement fusion and high energy density science on the Z machine. Matthew is the staff member lead of the Magnetized Liner Inertial Fusion program. Matthew also has held acting manager roles for the Radiation and Fusion Experiments department in 2016 and the Radiation Experiments department in 2023. Matthew received the *2019 IEEE NPSS Early Achievement Award* for contributions to magnetically-driven high energy density science and leadership of the experimental demonstration of a magneto-inertial fusion concept with the possibility of scaling to ignition. Matthew also was awarded the *Presidential Early Career Award for Scientists and Engineers* in 2019 for exceptional leadership and contributions to innovative research in high energy density physics and leadership of the magneto-inertial fusion effort, and for his formidable commitment and exemplar role model to develop a community of scientists and engineers. Matthew has co-authored over 50 peer-reviewed publications including 10 as first author and has given over 20 invited presentations.

EVDOKIYA KOSTADINOVA (M'19) Dr. Kostadinova obtained her B.S. in Physics and a B.A. in Political Science from Furman University in 2014. She received her Ph.D. in Physics in 2017 from Baylor University. Currently, Dr. Kostadinova is an assistant professor at Auburn University's Department of Physics. Kostadinova has authored a Springer book on employing new mathematical techniques in the study of energy transport in two-dimensional disordered systems. She is the chair of Coalition of Plasma Science (CPS) [<https://www.plasmacoalition.org/>], Vice-President for Plasma Science for the Fusion Power Associates (FPA) [<https://fusionpower.org/>], member of the Science Advisory Board for LaserNetUS, and a chair and member of several APS Division of Plasma Physics committees.

Kostadinova's primary research interests lie along the intersections of fundamental physics and applied mathematics. Those include anomalous diffusion in disordered media with nonlocal interactions, self-organization and stability of dusty plasmas in gravity and microgravity, and the thermodynamics of driven-dissipative systems. Specific current projects include studying the dynamics of dusty plasmas in the Plasmakristall-4 facility on board the International Space Station and developing a spectral approach to semi-classical turbulence in dusty plasmas. Kostadinova applies her analytical models to various real-life problems at the intersection of plasma science, fusion energy, and astro/space physics. Current applied projects include energetic electrons in fusion devices and in space, lunar dust mitigation techniques, material ablation in extreme plasma conditions, and production of organics in the Early Earth's atmosphere. Her personal website is https://sites.baylor.edu/eva_kostadinova/

GEORG MUELLER (M'06) received the diploma degree (MSc) in physics and doctoral degree in engineering from the University Karlsruhe, Germany, in 1990 and 1999 respectively. Since 1990, he was with the Research Centre Karlsruhe, where he worked in different research fields including thin film deposition by channel spark, plasma and electron beam diagnostics, development of multi-point explosive emission cathodes, transport of large area pulsed electron beams and material processing by pulsed electron beams. Since 2006, he is head of the Pulsed Power Department and Deputy Director of the Institute for Pulsed Power and Microwave Technology (IHM) at Karlsruhe Institute of Technology (KIT). He is responsible and involved in research and development of pulsed power technologies and applications in the field of electrodynamic fragmentation of solid dielectric materials, material surface processing by pulsed electron beams, plasma diagnostics, beam physics, electroporation of biological cell membranes and basic research in bioelectrics. He is author and co-author of more than 250 publications in peer reviewed journals, conference proceedings and four book chapters. In 2013 he was appointed Professor for Pulsed Power Technologies at the Faculty of Electrical Engineering and Information Technology at KIT. He is member of the International Advisory Committees of the BEAMS- and EAPPC-conferences. He served as the General Chair of the IEEE co-sponsored EAPPC/BEAMS conference in 2012 and was the Financial Chair of the ICOPS 2008, both in Karlsruhe (Germany). From 2015 to 2018 and 2020 to 2023 he was a member of the IEEE-PPST committee and helped to organize the PPC conference. In 2022, the two IEEE committees PSAC-ExCom and PPST elected him as the General Chair of the upcoming Pulsed Power and Plasma Science (PPPS) conference to be held in Berlin in 2025.

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 member 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.

DAVID SIMON (GSM'10-M'14) Dr. David Simon is a senior physicist and program manager at the Air Force Research Laboratory in the Directed Energy Directorate. Before joining AFRL, he received a double BA from UC Berkeley in nuclear and mechanical engineering and PhD from the University of Michigan in nuclear engineering in 2016. He has been an IEEE member since early graduate school. Since then, he has been working on development of next generation high powered microwave sources for military applications. This work covers cross-field and linear beam vacuum radio-frequency devices along with supporting technologies, including field emission cathodes and pulsed power. He is part of international collaborations on exploring the military utility of radio frequency directed energy, including one with the UK that he manages. His current research interest encompasses analytical and numerical investigation of electron beam devices with the goal of creating smaller high power RF sources at larger frequencies. He has published multiple papers and given many talks on these subjects and is a co-author on two related patents. In addition, he is active in volunteering his time to support the AFRL-STEM academy in their mission to increase interest in science among school children of all ages.

BHUVANA SRINIVASAN (M'16) Dr. Bhuvana Srinivasan is an Associate Professor in the Kevin T. Crofton Department of Aerospace and Ocean Engineering at Virginia Tech (moving to the University of Washington in 2023), where she has been developing a program in computational plasma physics. Prior to joining Virginia Tech, she was a postdoc and a scientist at the Los Alamos National Laboratory. She received her PhD from the University of Washington. She teaches undergraduate and graduate courses in spacecraft propulsion, advanced spacecraft propulsion, computational plasma physics, and hypersonic aerodynamics. She is the Director of the Plasma Dynamics Computational Laboratory which comprises two postdocs, eight PhD students, and a number of masters and undergraduate students. The research areas in her group include plasma-material interactions in thrusters and magnetic fusion devices, instabilities in high-energy-density fusion and astrophysical plasmas, ionospheric plasma instabilities, and numerical algorithm development for fluid and kinetic models. She is a recipient of the NSF CAREER award as well as the Outstanding Assistant Professor award and Faculty Fellow in the College of Engineering at Virginia Tech. She is a member of FESAC (Fusion Energy Sciences Advisory Committee) for the Department of Energy. Her research has been supported by the Air Force Office of Scientific Research, the Department of Energy Office of Science, the Department of Energy National Nuclear Security Administration, ARPA-E, the National Science Foundation, and the Los Alamos National Laboratory.

TOM UNDERWOOD (M'23) is an Assistant Professor in the Department of Aerospace Engineering and Engineering Mechanics at The University of Texas at Austin. He received his Ph.D. in Mechanical Engineering from Stanford University with a focus on plasma physics and was a postdoctoral fellow in chemistry at Harvard University. His research lies at the intersection of plasma physics, fluid mechanics, and chemistry. He is interested in understanding how the chemistry and dynamics of plasmas/reacting flows can be leveraged to address challenges in space, propulsion, and the synthesis of clean and environmentally sustainable fuels. He is a recipient of numerous awards including the AFOSR Young Investigator Program.

ÁGÚST VALFELLS (M'12) Dr. Ágúst Valfells is a professor and chair of the Department of Engineering at Reykjavík University, Iceland, where he has been since the founding of the engineering program at RU in 2005. Prior to joining Reykjavík University, he was at the National Energy Authority of Iceland, as an advisor on alternative energy carriers for mobility, from 2003 – 2005, and as a research associate at the Institute for Research in Electronics and Applied Physics at the University of Maryland from 2000 – 2003. He received a C.S. degree in Mechanical Engineering from the University of Iceland in 1993 and worked on mechanical design for a couple of years before joining the Department of Nuclear Engineering at the University of Michigan, from which he graduated with a Ph.D in 2000. His current research interests are primarily in the area of discrete particle effects on electron emission and propagation, space-charge effects, and molecular dynamics simulations for microscale vacuum electronics. Previous work has been on multipactor discharge, secondary electron emission in depressed collectors and on designing diagnostics for the University of Maryland Electron Ring. He is also interested in renewable energy systems and efficient models for geothermal reservoirs, and has been involved with the Iceland School of Energy since its founding in 2008, serving as director from 2011–2013.

IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY ELECTION

RADIATION INSTRUMENTATION STEERING COMMITTEE ELECTION

For a Three-Year Term 1 January 2024 – 31 December 2026

(Vote for UP to FIVE)

ETIENNETTE AUFRAY (M'07) is a senior physicist at CERN, Geneva, Switzerland. She received her PhD degree from University Pierre et Marie Curie (ParisVI) in Paris, France, in 1995. Since 1992, she works at CERN in the field of scintillators and their applications in particular in high energy physics and medical applications. She had a leading role in the construction of the electromagnetic calorimeter of the CMS experiment at CERN made of 75848 crystals of PWO and now works for its operation and upgrade for HL-LHC. She is active in research activities on scintillating materials for future detectors and for the development of PET and TOPPET within the international Crystal Clear collaboration of which she is the spokesperson since 2010. In recent years she has coordinated and participated in several European projects related to scintillating materials and their applications.

Statement: For much of my career, I have carried out research on inorganic scintillator ranging from basic research and development activities (scintillation properties, characterization of mechanical and optical properties and radiation hardness of scintillating materials) to the conceptual design, prototyping and implementation of large detector systems for particle physics experiments and other applications. I have been involved in the development of several ionizing radiation detectors both for high energy and medical imaging.

If I am elected to RISC, I will promote the development of radiation detectors and make available my experience and expertise in this field, aiming at serving the interests of the IEEE members and attendees of the Nuclear Science Symposium & Medical Imaging Conference (NSS/MIC). I will also try to attract more young scientists in this domain.

I am member of the IEEE NPSS since 2006, I was member of the RISC committee from 2012 to 2014 and I have a long-standing experience with the IEEE NSS/MIC conferences. Over many years, I have been participating and presenting many papers at several IEEE conferences and served several times as scintillator topic convener. I also gave lectures on inorganic scintillators during short course training courses at IEEE NSS/MIC conferences. Moreover, I have organized international conferences (SCINT2001, ITBS2003, Euromedim2006, Scint2017). With my experiments I believe I can be an effective member of RISC.

ANGELA DI FULVIO (M'13) Prof. Angela Di Fulvio is an assistant professor in the Department of Nuclear, Plasma, and Radiological Engineering (NPRE) at the University of Illinois at Urbana-Champaign. She is a researcher in radiation measurements applied to nuclear physics and nonproliferation. Before joining NPRE, Angela did postdoctoral research at the University of Michigan and Yale University, where she developed neutron detectors to identify, image, and characterize fissile materials. Angela is also a member of the Physicists Coalition for Nuclear Threat Reduction to inform, engage, and mobilize the physical scientist community around the dangers of the world's nuclear weapons.

Statement: Angela has been a member of IEEE NPSS since 2015. She values being part of the vibrant IEEE NPSS community of scientists and students who enable scientific discoveries through increasingly sensitive and accurate radiation measurement techniques. If elected as a member of the Radiation Instrumentation Steering Committee (RISC), she would contribute to further broadening member participation in the Radiation Instrumentation Technical Committee and increasing its visibility by helping to organize joint sessions at the Nuclear Science Symposium and Medical Imaging Conference in synergy with the Nuclear Medical and Imaging Sciences Council and other IEEE NPSS Committees.

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, plays a leading role in TDAQ development in PANDA experiment (since 2007 to present), 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 concentrator for CMS Phase II upgrade since 2018 and CEPC TDAQ R&D activities.

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

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

ABDALLAH LYOUSSI (M'12-SM'22) is a Physicist in nuclear instrumentation, radiation detection and nuclear measurement at CEA French Atomic Energy Commission in France. He received his MSc in nuclear physics from Fes University in 1988 and MSc in Nuclear Engineering from French institute of nuclear sciences and technologies (INSTN) in 1990. In 1994 he received his PhD in nuclear physics from Blaise Pascal University (Clermont-Ferrand, France). He received French Nuclear Energy Society Award for his works on photofission interrogation as nondestructive measurement by using a LINAC machine. He has worked on nondestructive measurement methods such as photofission interrogation, neutron interrogation by using different kinds of detectors, electronics, data acquisition systems and advanced particles production machine like LINAC; neutron generators, X tubes. He developed, patented and published various works and innovative and advanced nuclear measurement methodologies. Abdallah Lyoussi is Professor at INSTN and Aix-Marseille University where he cochairs a master on "Instrumentation & Measurements in Harsh Media" and since 2022 an international master on "Instrumentation and Measurement Science for Major Nuclear Research Facilities: IMSci-Nu". He is currently working at CEA-IRESNE research institute in France as Research Director and Fellow in physics of radiation detection, nuclear instrumentation and measurement. Since 2010, Abdallah Lyoussi is the founder and scientific chair of a new joint instrumentation and measurement Lab. LIMMEX between CEA, Aix-Marseille University and CNRS.

He is also the founder and the General Chair of the ANIMMA conference (www.animma.com) since 2009.

Abdallah Lyoussi is IEEE distinguish lecturer since 2014 and IEEE Senior Member since 2021.

Statement: I have carried out research on radiation instrumentation and detection as well as innovative nuclear nondestructive measurement techniques for much of my career. If elected to RISC, I would work to enhance its core functions, helping to maximize benefit to attendees of NSS-MIC 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 of activities and specifically regarding the nuclear rebirth and the climate change crucial problematic. I have contributed to IEEE meetings over many years. I founded and lead since 2012 at NSS-MIC conferences a specific workshop dedicated to instrumentation and measurement in nuclear media. The workshop attracted increasing number of attendees. I also act every year as Session Convener for NSS-MIC conference for which I lead and chair specific scientific session that I created which is dedicated to my fields of research activities "instrumentation and measurement in nuclear media". All these actions have given me insight to be an effective member of RISC.

STANISLAV POSPÍŠIL (M'00-SM'11-LS'22) is the Director Emeritus of the Institute of Experimental and Applied Physics (IEAP) of the Czech Technical University in Prague (CTU). He received MSc. degree in Nuclear Physics at the CTU in 1964 and later the Doctor of Science (DrSc.) degree in Physical and Mathematical Sciences at Charles University in Prague. In 2002 he founded the IEAP CTU as an independent university institute, which he led for 13 years. From 2009 to 2018 he served as Professeur Associé for the Faculté des Arts et des Sciences, Université Montréal. He supervised 25 MSc. and 18 Ph.D. students. For his "academic activities of lasting values" the CTU awarded him the Gold Medal and Gold Felber Medal. During his 58 years scientific career, Stanislav dealt with neutron nuclear physics and spectroscopy. He carried out his experiments in the FLNP JINR Dubna, on HFBR of the BNL, Tandem in Munich and on HFR of the ILL Grenoble. In 1992, when Czech Republic became the Member state of CERN, he focused his activities on ATLAS and MoEDAL particle physics experiments, as well as on R&D19/48/50 and Medipix2/3/4 collaborative projects dedicated to development of radiation hard pixel detectors for LHC experiments and their applications for hadron therapy, X-ray and neutron imaging, NDT and dosimetry. Later he also pushed the use of hybrid pixel detectors for real time measurement of radiation in extraterrestrial conditions. Stanislav's publication record lists 1350 publications cited 50216 times with H-index of 110. The results devoted to the development of hybrid pixel detectors and their applications for X-ray and neutron imaging, 3D particle tracking has received recognition and presented as invited plenary lectures at number of conferences including the 2008 and 2019 IEEE NSS/RTSD. Stanislav has been a past RISC member from 2007-2010. As a Senior Life IEEE Member, Stanislav currently contributes to activities of the IEEE NPSS Czechoslovak Chapter, which he founded in 2009, and to educational activities organized by the IEEE NPSS worldwide. In 2020 he received "The Glenn F. Knoll Radiation Instrumentation Outstanding Achievement Award for contributions to the development and application of pixelated radiation detectors in medical, high-energy and space science".

Statement: I consider as my main goal during my work in the IEEE NPSS RISC to raise public awareness of the importance of experimental physics of microworld both
- for general needs of education
- and strengthening the transfer of knowledge, methods and high technologies developed in the framework of physics of microworld for the needs of the development of other scientific disciplines and their socially highly sought-after applications.

Specifically, I mean the following steps and suggestions:

1. To contribute directly and indirectly to IEEE NPSS educational activities worldwide as well as in Europe namely through personal contribution to educational workshops and schools organized within the series of ANIMMA conferences.
2. Disseminate information to non-European colleagues about what we are doing in Europe with the support of the IEEE NPSS regarding the strengthening of laboratory-based education in subatomic physics on high schools and universities.
3. To inform the international community of the IEEE NPSS about the progress in detector development and the methodology of their use in Europe beyond the high-energy physics cultivated at CERN. By this I mean non-destructive imaging and tomography for biomedical applications and material sciences, for nuclear research, and for research oriented on near and far space, which all are often addressed in the EU in close cooperation with US partners. Joint NASA/ESA projects solved with the participation of Czech research teams serve as good examples of such cooperation.

In formulating these goals for my future work in RISC, I draw on the personal experience of the Director of the Institute of Experimental and Applied Physics (IEF) CTU in Prague, which I founded 21 years ago with a group of young people, mostly doctoral students, and postdocs. I have constantly taken care that the IEEE NSS/MIC/RTSD conferences become a key source of knowledge for these young colleagues about what real scientific work at international level means. Their active participation in them with the presentation of their own results has always been a significant motivation for their further creative work. In this sense, after more than 20 years, I can state that our constant contacts with the IEEE NPSS, which over the years were reflected in the also establishment of the NPSS branch at the Czechoslovak IEEE Section on March 17, 2009, significantly contributed to the successful development of my institute. It motivates me to contribute to the work of the IEEE NPSS RISC once again.

ANDRE SOPCZAK (M'07-SM'11) Undergraduate studies in mathematics and physics at Munich University, 1992 PhD University of California, San Diego, CERN and DESY Fellowships, teaching and research assistant at Karlsruhe University. 2001 faculty member at Lancaster University, tenured 2004. Since 2012 Czech Technical University in Prague.

Research on radiation hardness of CCD detectors, application of Medipix, Timepix and Timepix3 detectors, accelerator R&D (collimators), searches for new particles and Higgs boson physics. Forward Detectors at LHC. Major collaborations L3, DELPHI, LCFI, D-zero and ATLAS.

Several TNS publications, >120 individual publications <http://cern.ch/sopczak/Welcome.html>, h-index>100.

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

- contribute to advancements of theory and applications of Ionizing Radiation Instrumentation
- through initiating and chairing an LMAG, adding experience with the IEEE admin procedures
- promote the detector technology advancements for further applications
- serve as ambassador between the large Collaborations and RISC
- find efficient ways to explain detector advancements understandably based on several grants for outreach, promote public understanding
- electronic learning and an e-learning project in an international consortium
- supporting fund raising due to successful School organizations
- with participation in IEEE NSS/MIC conferences since 2005, supporting the JOS, researching future NSS/MIC conference locations and assisting the selection of the respective General Chairs
- supporting the Awards committee with experience of student selection and successfully supporting and initiating RISC Glenn Knoll awards
- supporting administrative items by having gained experience with IEEE procedures, local organizer of Region 8 LMAG meeting.

GIANLUCA TRAVERSI (M'08-SM'11) received a M.Sc. Degree in Electronic Engineering in 2000 from the University of Pavia and a PhD in Electrical, Electronic and Computer Engineering in 2004 from the same university. He is currently an Associate Professor of Electronics at the Department of Engineering and Applied Sciences, University of Bergamo. His professional expertise is in the fields of the design of front-end circuits for radiation detectors, of the study of noise and ionizing radiation effects in electronic devices and circuits, and of the development of instrumentation for solid-state device and circuit characterization. Gianluca Traversi has also developed monolithic active pixel sensors (MAPS) in CMOS technologies in the 100-nm regime, pursuing innovative solutions for the integration of advanced analog and digital functions at the pixel level, in view of applications in detector systems for experiments at future high luminosity colliders and for imaging at high data rate. In 2013, Gianluca Traversi joined the CMS experiment at CERN and is collaborating at the design of front-end electronic systems for future upgrades of pixel detectors in the Tracker. Within the CERN R&D RD53 project, he designed some fundamental IP blocks that have been integrated into the RD53 chip developed for the readout of the innermost layer of pixels of the ATLAS and CMS experiments. Since 2000 he has been working on several projects funded by the Italian Institute for Nuclear Physics (INFN) and by the Italian Ministry of University and Research, and since 2012 he has been a Senior Member of the IEEE. According to the Scopus database, is author or co-author of more than 230 papers published in peer-reviewed journals and conference proceedings.

Statement: I have been working in the field of electronics for radiation instrumentation since I was a master's thesis student. The NSS/MIC/RTSD conference in 2004 was the first conference I attended and I immediately perceived the relevance of the conference in the field of nuclear science. Therefore, I started to contribute to the research activities presented at the Conference and published in the IEEE Transactions on Nuclear Science, first as co-author and then as main author. Since 2009 I had the opportunity to serve as a reviewer and session chair to the NSS/MIC/RTSD conference. Recently, in 2021, I have become an NPSS member and the possibility to become a RISC Member at large would increase my level of involvement in NPSS activities. If elected, I would seek to further improve the quality of the NSS/MIC/RTSD conference promoting the participation of young colleagues and enhancing their engagement in the Society's activities.

MICHAEL TYTGAT (M'10) I obtained my PhD in Experimental High Energy Physics (HEP) in 2001 and continued as Postdoctoral Fellow from 2001 to 2010 after which I was appointed as a staff scientist at Ghent University (UGent, Belgium). Early 2023 I was appointed associate professor at Vrije Universiteit Brussel (VUB, Belgium), while still maintaining a 10% Guest Professorship at UGent. In 2006-2007 I was visiting scientist at CERN, and I have been Guest Lecturer at Mons University (Belgium) since 2016.

In the course of my career, I have acquired extensive experience in data science techniques, simulation studies, and particle detector development, working in particular with gaseous detectors, scintillators, Cherenkov counters, and calorimeters). Over the years I have been involved in several international nuclear and particle physics experiments conducted at various accelerator facilities in Europe, including DESY and CERN. Since 2007, my main focus has been on the muon system of the CMS experiment at the CERN Large Hadron Collider, where I delivered leading contributions to the extension and upgrade of the Muon-RPC, and where in 2009 I co-founded the CMS Muon-GEM group, *i.e.*, an entirely new muon subsystem in CMS. I have held various high-level scientific management positions mostly related to the CMS Muon system. For many years, I have also been involved in R&D on gaseous detectors and calorimetry for future particle colliders. Following my recent appointment at VUB, I am now also engaging in silicon sensors related work, allowing me to expand my instrumentation expertise. In the last few years, next to fundamental research my interest has also grown in interdisciplinary research and societal applications of particle physics instrumentation, which led to the start of several activities in the field of muon radiography. The latter type of projects allows me to use my instrumentation expertise for the benefit of society and other non-HEP-related research in *e.g.*, geoscience and archaeology. For about 10 years I have been teaching physics instrumentation-related courses to university students in physics and physics engineering at Master level. Finally, I am regularly engaging in science communication and outreach projects, for which in 2020 I was awarded the Annual Science Communication Award of the Royal Flemish Academy of Belgium for Science and the Arts & the Young Academy.

Statement: I have been a member of IEEE and its Nuclear and Plasma Sciences Society (NPSS) since 2011. I have attended and contributed to several Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC) events, leading to (co-)authorship of 7 publications in IEEE journals, *i.e.*, 1 IEEE Transactions on Nuclear Science paper and 6 contributions to the IEEE Nuclear Science Symposium Conference Records. At these events, I am always enjoying the multitude of topics covered by the scientific program and the wide variety of company exhibits. As an instrumentalist I support any activities and initiatives that aim at the proliferation of knowledge on instrumentation. I have personally organized and chaired several scientific events related to particle physics detector technologies and their applications. I am also an active peer-reviewer for several physics instrumentation related journals and I was appointed editor-in-chief of one relatively new instrumentation in sciences journal. As such, I would like to play an active role within the IEEE NPSS and particularly within the Radiation Instrumentation Steering Committee (RISC), which given my background feels like a natural organization for me to contribute to. I would aim to actively participate in the organization of the NSS/MIC series. Based on my own impressions obtained during these events and with the clear suggestion to collect more detailed feedback from the community, I would like to investigate ways to improve the event format and the participants' experience. At the same time, I would be happy to intensify the dialogue between the RITC and the Transactions on Nuclear Science editorial board and to look for ways to enlarge the scope and impact of the journal bringing in my own experience as a journal editor and the possible feedback from the community. Although IEEE is truly a huge organization, I feel there is still some threshold within the HEP community to join and engage in IEEE and its activities; I would like to explore ways to remedy this situation.