IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY ELECTION

Election of Members to the Administrative Committee

NUCLEAR AND MEDICAL IMAGING SCIENCES (Vote for One)
For a Four-Year Term 1 January 2027 – 31 December 2030



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

Statement: The IEEE medical imaging sciences community has, like a great mentor, afforded me wonderful opportunities and experience as an imaging scientist for over 20 years. Previously I have enjoyed serving this community as an elected member of the Nuclear Medical and Imaging Sciences Council and also on the NSS-MIC-RTSD conference organising committee, both of which taught me important priorities around finances, awards, journal management and the functioning and interaction of technical committees. Serving on the Nuclear and Plasma Sciences Society (NPSS) Administrative Committee (AdCom) is an opportunity to further support our scientific community in some key governance directions: implementing strategies to broaden participation, particularly encouraging involvement of researchers and engineers from the Asia-Pacific region in NPSS activities; developing initiatives that will maximise bang for buck impact across multiple technical committees and societies; and strategy development for leveraging AI efficiencies and avoiding AI pitfalls across our technical committees.



GRETA SENG PENG MOK (S'04-AM'10-M'12-SM'14) Prof. Greta Seng Peng MOK is a Professor in the Department of Electrical and Computer Engineering, Faculty of Science and Technology at the University of Macau, with joint affiliations at the Center for Cognitive and Brain Sciences and the MOE Frontiers Science Center for Precision Oncology. She earned her Ph. D. in Medical Imaging Physics from Johns Hopkins University, USA, and her B.S. in Biomedical Imaging and Radiological Sciences from National Yang-Ming University, Taiwan. She was a visiting scholar at Inselspital, Universitätsspital Bern (2025), University of Michigan Medical School (2023) and UMASS Chan Medical school (2017-2018). Her research encompasses medical imaging technologies including SPECT, PET, multi-modality imaging (PET/SPECT/CT/MRI), internal dosimetry, molecular imaging, and AI in medical imaging. Prof. Mok serves as Associate Editor for EJNMMI Physics, guest Associate Editor for Medical Physics, and is Editorial Board member of EJNMMI, EANM Innovation, Quantitative Imaging in Medicine and Surgery (QIMS) and Nuclear Medicine and Molecular Imaging (NMMI). She is the Founding and Current President of the Macao Society of Nuclear Medicine and Molecular Imaging. She is a Senior Member of IEEE and serves as IEEE NPSS NMISC ExCom Member from 2024-2026.

Statement: **Striving Excellence and Promoting Global Collaborations in Medical Imaging Sciences**
As an AdCom representative for the Nuclear Medical and Imaging Sciences Council (NMISC), my primary objective is to bridge technical excellence with strategic growth, ensuring our community remains at the global forefront of nuclear medical imaging innovation. If trusted with this role, I plan to focus on four core priorities:

- **Elevating the NSS/MIC/RTSD Conference:** I will work closely with the Joint Oversight Subcommittee (JOS) and the Radiation Instrumentation Technical Committee (RITC) to ensure our flagship Nuclear Science Symposium and Medical Imaging Conference continuously evolves, among the increasing competitions with other international medical imaging conferences. This means promoting venue locations that are accessible for broader participants, and proactively adapting our conference to emerging, hot-button topics—such as machine learning integration in image reconstruction, ultra-low-dose instrumentation, novel imaging concepts, and personalized dosimetry for radionuclide therapy breakthroughs—while expanding hybrid access to keep our global footprint strong.
- **Driving High-Impact Publications:** I aim to strengthen NMISC's vital feedback loop and partnership with the editorial boards of our premier journals—*IEEE Transactions on Medical Imaging (TMI)* and *IEEE Transactions on Radiation and Plasma Medical Sciences (TRPMS)*. By advocating for special issues on disruptive imaging frontiers and streamlining the pipeline from conference abstract to peer-reviewed publication, we can boost our impact factor and attract top-tier global research.
- **Cultivating the Next Generation (Students & Young Professionals):** To guarantee long-term continuity, we should lower the barriers of entry for early-career researchers. I am committed to leveraging NPSS New Initiatives funding to expand travel grants, create designated graduate student positions on our subcommittees, and support the expansion of global Instrumentation/Dosimetry Schools to train the next wave of medical physicists and biomedical engineers.
- **Promoting Diversity, Equity, and Inclusion (DEI):** In alignment with the IEEE Technical Advisory Board (TAB) guidelines, I would like to actively lower systemic barriers for underrepresented groups (URGs) and international members outside North America. This includes intentionally diversifying our award nomination pools—such as the Hoffman, Beekman, and Hasegawa awards—and fostering 'diversity of thought' across our technical committees.

By balancing robust financial oversight with forward-thinking technical leadership, I look forward to working collaboratively across the AdCom to expand the value of NPSS membership, enhance the global impact of our society and turn our community's scientific breakthroughs into tangible healthcare realities with closer collaborations with industrial partners.

PARTICLE ACCELERATOR SCIENCE AND TECHNOLOGY (Vote for TWO)
For the Term Beginning 1 January 2027

* The candidate receiving the highest number of votes will be elected for a four-year term (1 Jan. 2027 – 31 Dec. 2030)
* The candidate receiving the second-highest number of votes will be elected to fill a vacancy for a two-year term (1 Jan. 2027 – 31 Dec. 2028)



WILLEM BLOKLAND (S'90-M'07) is a senior researcher at Oak Ridge National Laboratory. He has received a MSc in Applied Physics from Delft University and a PhD in Electrical Engineering from Vanderbilt University. He started his career in Accelerator Instrumentation at Fermi National Accelerator Laboratory and later joined the Beam Instrumentation and Experimental Technologies at the Spallation Neutron Source. His expertise is in accelerator instrumentation such as beam current monitors, electron scanners, strain measurements, and beam imagining systems as well as leading research into applying Machine Learning to improve Accelerator Operations performance. He has taught a USPAS class in beam diagnostics and occasionally lectures at UTK. He has been involved in organizing various IEEE and non-IEEE conferences. Over the years he has mentored many students and is involved with the ORNL student program.

Statement: Over the years, I have been deeply involved in both IEEE and non-IEEE conferences, including IBIC, where I have not only participated but also contributed to the organization of events. For example, I've organized the JACOW conference for the IPAC24 editors and facilitated student grant programs associated with IPAC. My experience in these roles has strengthened my commitment to advancing particle accelerator science, particularly in the areas of beam diagnostics and supporting student initiatives to give back to our community. I believe it is essential for the ExCom and thus also AdCom to maintain its support for student grants, enabling students and young professionals to attend IPAC and potentially other IEEE sponsored conferences to foster a greater engagement among early career professionals and students. By representing ExCom at the AdCom meetings I hope to push for this to create a more interactive and connected community within the particle accelerator field and the wider NPSS fields, such as radiation effects on fluorescent coatings and ML-enabled control systems.

However, my main interest is in enabling a thriving interactive online community. I found that only once I was on a program committee for a conference, I was able to make significant and international connections that helped me finding for myself or others the expertise to help with technical problems. I feel that by immediately involving attendees, especially the sponsored students or young professionals at the conferences and connecting them first in person at the conference and then continue online through IEEE features such as Collabratec.



WOLFRAM FISCHER (M'11-SM'12) received his PhD in 1995 based on experimental accelerator work at CERN and DESY. He joined Brookhaven National Laboratory (BNL) in 1995 and advanced to his current roles as Chair of the Collider-Accelerator Department and Deputy Associate Laboratory Director for Accelerators in Nuclear and Particle Physics. Wolfram has spent his professional career primarily on the operation and upgrades of the Relativistic Heavy Ion Collider (2000–2026) and its injectors, and on related accelerator physics challenges. His focus has now turned to the EIC. He has served on numerous national and international advisory committees and panels. Wolfram received the 2017 Brookhaven Science and Technology Award.

Statement: I am honored to be nominated for the NPSS Administrative Committee (AdCom) as a representative of the Particle Accelerator Science and Technology (PAST) Technical Committee (TC). I have been active in the PAST community since 2020, beginning as a Member-at-Large, serving as TC Chair (2023–2024), and currently as PAST Secretary. My participation in AdCom will help provide continuity and sustained engagement for our community.

PAST is an integral part of NPSS, and NPSS plays a vital role in supporting major conferences such as NAPAC and IPAC in the Americas. As Chair of the Scientific Program Committee for IPAC'24 in Nashville, TN, I have worked closely with the community to advance these efforts. During my tenure as PAST Chair (2023–2024), we launched an NPSS initiative to support travel for early-career members to NPSS-sponsored conferences; this initiative is now in its third year and supports all NPSS Technical Committees. As a member of the NPSS AdCom, I aim to strengthen connections between PAST and other Technical Committees, enhance conference support, and continue expanding opportunities for students and early-career members in our community.



SPENCER GESSNER (M'26) is an Assistant Professor of Particle Physics and Astrophysics at SLAC National Accelerator Laboratory and Stanford University. He earned a Ph.D. from Stanford University, focusing on the acceleration of positron beams in plasma. Dr. Gessner was a CERN Fellow on the AWAKE proton beam-driven plasma wakefield experiment from 2016-2019, and a staff scientist at SLAC's FACET-II beam test facility from 2020-2024. Dr. Gessner currently coordinates the US 10 TeV Wakefield Collider Design Study and is the US HFCC L2 Working Group Convener on the Machine-Detector Interface for the FCC-ee collider. His work has been recognized with several awards, including the APS DPB Outstanding Doctoral Thesis Research in Beam Physics Award and the EuroNNAc Simon van der Meer Early Career Award in Novel Accelerators.

Statement: Accelerator R&D is foundational to making next-generation colliders economically viable, as the price tag of large-scale facilities can run into the tens of billions of dollars. Advances in acceleration techniques and technologies hold the promise of reducing the costs and construction timelines of future machines. But accelerator R&D is also expensive, and the research programs compete with big projects for funding. Without sustained investment in accelerator R&D today, the field risks arriving at the moment a next collider is needed only to find that the enabling technologies remain immature. Moreover, accelerator R&D programs are critical for educating and training the next generation of accelerator physicists who will design, construct, commission and operate the facilities of the future. As a representative of the PAST Technical Committee for the NPSS AdCom, I will advocate for accelerator science and build support for basic R&D within the HEP scientific community and with the agencies that fund our work.



PAOLO NENZI (S'97-M'02) is Head of the Particle Accelerators Laboratory (NUC-TECFIS-ACP) at the ENEA Frascati Research Center, Italy, since March 2026, and Scientific Coordinator of the TOP-IMPLART project since 2022. His work focuses on accelerator technologies, RF systems for linear accelerators, beam diagnostics, irradiation facilities, and applications of particle accelerators in medicine, aerospace, radiation effects testing, and advanced dosimetry. He coordinates the operation and technical activities of the laboratory accelerator facilities and is involved in strategic coordination and collaborative initiatives related to accelerator technologies, technology transfer, and compact accelerator systems for research, medical, and industrial applications.

Dr. Nenzi received his Ph.D. in Electronic Engineering from Sapienza University of Rome in 2013. He has authored or co-authored numerous journal publications and conference contributions in the fields of particle accelerators, radiation applications, RF systems, and advanced instrumentation.

Statement: Particle accelerators are essential instruments for frontier science and key enabling technologies for a broad range of applications in medicine, industry, aerospace, security, energy, and advanced research infrastructures. Continued progress in accelerator science, engineering, and technology requires sustained support for accelerator R&D, strong technical exchange, and effective cooperation among laboratories, universities, industry, and the international accelerator community. My professional experience has been developed in accelerator operation, RF systems, beam diagnostics, irradiation facilities, and multidisciplinary applications of accelerator-based technologies. This background has shown me the importance of combining scientific innovation, engineering practice, operational reliability, technology transfer, and the education and training of the next generation of accelerator scientists and engineers.

As a representative of the PAST Technical Committee within the NPSS AdCom, I would support initiatives aimed at promoting accelerator science and technology, encouraging technical dissemination and collaboration across the accelerator community, strengthening links with related organizations and industry, supporting education and outreach activities, and fostering international cooperation to improve access to funding opportunities and promote the long-term sustainability of accelerator research infrastructures and accelerator R&D programs.

RADIATION EFFECTS (Vote for One)
For a Four-Year Term 1 January 2027 – 31 December 2030



SYLVAIN GIRARD (M'05-SM'11) received his PhD degree in Photonics from Université Jean Monnet (UJM), France, in 2003. He joined the Commissariat à l'Énergie Atomique (CEA DAM) in 2004 to investigate radiation effects and hardening of optical components and fiber-based technologies for harsh environments, notably for the Laser Mégajoule program. He became CEA Senior Expert in 2011. Since 2012, he has been Full Professor at UJM, where he was named Distinguished Professor in 2021, and since 2020 he has led the MOPERE research group at the Laboratoire Hubert Curien. He is also co-founder of two joint research laboratories: LabH6 between UJM, CNRS and Exail, and OPERA between UJM, CNRS and ORANO.

His research activities focus on radiation effects on photonic technologies, especially silica-based optical fibers, fiber sensors and optoelectronic systems for space, fusion, nuclear, high-energy physics and medical applications. His work combines experimental investigations, defect physics, radiation hardening approaches and predictive modeling of photonic devices operating in harsh environments. He has supervised or co-supervised more than 30 PhD theses and has coordinated several national and international projects, including collaborations with CERN, CNES, CEA, ANDRA and ORANO. He is the coordinator of the Erasmus Mundus Joint Master Degrees RADMEP (2020–2026) and RADMEP+ (2025–2031), providing international training in radiation effects on microelectronics and photonics across six European universities.

Sylvain Girard has authored or co-authored more than 350 peer-reviewed publications and holds several patents. He served the radiation effects community as Associate Editor of IEEE Transactions on Nuclear Science (2008–2019) and as Member-at-Large of the IEEE NPSS Radiation Effects Steering Group (2013–2016). He served as Technical Chair of RADECS 2023 and General Chair of RADECS 2025, and will serve as Technical Chair of IEEE NSREC 2026.

Among his distinctions, he received the 2013 IEEE NPSS Early Achievement Award, the 2014 IEEE/SEE Léon-Nicolas Brillouin Award, and the 2021 iXcore/iXblue/iXlife Foundation Research Prize. In 2023, he was elected Senior Member of the Institut Universitaire de France in recognition of the quality of his research activities.

Statement: My technical interests focus on radiation effects on photonic technologies, optical fibers, optoelectronic systems and fiber-based sensors operating in harsh environments. I have actively contributed to the radiation effects community through numerous technical and organizational roles. For example, I served as Awards Chair for RADECS 2011, RADECS 2017 and NSREC 2024, Short Course Chair for RADECS 2009 and NSREC 2022, Short Course Lecturer at NSREC 2024, Technical Chair of RADECS 2023 and NSREC 2026, and General Chair of RADECS 2025.

Through more than two decades of collaboration between academia, national laboratories and industry, I have developed a strong commitment to fostering interdisciplinary research and international cooperation within the community. I am also strongly committed to education, mentoring and student engagement within the NPSS community. In particular, I have contributed to the development of international training initiatives such as RADMEP and RADMEP+, helping students and young researchers access advanced education in radiation effects on electronics and photonics. At the local level, I also contributed, as advisor, to the creation of the IEEE NPSS Student Branch Chapter at Université Jean Monnet.

My experience across scientific leadership, conference organization and editorial responsibilities would allow me to effectively contribute as a member of the NPSS AdCom. If elected, I would be honored to support initiatives that strengthen interactions between NPSS technical communities, encourage the participation of students and early-career researchers, and continue promoting diversity, inclusiveness and international collaboration across IEEE NPSS activities.



ARTO JAVANAINEN (GSM'09-M'11) received the Ph.D. degree in applied nuclear physics with honours from the University of Jyväskylä in 2012. He is currently Senior Researcher in the RADEF group at the Accelerator Laboratory of the University of Jyväskylä, Finland. In 2013, he received the Paul Phelps Continuing Education Grant from the IEEE Nuclear and Plasma Sciences Society. In 2015, he was appointed Visiting Assistant Professor in Electrical Engineering at Vanderbilt University. From 2016 to 2025, he concurrently served as Adjoint Assistant Professor at Vanderbilt University, and since 2025 he has served as Adjoint Associate Professor. His current research focuses on radiation effects in Silicon Carbide power devices in collaboration with CERN, ETH Zurich, Vanderbilt University, NASA, and European Space Agency. He has authored or co-authored 77 publications in the field of radiation effects in electronics and has an h-index of 22 according to Web of Science.

Statement: I have been active in the radiation effects community for more than 20 years and have regularly participated in the IEEE Nuclear and Space Radiation Effects Conference and RADECS Conference communities since 2008 and 2004, respectively. I have served the community in a variety of roles including paper reviewer, Awards Committee member, and session chair for both conferences. I had the privilege to serve as a Short Course speaker at NSREC 2019 in San Antonio, Texas. I am also a council member of the RADECS Association and served as Secretary of the IEEE NPSS Radiation Effects Steering Group from 2021 to 2024. In addition to my conference activities, I have reviewed numerous manuscripts for IEEE Transactions on Nuclear Science and other peer-reviewed journals, including Nuclear Instruments and Methods B.

My experience in academia, international collaboration, and conference organization has provided me with a broad perspective on the radiation effects community and the evolving challenges in radiation-tolerant electronics. As an AdCom member, I would work to strengthen engagement between academia, research laboratories, industry, and space organizations, while also encouraging the participation of younger researchers and engineers in NPSS activities. I would be honored to contribute to the continued growth and vitality of the NPSS community.

RADIATION INSTRUMENTATION (Vote for One)
For a Four-Year Term 1 January 2027 – 31 December 2030



CINZIA DA VIÀ (AM'04-M'05-SM'20) is a Professor of Physics at the University of Manchester and a visiting Professor at Stony Brook University. Within the CERN ATLAS Collaboration, she worked on the development of radiation-hard 3D pixel detectors and is currently exploring Quantum Imaging with x and gamma rays. She is contributing to the field in various capacities, including as Co-Chair of the Independent Committee of the EU-funded ATTRACT Initiative, Chief Editor of Frontiers in Physics: Radiation Detectors and Imaging, and co-author of a book on 3D radiation detectors. She is grateful to serve on several advisory and working groups, including those of the European Physical Society, IUPAP, and CERN IdeaSquare. Within IEEE, she is actively involved in initiatives related to climate change, nuclear energy, and sustainability across NPSS, SSIT, and IEEE Future Directions. She will serve as General Chair of the 2028 NSS-MIC-RTSD Conference.

Statement: I am deeply honoured to be nominated as the RISC representative to the IEEE Nuclear and Plasma Sciences Society Administrative CommiPee. Radiation instrumentation has been at the heart of my entire career, and I have been proud to be part of this community for many years. In this role, I would work to ensure that the contributions of our members receive the recognition they deserve across NPSS and the broader IEEE, while building stronger links between academia, industry, and policy. I would champion initiatives that reflect the interests of our community and make sure that everyone, especially those at the start of their career, feels supported, valued and included. It would be a true privilege to serve the people and the mission that make RISC so special.



ANGELA DI FULVIO (M'13) Dr. Angela Di Fulvio is an Associate Professor in the Department of Nuclear, Plasma, and Radiological Engineering at the University of Illinois Urbana-Champaign, where she directs the Nuclear Measurement Laboratory and the Arms Control Domestic and International Security Program. Before joining Illinois in 2018 as an Assistant Professor, she held research appointments at Yale University and the University of Michigan, focusing on the development of neutron multiplicity counters and superheated emulsion-based radiation detectors.

She has authored more than 150 peer-reviewed journal articles and conference proceedings. Her research group develops radiation detection systems, fast-neutron spectrometers, multiplicity counters, and associated computational methods for nuclear safeguards, security, and radiation measurements. Her work combines detector design, modeling, Bayesian inference, and machine learning to improve the extraction of information from radiation measurements.

Dr. Di Fulvio has received several awards for her scholarly contributions, including the 2022 University of Illinois Dean's Award for Excellence in Research. She is an active member of IEEE NPSS, where she serves as Chapters Co-Chair and as Member-at-Large of the Radiation Instrumentation Steering Committee within the Radiation Instrumentation Technical Committee. Her work supports the safe and secure use of nuclear materials and facilities through the development and deployment of advanced radiation detection technologies.

Statement: I am interested in serving on the IEEE NPSS Administrative Committee to help strengthen the Society's visibility, engagement, and service to its technical communities. My research and professional service are centered on advanced radiation detection, instrumentation, and measurement science, and I would bring this perspective to AdCom.

If elected, I would work to help bridge the gap between the instrumentation needs of the emerging nuclear industry, including applications in nuclear security and safeguards, and the expertise within the IEEE NPSS communities.

I am also committed to supporting students and early-career scientists through mentorship, chapter engagement, and technical programming. Through my service as IEEE NPSS Chapters Co-Chair and Member-at-Large of the Radiation Instrumentation Steering Committee, I have seen the importance of building strong professional networks.

My goal is to help NPSS continue its tradition of technical excellence while expanding participation, visibility, and opportunity across the community.



BRUCE MELLADO (M'18) I, Bruce Mellado, PhD from Columbia University, have held professorships in the United States, South Africa, and at the Institute of High Energy Physics (IHEP) of the Chinese Academy of Sciences. I serve in multiple leadership roles at the European Laboratory for Particle Physics (CERN). I was the Institutional Board Chair and am now the Deputy Project Leader of the Tile Calorimeter of the ATLAS experiment. My work has been recognized with several prestigious awards, including the TW Kambule-NSTF Prize for Research (2021), the Vice-Chancellor's Prize for Research (2022), the ODESS2025 Prize from the Pierre Fabre Foundation in France (2025), the inaugural Vice-Chancellor Prize for Innovation (2025), among others. I am a Fellow of both the African Academy of Sciences and the Academy of Science of South Africa.

I have been a member of IEEE for eight years, a journey that began when I chaired the IEEE NPSS International School for Real-Time Systems in Particle Physics held in Cape Town in 2018. I later served as Vice Chair of Membership on the Administrative Committee of the NPSS Society (2018–2020), was a member of that committee (2018–2021), and served as an elected member of the Radiation Instrumentation Steering Committee of the IEEE Nuclear and Plasma Sciences Society (2023–2025).

Statement: My interest in RISC stems from my long-standing involvement in the upgrade of the Tile Calorimeter system of the ATLAS detector at CERN, where the radiation hardness of electronics is a critical challenge. Ensuring the reliable operation of complex detector systems in extreme radiation environments has deepened my commitment to advancing robust, radiation-tolerant electronics.

I believe that addressing the challenges of radiation effects on microelectronics requires sustained, multidisciplinary collaboration. Innovations in this field will not only benefit high-energy physics but also open doors to critical applications in medicine, industry, and environmental monitoring. The development of next-generation electronics and detectors must be informed by expertise in radiation science, materials, physics, computer engineering, and microelectronics design.

It is essential that we foster environments where students and early-career scientists are exposed to a broad and integrated curriculum that bridges these domains. Building interdisciplinary teams with this diverse knowledge base is key to advancing both the science and its real-world impact.