IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY ELECTION
NUCLEAR MEDICAL AND IMAGING SCIENCES COUNCIL ELECTION
For a Three-Year Term 1 January 2027 – 31 December 2029
(VOTE FOR NO MORE THAN FIVE)

PEDRO MANUEL MENDES CORREIA (M'17) is an Assistant Researcher at the University of Aveiro (UA), Portugal, within the Radiation Detection and Medical Imaging (DRIM) group at i3N - Instituto de Nanoestruturas, Nanomodelação e Nanofabricação (Aveiro). He received his BSc in Physics (2011) and MSc in Physics Engineering (2013) from UA, and his PhD in Physics Engineering in 2018 with highest distinction, with a thesis entitled "Small animal positron emission tomography systems" where he focused on the development of low-cost, high-performance scanners for the preclinical imaging community. He was a short-term visiting researcher at the UC San Francisco Department of Radiology (2023) and collaborates actively with academic partners, including UC Davis, Lawrence Berkeley National Laboratory, University of Coimbra, Paul Scherrer Institute (Switzerland), Czech Technical University in Prague, and German Cancer Research Center (DKFZ, Heidelberg), and also with industry (CAEN SpA, EXATRONIC, and RI-TE LDA). His research focuses on radiation detector instrumentation, preclinical PET and SPECT systems, Monte Carlo simulation, and AI-driven image reconstruction. He is co-inventor of the EasyPET international patent (US20180070893A1), commercialized by CAEN SpA and RI-TE Radiation Imaging Technologies LDA, of which is also co-founder. He has authored 40+ peer-reviewed publications (h-index 11, Scopus), has supervised over 35 students at BSc, MSc, and PhD levels, including co-supervisions with international institutes, and has been awarded the IEEE NPSS Conference Trainee Grant five times, being a regular presenter at the IEEE NSS/MIC conference since 2016.

Statement: The IEEE Nuclear Science Symposium and Medical Imaging Conference has been central to my scientific career since 2016, being the main conference where I presented my research, built lasting international collaborations, and developed as a scientist in the nuclear medical imaging community. Receiving the IEEE NPSS Trainee Grant five times is representative of the support this community has given me. My engagement with the conference has grown over the years: my students are now also regular attendees, including two Jordanov grant awardees, and the conference has opened the possibility to establish new contacts and networks, which allowed some students to carry out research activities at foreign institutes. People are the most important part of our community, and I believe that encouraging diverse activities within the MIC will be a key aspect of sustained community growth. With the rise of AI, we need to find ways to engage researchers from different institutes in a more personal way, and especially to provide tools for the development of individuals, particularly those with fewer financial resources. I fell I can positively contribute to the committee that shapes the conference. My research covers a broad spectrum of topics directly relevant to the MIC programme—instrumentation of preclinical PET and SPECT, hadrontherapy monitoring, targeted radionuclide therapy, and AI-based methods—positioning me well to evaluate and promote high-quality, cutting-edge science. If elected, I will put efforts in strengthen the education and development of instrumentation and detector technology, encourage the participation of early-career researchers from under-represented regions, and support the ongoing efforts to improve the conference's sustainability and initiatives.

NIKOLAOS EFTHYMIOU (GSM'13-M'14-AF'16-M'18-SM'26) is a Senior Scientist in Nuclear Medicine and Molecular Imaging at the University Medical Center Groningen, the Netherlands. He received his Ph.D. in medical imaging with a focus on small animal positron emission tomography instrumentation ans has since then contributed extensively to the development, validation and application of quantitative PET reconstruction methods. Dr. Efthymiou's research focuses on PET image reconstruction, time-of-flight PET, motion correction, Monte Carlo simulation, long axial field-of-view PET, and open-source software for nuclear medicine imaging.

Dr. Efthymiou has made significant contributions to the Software for Tomographic Image Reconstruction library, STIR, including the implementation and validation of novel time-of-flight PET reconstruction. His work also includes the integration of scanner-specific geometries and vendor data workflows for advanced systems, including long axial FOV PET/CT. More recently, he has been exploring modern computational frameworks for accessible image reconstruction for long axial FOV PET scanners.

His research interest further includes motion detection and correction, quantitative harmonization across imaging centers, and the use of Monte Carlo simulations for detector and reconstruction studies. Has been involved in international collaborations with academic and clinical research groups and contributes to open-source and community-driven software development in nuclear medicine. Dr. Efthymiou is an IEEE Senior Member and regularly contributes to the IEEE NSS/MIC through presentations, reviews and workshop/Hackathon organization. Dr Efthymiou has coauthored more than 38 original research papers and 22 IEEE NSS/MIC presentations.

Statement: My work in nuclear medicine sits at the interface of physics, computation, instrumentation, and clinical translation. IEEE NSS/MIC has been a key venue for presenting my research, learning from colleagues, and building international collaborations. I am seeking nomination to NMISC to contribute more actively to a community that has strongly shaped my scientific development. A central theme of my career has been translating advanced PET methodology into usable and reproducible tools. Through my work on STIR, time-of-flight PET reconstruction, Monte Carlo simulation, scanner modelling, motion correction, and long axial field-of-view PET, I have become convinced that molecular imaging advances depend not only on new algorithms, but also on whether methods can be validated, shared, compared, and adopted by others. This is increasingly important as the field moves toward low-dose total-body PET, dynamic imaging, AI-assisted reconstruction, and more sophisticated correction pipelines.

If elected, I would like to help NMISC strengthen IEEE NSS/MIC as a leading forum for rigorous, open, and practically useful molecular imaging science. I would particularly support activities that make reproducibility actionable: focused sessions on data and method sharing, practical guidance on reporting reconstruction and correction workflows, and discussion of how collaboration can be enabled across different regulatory environments. In this way, the conference can be more than a place where results are presented; it can also become a place where methods are made understandable, testable, and reusable by the wider community.

I would also like to help broaden participation in IEEE NSS/MIC in a more deliberate way. Hybrid attendance has improved access, but representation remains limited from several regions, including parts of Africa and West Asia. NMISC could play an important role in identifying barriers to participation, supporting targeted outreach, and creating clearer entry points for scientists from historically underrepresented regions. This would not only make the conference more inclusive, but also scientifically stronger by bringing in different clinical needs, technical constraints, and research perspectives.

Finally, I believe NMISC should help open a thoughtful discussion on the environmental footprint of emerging molecular imaging technologies. Long axial field-of-view PET scanners offer major scientific and clinical opportunities, including lower-dose imaging and improved dynamic studies. At the same time, their development raises questions about manufacturing, resource use, detector materials, and rare-earth supply chains. I would like to help create a balanced forum where these issues can be discussed constructively, alongside performance, accessibility, and clinical benefit.

TRANG HOANG (M'21) has been a Lecturer in the Department of Nuclear Physics, Nuclear Engineering, and Medical Physics at the University of Science, Vietnam National University Ho Chi Minh City since 2013. She has been deeply involved in medical imaging research and the development of enhanced simulation software for PET imaging. Particularly, her expertise spans medical image processing, AI applications in medical imaging, and Monte Carlo simulations. Notably, she served as Project Manager for a 4DCT Lung image registration project and co-developed the university's medical physics group. Within the IEEE Nuclear and Plasma Sciences Society (IEEE-NPSS), Trang currently serves as the Chair of the Transnational Committee (2025–2028). Her leadership within IEEE NPSS includes managing the Nuclear Physics Virtual Laboratory (NuVirLab) project (2022–2024) and contributing to the Educom PET project (2026–2028). She dynamically advances the field globally by organizing international summer schools and workshops, delivering lectures, and promoting diversity through Women in Engineering (WIE) and Young Professional (YP) activities. Indeed, she is part of the recently formed YP Committee and has already engaged in several international activities in which her role was key to ensure the success and engagement of the young generations of IEEE members.

Statement: As a Lecturer in Nuclear Engineering and Medical Physics and the current Chair of the IEEE-NPSS Transnational Committee (2025–2028), my career is dedicated to advancing medical imaging and fostering international scientific collaboration while engaging the next generation of IEEE professionals. My research specializes in medical image processing, AI applications, and Monte Carlo simulations. Beyond research, I am deeply committed to the educational and outreach missions of IEEE-NPSS. I have actively served on the organizing committees for several international summer schools, including the 2022 ICISE School for Medical Physics in Quy Nhon, the 2025 IEEE-NPSS EDUCOM International Summer School for Medical Physics in Vietnam, and the 2025 IEEE-NPSS School on Nuclear Instrumentation and Applications for Society in Mexico. Through these contributions, I have successfully bridged cutting-edge imaging science with global scientific communities, particularly in Vietnam. Serving on the NMISC aligns perfectly with my commitment to contributing to the success of the annual NSS/MIC conferences. I look forward to bringing a diverse, transnational perspective to the council and expanding our global professional network to ensure the continued excellence and inclusivity of our community.

HAN GYU KANG (S'13-AM'14-GSM'16-M'17) Dr. Han Gyu Kang is a researcher at the National Institutes for Quantum Science and Technology (QST) in Japan. He obtained his BS (2012), MS (2014), and Ph.D. (2018) degrees at Eulji University in South Korea under the supervision of Prof. Seong Jong Hong. In Korea, Dr. Kang focused his research on SiPM-based TOF-DOI detectors, PET/MR scanners and hybrid optical/gamma laparoscope, which led him to win the presidential prize from Eulji University twice (2016, 2017) and the award from the Deputy Prime Minister of Korea (2019).

In 2018, Dr. Kang has joined Yamaya-Lab at QST in Japan. Dr. Kang has developed various state-of-the-art preclinical PET scanners such as 1) submillimeter-resolution PET (2023 JNM), 2) sub-0.5 mm resolution PET (2025 IEEE TMI, 2026 JNM), and 3) sub-second temporal resolution PET (2025 PMB). Dr. Kang has been collaborating with LMU for SIRMIO PET, and Tohoku University for whole-gamma-imaging.

Dr. Kang has published 44 peer-reviewed papers (21 first authors, 3 corresponding authors, and 20 co-authors) and a book chapter, including 6 patents. In 2023, Dr. Kang received the Bruce Hasegawa Young Investigator Award and Edward J. Hoffman Grant in recognition of his significant contribution to the medical imaging field. Currently, Dr. Kang is focusing on pushing the fundamental limit of PET resolution under 0.2 mm with quantum technology to revolutionize molecular neuroimaging research.

Statement: I first attended the 2013 IEEE MIC in Seoul as a master student with the role of volunteer and poster presenter of the conference. Since then, I have contributed to the IEEE MIC with multiple presentations almost every year (total 10 orals and 28 posters as first author). I also contributed to the GATE User's meeting (7 talks) and the STIR User's meeting (1 talk) as first presenter. Since 2020, I have participated into the GATE training courses as a lecturer in Japan, Europe, and Vietnam. In 2023 IEEE MIC, I served as a short course lecturer for GATE simulations. Since 2021 I have served as session chairs and topic reviewers for MIC and NSS sessions. I also have served as an associate editor for IEEE TRPMS. In 2025 IEEE MIC Yokohama, I served as a volunteer at IEEE membership booth by support of Membership-to-Leadership Travel Grant. It would be my great pleasure to expand my contribution to IEEE Nuclear Medical and Imaging Sciences (NMISC) as a member. If elected, I will devote myself to support young students and early career researchers in terms of educational and career perspectives. Finally, I will support NMISC chairs and existing members to expand the research impacts from our community to worldwide.

NEGAR OMIDVARI (GSM'15-M'18) is an Assistant Professor in the Department of Radiology at the University of California, Davis. She received her B.S. degree in Electrical Engineering from the University of Tehran, Iran, in 2011, her M.S. degree in Biomedical Engineering from RWTH Aachen University, Germany, in 2013, and her Ph.D. degree in Physics from the Technical University of Munich, Germany, in 2018 before joining Dr. Simon Cherry's group at UC Davis for her postdoctoral training. Her research interests include developing quantitative in vivo molecular imaging techniques for studying the human immune system and clinical translation of these methods. Her current work is focused on applications of T cell imaging radiotracers and uses tracer kinetic modeling with total-body PET technology for quantitative assessment of immune response in various disease conditions. Dr. Omidvari currently serves as Principal Investigator on three clinical molecular imaging studies, including an NIH R01-funded investigation of immune activation in long COVID using multiparametric total-body PET imaging. She has authored and co-authored more than 25 peer-reviewed publications with more than 1,400 citations. She has received several awards, including the 2025 SNMMI Tracy Lynn Faber Award, the 2025 UC Davis Excellence in Research Award, 2021 SNMMI Ones to Watch recognition, the 2018 IEEE Glenn F. Knoll Graduate Scholar Award, and the 2017 IEEE Valentin T. Jordanov Radiation Instrumentation Award.

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, service to the IEEE NSS/MIC community through conference participation, peer review, and scientific contributions has been an important component of my professional activities. I have consistently presented my work at IEEE NSS/MIC and served on the IEEE NSS/MIC abstract review committee and the student poster award review committee. In addition, I regularly review manuscripts for IEEE TRPMS, TMI, and TNS and other leading journals in medical imaging. As an investigator working at the intersection of imaging methodology and clinical translation, I have witnessed the important role that NMISC plays in advancing innovation and supporting the next generation of researchers. If elected to the NMISC Executive Committee, I will work to strengthen engagement across career stages, promote opportunities for students and early-career investigators, foster interdisciplinary collaboration, creating platforms for mentorship and professional development, and support educational initiatives that help expand participation in our field.

JOSH SCHAEFFERKOETTER (M'22-SM'25) is a Senior Staff Scientist at Siemens Medical Solutions Inc. He earned his PhD from the University of Tennessee for work evaluating the effects on lesion detectability of time-of-flight and point spread modeling in PET reconstruction. He then served as a post-doctoral researcher with the Clinical Imaging Research Centre in Singapore investigating various clinical applications for low-dose screening, multi-parametric imaging and tracer kinetic modeling on both PET/CT and PET/MR. After his post-doc, he accepted a position at Toronto General Hospital with research focused on motion correction and tracer modeling for clinical PET data as well as deep learning for improving PET quantification and image quality. Since 2020, he has been a part of the Physics and Reconstruction Research Group with Siemens in Knoxville where he works primarily on AI topics focused on improving the quality and accuracy of clinical PET imaging. Dr. Schaefferkoetter authored and co-authored more than 20 peer-reviewed articles and more than 50 presentations. He is an IEEE Senior Member.

Statement: My research has focused on PET physics and the extension of novel imaging technology for medical applications. My specific areas of interest have included investigations of the effects of image quality on lesion detectability and dynamic PET and pharmacokinetic modeling. Recently I have been involved in applications based on artificial intelligence and deep learning for improving various aspects related to the quality and quantification of reconstructed PET images including motion correction, attenuation and scatter correction, image generation and denoising, scanner calibration and system normalization. My scientific career has been influenced by both the academic and industry sectors, and I am motivated to address the challenges associated with the translation of new techniques into applications which are practical and relevant for the clinical setting.

GEORG SCHRAMM (M'16) is an Assistant Professor of Molecular Image Reconstruction and Analysis in the Department of Imaging and Pathology at KU Leuven, Belgium. He received his Diploma in Physics from TU Dresden in 2011 (ranked among the top five graduates of the Faculty of Science) and his Ph.D. in Medical Imaging from TU Dresden / Helmholtz-Zentrum Dresden-Rossendorf in 2015 with the highest distinction (summa cum laude) for work on attenuation correction in PET/MR. He then joined the lab of Prof. Johan Nuyts at KU Leuven for a seven-year postdoctoral training on advanced image reconstruction for molecular

imaging, including structure-guided PET reconstruction, before spending a year as a visiting Instructor in the lab of Prof. Fernando Boada at Stanford University working on anatomy-guided sodium MR reconstruction. His research focuses on physics-based modeling, large-scale optimization, and machine-learning methods for PET, SPECT, and MR image reconstruction, with a strong emphasis on translation to the clinic and on sustainable, open-source scientific software. Dr. Schramm has authored or co-authored more than 50 peer-reviewed publications (12 as first author) and his work has been recognized with the PhD Award of Helmholtz-Zentrum Dresden-Rossendorf (2014), the award for notable achievements in nuclear medicine of the German Society of Nuclear Medicine (2014), and most recently as winner of the SyneRBI PETRIC PET reconstruction challenges (2024 and 2026) and runner-up of the ultra-low-dose PET denoising challenge (2025). He is an IEEE member.

Statement: I am a member of the IEEE Nuclear and Plasma Sciences Society community, consistently presenting my work at the IEEE Nuclear Science Symposium and Medical Imaging Conference (NSS-MIC) and contributing as an abstract reviewer, session chair, and co-organizer of focused workshops on image reconstruction. Winning the SyneRBI PETRIC reconstruction challenge in 2024 and being runner-up of the ultra-low-dose PET denoising challenge in 2025 — both anchored in the NSS-MIC community — reinforced my commitment to open, reproducible, and benchmark-driven research in our field. If elected to the NMISC, I would work to (i) strengthen open-source software, open data, and reproducible benchmarking as a recognized part of the MIC scientific program, (ii) modernise the NSS-MIC abstract and proceedings submission workflow so that reviewer effort is used more efficiently and the conference again produces substantive, full-length proceedings rather than today's short abstracts — e.g. by piloting modern peer-review platforms such as OpenReview. With a background bridging physics, applied mathematics, and clinical molecular imaging at three different institutions in Belgium, Germany and the U.S., I would be honored to contribute this perspective to the work of the NMISC.

REZA TEIMOORISICHANI (GSM'16-M'18) Dr. Reza Teimoorisichani is a Research Scientist at Siemens Healthineers in Knoxville, Tennessee, where he develops advanced PET imaging technologies with emphasis on image reconstruction, quantitative correction methods, and next-generation PET system design. His research focuses on translating innovations in physics, mathematics, and instrumentation into clinically deployable imaging solutions that improve diagnostic performance and workflow efficiency. Throughout his career, Dr. Teimoorisichani has collaborated extensively with academic, clinical, and industrial partners on the development and evaluation of novel PET technologies. He has authored numerous peer-reviewed publications in leading journals, including the Journal of Nuclear Medicine and Physics in Medicine & Biology, and has contributed to several patent disclosures and technical innovations in nuclear medicine imaging. Dr. Teimoorisichani is an active participant in the IEEE Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC), where he regularly presents his research through oral and poster contributions. He also serves the imaging community as a reviewer for major journals and conferences in nuclear medicine and medical imaging. Through both his research and professional service activities, he remains committed to advancing the scientific and clinical impact of molecular imaging technologies.

Statement: I am seeking election to the Nuclear Medical and Imaging Sciences Council (NMISC) because I value the important role that the committee plays in guiding the technical direction and long-term success of the IEEE NSS/MIC community. As an active participant in the conference and a researcher working at the intersection of imaging science, engineering, and clinical application, I would welcome the opportunity to contribute to the continued growth and impact of NMISC. My professional experience in industry provides a perspective that complements the strong academic foundation of the imaging community. I am particularly interested in fostering collaboration among hardware developers, reconstruction scientists, algorithm researchers, and clinical investigators to accelerate the translation of promising research into practical imaging solutions. I believe NMISC can play a key role in encouraging interactions that strengthen the connection between fundamental innovation and real-world clinical impact. If elected, I will support initiatives that promote technical excellence, broaden engagement across academia and industry, and help create opportunities for early-career scientists and engineers. I am especially interested in encouraging participation from emerging researchers and facilitating pathways for translating innovative ideas into technologies that ultimately improve patient care. I would be honored to contribute my experience and perspective to the committee and to help support the continued success of the IEEE NSS/MIC community.

JING WU (GSM'13-M'14) is a Professor in the School of Physics and Astronomy at Beijing Normal University. She received her Ph.D. in Nuclear Science and Technology from Tsinghua University, China. She then completed her postdoctoral training in Dr. Chi Liu's group at Yale University, where she was later promoted to Associate Research Scientist. Dr. Wu's research focuses on quantitative SPECT and PET imaging, with an emphasis on dynamic imaging and tracer kinetic modeling for cardiac SPECT and PET, and partial volume correction for both static and dynamic imaging. She has developed dynamic imaging and tracer kinetic modeling approaches for multiple novel cardiac tracers. She has also developed a novel parametric Ki imaging approach using dual-time-point FDG PET scans and applied it to patients with cardiac sarcoidosis to complement SUV images. Her current research further extends to quantitative image reconstruction and dosimetry calculation methods for yttrium-90 and lutetium-177. Dr. Wu has authored and co-authored more than 40 peer-reviewed articles and more than 50 presentations. She has received 12 research grants as principal investigator. She has received SNMMI Ones to Watch in 2022 and the Tracy Lynn Faber Award in 2026. She currently serves on the editorial board of the EANM Journal.

Statement: I have been working in nuclear medicine and molecular imaging for more than 15 years, with a career centered on developing quantitative PET and SPECT imaging methods that connect physics, engineering, and clinical applications. Through this

work, I have developed a strong interest in advancing methodological innovation and translating imaging technologies into clinically meaningful tools. I have contributed to the IEEE Nuclear Medicine and Imaging Sciences community by consistently presenting my work at the IEEE Nuclear Science Symposium and Medical Imaging Conference, and by reviewing manuscripts for IEEE Transactions on Medical Imaging and IEEE Transactions on Radiation and Plasma Medical Sciences. Although I have not previously held an elected IEEE position, these experiences have strengthened my appreciation for IEEE's role in promoting rigorous research, scientific exchange, and international collaboration. If elected, I would be enthusiastic to contribute more actively to the community. I hope to support high-quality scientific programming, promote diversity and broader international participation, create opportunities for young investigators, and help strengthen educational content in quantitative molecular imaging and theranostic dosimetry. I would be honored to serve and contribute to the continued growth and impact of the IEEE Nuclear Medicine and Imaging Sciences community.

BO ZHOU (GSM'20-M'24) is a Assistant Professor of Radiology at Northwestern University and Director of the Advanced AI in Medicine and Physics Lab (AIMP-Lab). He received his PhD in Biomedical Engineering from Yale University, an MS in Computer Vision from Carnegie Mellon University, and an MS in Biomedical Engineering from Case Western Reserve University. Dr. Zhou's research focuses on advancing artificial intelligence and computational methods for biomedical imaging, with the overarching goal of improving both image formation and image understanding across clinically impactful applications. His work spans accelerated imaging, low-dose imaging, artifact reduction, image reconstruction, segmentation, detection, registration, and multimodal data integration, with applications in PET/CT, PET/MRI, SPECT/CT, and related medical imaging modalities. Dr. Zhou is the recipient of the IEEE Bruce H. Hasegawa Medical Imaging Science Young Investigator Award from the IEEE Nuclear and Plasma Sciences Society (NPSS), the Harding Bliss Prize from Yale University, and the SNMMI Ones to Watch Award. He has authored and co-authored more than 100 peer-reviewed publications and actively contributes to the scientific community through editorial, peer-review, and conference service. He currently serves as Associate Editor for Medical Image Analysis and Guest Associate Editor for IEEE Transactions on Medical Imaging.

Statement: My research focuses on advancing artificial intelligence and computational methods for biomedical imaging, with particular interests in nuclear medicine and molecular imaging. Over the past several years, I have engaged with the IEEE Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC) community through presenting research and participating in scientific exchange within IEEE NPSS. Receiving the IEEE Bruce H. Hasegawa Medical Imaging Science Young Investigator Award was a meaningful milestone that strengthened my connection to the NPSS community and reinforced my appreciation for the collaborative and translational culture of MIC. It also motivated me to contribute beyond research and become more involved in supporting the imaging community. In addition to research, I contribute through editorial and peer-review service, including roles as Associate Editor for Medical Image Analysis and Guest Associate Editor for IEEE Transactions on Medical Imaging. These experiences have provided broad exposure to emerging directions in imaging science and the value of building rigorous and inclusive scientific communities. If elected, I would be honored to serve NMISC by supporting scientific excellence within MIC, strengthening engagement in emerging areas such as AI and computational imaging, and creating opportunities for students and early-career investigators while helping sustain NSS/MIC as a leading venue for innovation in nuclear and medical imaging sciences.