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IRPS Bulletin

Newsletter of the International Radiation Physics Society

33 Years of IRPS Presidents. Clockwise from the top right: John Hubbell, Bikash Sinha, Malcolm Cooper, Richard Pratt, Dudley Creagh, Odair Goncalves, Ladislav Musilek, Christopher Chantler, David Bradley, Isabel Lopes

Information about earlier Presidents is given on page 2.

Current IRPS Council Members 2021-2024

Contents of this Journal

Editorial

This issue is concerned primarily with the election of members of the Council of our Society. It contains brief profiles of the careers of prospective members of YOUR council so that you may better understand the spread of expertise in the diverse research fields encompassed by the name, *Radiation Physics*.

As well the dates and enrolment details for two major conferences are announced.

1. ISRP-16 (2024, Lisbon) - Luísa Carvalho/Isabel Lopes
2. IRRMA-12 (2025, Riyadh) - Mohammed Alkhorayef

We reiterate that the strength of the society lies in its diverse interests across all facets of radiation physics: from Astronomy to Zoology. The Bulletin warmly invites contributions from all society members to highlight recent research within their respective fields of radiation physics.

In this we celebrate the successes of members who have received awards for the work that they do. And we celebrate the life of people who have contributed significantly to our society. See the obituary for Robyn Gardiner (Page 4).

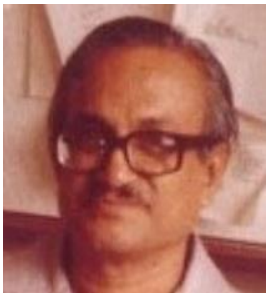
Dudley, Shirley and I wish all standing members all the best!

Editorial Team

Ming Chew (chew00183@gmail.com)

Dudley Creagh AM (Dudley.Creagh@canberra.edu.au)

Shirley McKeown (Samsam.sm79@gmail.com)



Additional Information about Presidents of our Society

The *founding fathers* of the IRPS were **Professor A M Ghose** (top left) and **John Hubbell** (the 3rd President), on the top right is **Dr Dan Beninson**.
The first President was **PK Iyengar** (on the right) who served two terms (1985 to 1991).

From the President

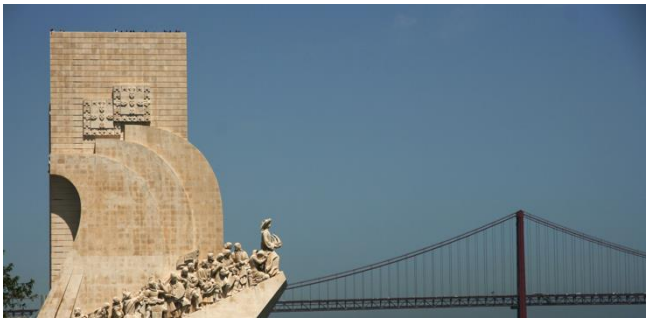
Dear Colleagues,

It is time to hold elections for the IRPS Council. I would like to start by thanking the candidates for agreeing to stand in these elections and the election committee for organizing everything.

In this Bulletin, you will find the election slate and the CVs of the nominees. Please read them to become better acquainted with the candidates. You will also find the election ballot form and instructions for voting. All the Society members may vote. Please review the documents and return your votes to the returning officer as instructed. Your vote is very important for the Society.

In early September 2024, from the 1st to the 5th, the 16th International Symposium on Radiation Physics (ISRP-16) will take place in Lisbon, Portugal. This will be the second time the symposium is held in Portugal; the first was in 2006 in Coimbra for ISRP-10. I have excellent memories of that conference. It was a topical, dynamic, and vibrant meeting with much discussion. I believe ISRP-16 will be the same. There is a promising set of invited talks, as well as many contributed talks and posters covering the main areas of Radiation Physics.

Participants are invited to submit manuscripts based on ISRP-16 presentations for publication in the Radiation Physics and Chemistry journal. Finally, Lisbon is a very pleasant city, situated at the estuary of a river, and with several beaches nearby. It is one of the oldest capital cities in Europe, boasting a rich cultural heritage spanning more than 10 centuries.



I hope to meet you all there.
See you at ISRP-16 in Lisbon.

Isabel Lopes

Member Obituary

A Brief Remembrance of Robin P. Gardner

Robin Pierce Gardner was born in Charlotte, NC, on 17 August 1934, and died on 10 May 2024. In high school, he played basketball (he was a tall man), and baseball. As an adult, he was a standout tennis player, well into his eighties. He received bachelor's and master's degrees from North Carolina State University (NCSU) in Chemical Engineering and then attended Pennsylvania State University, where he earned his PhD in Fuel Technology. He devoted his research career to radiation applications, Monte Carlo methods, and radiation physics. He was the primary author of the popular textbook *Radioisotope Measurement Applications in Engineering* (Reinhold, 1967).

After brief stays at Oak Ridge Institute of Nuclear Studies and Research Triangle Institute, he entered academia as professor of Nuclear Engineering and Chemical Engineering at NCSU, in 1967. He retired as Emeritus Professor in 2019. In 1980, he established the NCSU Center for Engineering Applications of Radioisotopes, which he directed until his retirement. He has a long list of honors and awards, notable among them the Radiation Industry Award of the American Nuclear Society (1984), the Alcoa Foundation Distinguished Research Award from the NCSU School of Engineering (1986), the Glenn Murphy Award for Nuclear Engineering Education from the American Society for Engineering Education (2009), and the Arthur Holly Compton Award from the American Nuclear Society (2008). Robin was elected Fellow of the American Nuclear Society in 1991.

I was his first Ph.D. Student (in Nuclear Engineering) out of a total exceeding 35. I learned from him about radiation gauging, radioactive and activable tracing, quantitative analysis, Monte Carlo methods, and radiation transport. During my time as his student, I co-authored eight of his over 240 scientific publications.

Of most relevance to the International Radiation Physics Society (IRPS) is the fact that Robin initiated the Industrial Radiation and Radioisotope Measurement Applications (IRRMA) series of conferences.

The first was held in Pinehurst, North Carolina, in 1988. The meeting was endorsed by the Isotopes and Radiation Division (ISD) of the ANS. The next two IRRMAs were held in Raleigh, North Carolina, in 1992 and 1996, and were again initiatives of the ANS IRD.

There was no official organization behind the first few IRRMAs, but Robin was the primary organizer and I and others were involved. After IRRMA 3, Robin suggested that we shorten the time between IRRMAs to three years and we host alternate meetings in North America and overseas. IRRMA 4 again was held in Raleigh, NC, in 1999. The very successful IRRMA 5 was held in Bologna, Italy, under the able leadership of Professor Jorge Fernandes, in 2002. Thereafter, IRRMA 6 was held in Hamilton, Ontario, in 2005, IRRMA 7, was held in Prague in 2008, IRRMA 8 was held in Kansas City, MO, in 2011, IRRMA 9 was held in Valencia, Spain, in 2014, and IRRMA 10 was held in Chicago, IL, in 2017. IRRMA 11 was scheduled to be held in Moscow but was cancelled due to the COVID 19 pandemic. Eventually IRRMA 11 was held again at the University of Bologna in 2023 . A formal relationship between ISRP and IRRMA was voted on by the membership in 2014 and IRRMA 9 was the first IRRMA to be sponsored by ISRP. Robin Gardner served as the first IRPS Vice President for IRRMA.

Dr. Robin P. Gardner was a valued mentor and a close personal friend. He will be missed by the IRSP community, and his many contributions will be long remembered.

William L. Dunn
IRPS Vice President, IRRMA

IRPS ELECTION NOMINEES 2024-2027

President [to be elected, 3 year term]:
Jorge Fernandez (Italy)

Immediate Past-President [not elected, continuing]
Isabel Lopes (Portugal)

Regional Vice-Presidents [to be elected, 3 year term]
David Bradley (UK, Malaysia) [Western Europe]
Ladislav Musilek (Czech R.) [Central and Eastern Europe]
Sultan Dabagov (FSU) [Former Soviet Union]
Ron Tosh (USA) [North America]
Hitoshi Abe (Japan)
Yu-Hui Dong (P. R. China) [North-East Asia]
Mohamed Gomaa(Egypt) [Africa]
Chanh Tran (Australia) [Australasia and Oceania]
William Dunn (USA) [IRMMA, Industrial Applications]
Hector R. Vega-Carrillo (Mexico) [Central and South America]
Mohammed Alkhorayef (Saudi Arabia) [Middle East]

Secretary
Tomas Trojek (Czech Republic)

Treasurer
Amir Bahadori (USA)

Membership Officer
Eric Shirley (USA)

Other Positions (elected by the IRPS Council)
Editor of the Bulletin
Ming Tsuey Chew (New Zealand)
Dudley Creagh AM (Australia)
Shirley McKeown (Australia)
(volunteers to be sought to assist)

Web Manager
Chanh Tran (Australia)
(other members to be invited at a later date)

Executive Councillors [to be elected, 6-year terms]
Mark Bailey (Denmark)
Zdravko Siketic (Croatia)
Pedro Vaz (Portugal)
Richard P. Hugtenburg (UK)
Pinit Kidkhunthod (Thailand)
Jakrapong Kaewkhao (Thailand)

Executive Councillors [continuing for another 3 years]
Avneed Sood (USA)
Christopher Chantler (Australia)
Esam Hussein (Canada)

Profile of Immediate Past President
Isabel Lopes

Isabel Lopes, Full Professor of Physics
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I am Full Professor at the Physics Department of the University of Coimbra, Portugal, and researcher at the Laboratory of Instrumentation and Experimental Particle Physics (LIP). Since 2018, I have been a member of the Board of Directors of LIP.

I have worked in the field of radiation physics for more than thirty years. I was invited researcher of the Hahn-Meitner Institute, and I was awarded a one-year fellowship from the Japan Society for Promotion of Science (JSPS) as researcher at Waseda University, Tokyo.

My research has been focused on the R&D of liquid-rare-gas radiation detectors from the point of view of both the physics processes involved in the radiation detection and their applications to the search of dark matter, nuclear medical imaging and particle experiments. From 2002 onwards, I have been mostly dedicated to the direct detection of dark matter, first in the framework of ZEPLIN-III Project and since 2010 within the LUX and LUX-ZEPLIN (LZ) experiments.

My main areas of expertise are particle detectors, radiation physics, dark matter search and medical physics. I am also very interested and engaged in science education, high education policies, scientific literacy and physics outreach.

I lead a research group presently counting with 9 members, including junior researchers, graduate and undergraduate students. I have been Principal Investigator of more than 20 funded research projects.

I am author or co-author of about 220 publications with more than 10000 citations, including two renowned papers (500+ citations). My list of publications is available at http://www.researchgate.net/profile/M_Lopes/publications.

I have served as member of the Executive Councils of the LUX e LZ Collaborations and of evaluation panels of funding agencies of Switzerland, Spain, Germany and Portugal.

I am Associate Editor of Physics and Chemistry Journal, Elsevier.

I have also participated in the Stakeholders Tune European Physics Studies Network and in the CHERNE education network, as I am deeply engaged in physics teaching and science education.

Profiles of Election Candidates

Profile of member standing for President
Jorge Fernandez

Jorge Eduardo Fernandez
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Professor Jorge Eduardo Fernandez has completed his studies at the Faculty of Mathematics, Astronomy and Physics of the State University of Córdoba, Argentina, earning the Licentiate Degree in Physics (1977), and the Ph.D. in Physics (1985). He obtained the acknowledgement for his Licentiate Degree in Physics earning the corresponding Italian Degree "Laurea in Physics" at the University of Bologna (1991). He started his academic career in Argentina in 1985 as research staff of CONICET and Adjunct Professor of Physics at the State University of Cordoba, Argentina. In 1987 he moved to the University of Bologna in Italy for a postdoc. He became Assistant Professor of Measurements and Nuclear Instrumentation in 1994 and Associate Professor of Nuclear Reactor Physics in 2001. In 2012 got the national acknowledgement for the full professorship of Nuclear Reactor Physics.

He was appointed as Head of the Buenos Aires Campus of the University of Bologna (Centro de Altos Estudios de la Universidad de Bologna) for the term 2016-2022. After his retirement in 2023, he was nominated Professor Alma Mater.

Jorge is an Affiliated Researcher of the Italian Interuniversity Consortium on Structure of Matter CNISM (CNR) and Associate Researcher of the Italian National Institute of Nuclear Physics (INFN).

Teaching activities have included lectures in MSc and PhD courses on applied nuclear technologies and supervising of MSc and PhD theses. At present he teaches Transport of particles and radiation, at the University of Bologna.

His main research interests are: X-ray interactions, X- and Gamma-Ray photon transport, multiple scattering of photons, polarization effects, detailed description of the X-ray spectrum, detailed description of the detector response function, and spectrum unfolding from detector influence.

Jorge has published some 130 articles in scientific journals, several as invited contributions. Editor of two topical books (Energy Dispersive X-Ray Spectrometry (Bononia University Press, Bologna, 1999) and Radiation Physics for Preservation of the Cultural Heritage (Clueb, Bologna, 2002).

As well, Professor Fernandez is Editor of two scientific journals, *Applied Radiation and Isotopes* (Elsevier) and *X-Ray Spectrometry* (John Wiley & Sons).

He has been Guest Editor of Special Issues for several journals

- *Nuclear Instruments and Methods A* (Elsevier),
- *Nuclear Instruments and Methods B* (Elsevier),
- *Radiation in Physics and Chemistry* (Elsevier),
- *Rendiconti Lincei. Scienze Fisiche e Naturali* (Springer),
- *X-Ray Spectrometry* (John Wiley).

He serves as a referee in his expertise areas for different scientific journals.

He chaired/co-chaired several international conferences, some co-organized with IRPS:

- 1998 *European Conference on Energy Dispersive X-Ray Spectrometry (EDXRS-98),* Bologna.
- *2002 International Meeting on Industrial Radiation and Radioisotope Measurement Applications (IRRMA-5), Bologna.*
- 2006 ISRP-10 and Workshop "Use of Monte Carlo Techniques for Design and Analysis of Radiation Detectors", Coimbra.
- 2014 *European Conference on X-Ray Spectrometry (EXRS-2014),* Bologna.
- 2017 *International Forum on Advances in Radiation Physics (FORUM-BA 2017)* Buenos Aires.
- 2019 *Forum Italia-Argentina 2019: Nuclear and Digital Technologies for Cultural Heritage and Applied Physics*, Buenos Aires.
- 2023 11th *International Meeting on Industrial Radiation and Radioisotope Measurement Applications (IRRMA-11),* Bologna.

Jorge is a member of the International Advisory Committee of the European Conferences on X-Ray Spectrometry (EXRS). He has covered different positions at the *International Radiation Physics Society (IRPS) Council:* Executive Councillor (2003-2006), Vice President (Western Europe) (2007-2012, 2021-2024) and Secretary (2012-2021).

More information at: https://www.unibo.it/sitoweb/jorge.fernandez

Profile of member standing for Secretary
Tomas Trojek

Tomáš Trojek
Czech Technical University in Prague, Czech Republic
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Tomas Trojek is the head of the Department of Dosimetry and Application of Ionizing Radiation at the Czech Technical University (CTU) in Prague. He graduated in Nuclear Engineering in 2001 and defended his PhD thesis five years later at CTU.

A part of his PhD thesis was done at the ISIB in Brussels and at the UPV in Valencia. In 2021 he became a Full Professor in Applied Physics.

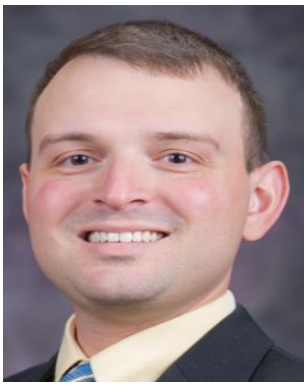
His research activities include Monte Carlo calculation of radiation transport in matter, radionuclides in environment, high energy physics, and X-ray fluorescence analysis (XRF) and its applications.

He has worked in the Laboratory of X-ray spectrometry at the CTU since 2001, where he was initially engaged with X-ray fluorescence analysis of art and archaeological objects. His further activities in this field are related to in-situ analysis and elimination of disturbing effects in quantitative data evaluation and he is promoting the use of Monte Carlo simulation in quantitative XRF analysis. At present, he is dealing with confocal XRF and other micro-XRF techniques.

Apart from the X-ray techniques, Tomas was also involved with monitoring of radionuclides in the environment. It included in-situ gamma spectrometry and laboratory analyses of samples. Last but not least, he has taken part in the experiment DIRAC in the CERN laboratory in Switzerland. The main goal of this experiment was to measure the lifetime of atoms made of Pi and K mesons.

He is the author or co-author of more than 80 papers published in international journals and he was awarded the CTU Rector's Award for excellent scientific results in the year 2010.

Tomas has been a member of IRPS for more than 14 years and the Secretary of the Society in the last 3-year period. He participated in organizing the conferences held in Prague, i.e. ISRP-8 (2000), IRRMA-7 (2008), and ICDA-1 (2013).



Profile of member standing for Treasurer
Amir Bahadori

Amir Bahadori
Radiation Engineering Analysis Laboratory
Kansas State University
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I graduated with the degree of Bachelor of Science degrees in Mechanical Engineering with Nuclear Engineering Option and Mathematics from Kansas State University in 2008 sand attended graduate school at the University of Florida, graduating in 2010 with a Master of Science degree in Nuclear and Radiological Engineering, and in 2012, receiving a Doctor of Philosophy degree in Biomedical Engineering. I was then employed at the NASA Lyndon B. Johnson Space Center from 2010 to 2015, with work focused on astronaut radiation risk projection and assessment, space radiation dosimetry using active pixel detectors, and space radiation transport using deterministic and Monte Carlo-based codes.

I returned to Kansas State University as an assistant professor in December 2015, where I teach courses in nuclear and radiological engineering and conduct research with focus areas in space radiation protection, radiation transport applications, and semiconductor detector modelling and simulation. Since 2015, I have been certified in the comprehensive practice of health physics by the American Board of Health Physics., I am a member of the Health Physics Society, American Nuclear Society, and the IEEE Engineering in Medicine and Biology Society. I am, as well, an associate of the Committee on Space Research of the International Council for Science.

Profile of Member standing for Vice-President (UK, Malaysia) Western Europe

David Bradley

David Bradley
Research Professor
Applied Physics and Radiation Technologies Group, CCDCU, Sunway University
&
Professor Emeritus, Centre for Nuclear and Radiation Physics,
Department of Physics,
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Honorary Professor UCL

David Bradley PhD (USM), MSc (London), BSc (Essex), F.Inst P., FIPEM, Professor Emeritus University of Surrey, previously Head of the Centre for Applied Physics and Radiation Technologies at Sunway University. During his career he has been Secretary of the International Radiation Physics Society (IRPS), and presently up until the time of ISRP16 its Immediate Past-President, also for some years Editor-in-Chief of the *British Journal of Radiology* (the oldest journal of radiology in the world) and the journals *Applied Radiation and Isotopes* and *Radiation Physics and Chemistry*. His interests in the fundamentals of radiation interactions have turned to applications in biomedical areas and industry, taking in development of luminescence dosimeters, with two companies born out of the latter (TrueInvivo in the UK and Lumisyns in Malaysia). Supervision of some 30 PhD students has engendered a number of collaborations. He has been cited some 13000 times and has a h-index of 56.

Profile of Member Standing for Vice-President, Central and Eastern Europe
Ladislav Musilek

Ladislav Musilek
Czech Technical University, Prague

Prof. Ladislav Musilek graduated from the Czech Technical University in Prague, Faculty of Technical and Nuclear Physics (renamed later to Nuclear Sciences and Physical Engineering), Prague, Czech Republic (specialisation: Dosimetry and Application of Ionising Radiation), gaining his PhD from CTU Prague in 1977.

In 1983 he became Associate Professor of nuclear and subnuclear physics (CTU Prague) and Professor of experimental physics (CTU Prague) in 1996. Appointments at the University included Vice-Dean, Dean, and Vice-Rector for Science and Research of the CTU in Prague.

Teaching activities have included lectures in MSc and PhD courses and supervising of MSc and PhD theses. He is a member of the commission for the defence of PhD theses in Nuclear Engineering and has significant participation in preparing programmes in radiation physics, dosimetry and application in the framework of Nuclear Engineering Courses at the Faculty.

His scientific and research activities have included:

- Technical applications of radionuclides, especially transmission and scattering of gamma-ray beams,
- Integrating dosimetry methods,
- Radioanalytical methods in the environment and in cultural heritage,
- Building a laboratory for applying methods of the exact sciences in historic monument research (funded by grants of the Ministry of Education, Youth and Sports of the Czech Republic).

Professor Musilek has authored/co-authored: 2 books; 5 chapters in books written by teams; over 150 scientific papers in journals and conferences; 7 Textbooks for students; 2 patents; he participated in preparing technical standards in a field of ionising radiation.

He has been member of a few scientific boards, he was a member of the External Advisory Group "Fission" in the EURATOM section of the EU 5th Framework Programme 2000-2002 and a representative of the Czech Republic in the Consultative Committee EURATOM-Fission of the EU 7th Framework Programme and a Czech expert in the Consultative Committee EURATOM-Fission of the EU Horizon 2020 Programme, he is a member of the Union of Czech Mathematicians and Physicists, and the Czech Society of Radiation Physicists in Medicine.

Profile of Member Standing for Vice-President, Former Soviet Union (FSU)
Sultan Dabagov

Professor Sultan Dabagov
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I began my research career in 1980, investigating surface effects in solids at the Kabardino-Balkarian State University, and completed my undergraduate work in the Dept. of Physics, Moscow State University and the I.V. Kurchatov Institute of Atomic Energy (KIAE), under the supervision of Prof. M.A. Kumakhov, head of the laboratory for Electromagnetic Interactions, KIAE.

My undergraduate and postgraduate research was mostly dedicated to the development of the quantum theory of coherent and incoherent scattering of relativistic electron beams in oriented crystals. During 1991-92 I performed studies at the Institute of Physics Astronomy (Aarhus University) at the invitation of Profs. J. Lindhard and J.U. Andersen. The joint research was devoted to the investigation of ion, neutron and electron beams scattering in high T superconductors (HTSC), especially channelling and channelling radiation of MeV- electrons in Y-Ba-Cu-O crystals, to be used as a novel technique for investigating characteristics of HTSC. In 1992 I was nominated as a Research Director at the International Institute for Roentgens (a former KIAE Laboratory), which aimed at the development of novel beams optics based on capillary/polycapillary systems.

From 1992 to 1995 I proposed and developed the wave theory for neutral particles passing through capillary structures (from micro/surface to nano/bulk channelling) that allowed new features of X-rays and thermal neutrons propagation in periodical structures to be predicted and observed successfully; within the project at the Hahn-Meitner Institute (by the invitation of Prof F. Mezei) together with Kumakhov, designed the first neutron capillary bender.

During 1994-1998 Dabagov led the project at the Laboratory for High Energy Electrons of P.N. Lebedev Physical Institute RAS by the invitation of Acads. O.N. Krokhin and V.L. Ginzburg that was dedicated to studying coherent phenomena in SR focussing by means of various capillary/polycapillary systems.

Since 1998 I have performed my research within the framework of the international projects on channelling of X-rays and neutrons in various capillary-based structures at the National Institute of Nuclear Physics (INFN) and led the group at the National Laboratories of Frascati (LNF).

Since 1990, I have participated in many Soviet Union, Russian, Former-Soviet States, European and USA conferences, workshops, and schools as a member of Advisory Boards, Program and Organizing Committees. He is the chairman of the International "Channelling" conference "Charged and Neutral Particles Channelling Phenomena" and the organizer of the international permanent seminar "Advanced Accelerator & Radiation Physics."

At present I am, *Dirigente di Ricerca*, INFN, the head of new LNF laboratory XLab Frascati, and Professor of National Research Nuclear University MEPhI.

Profile of Member Standing for Vice-President, North America
Ron Tosh

Ronald E. Tosh
Radiation Physics Laboratory
National Institute of Standards and Technology (USA)
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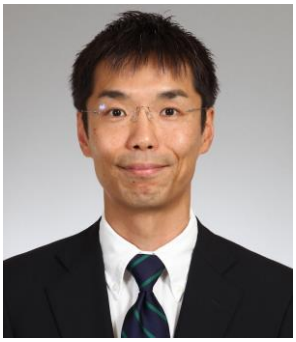
I work as a physicist in the Radiation Physics Division at the National Institute of Standards and Technology (NIST), working in the Dosimetry Group on standards and instrumentation for absorbed dose. I joined NIST in 2004 after several years as a sales engineer for National Instruments (now NI). Prior to that, I did experimental research in molecular-beam scattering as a postdoctoral researcher in the Department of Chemistry and Biochemistry at the University of Delaware. I was awarded an M.S. and later a Ph.D. degree in physics from the Department of Physics and Astronomy at the University of Pittsburgh, studying atomic physics and gaseous electronics.

Current projects at NIST include development of calorimetry standards for absorbed dose in beams of gamma rays, x-rays, electrons and protons used in medicine and industry. Research activities are focused on uses of acoustic and optical methods and photonic sensors for dosimetry in radiation fields with large spatial gradients and high dose rates, with applications in radiotherapy, irradiation of surfaces, and radiosensitivity of semiconductor microdevices and biological systems.

I have been with the International Radiation Physics Society since 2005 and coedited the IRPS Bulletin for 13 years. The past two decades have brought big changes to IRPS and the radiation physics landscape, with new facilities and conferences and faces moving the spotlight among academic institutions, metrology institutes, private industry, and broader stakeholder communities (including the general public). The variety of perspectives has helped us in different ways to weather the impacts on research, education and outreach efforts wrought by economic booms and busts and shifting political sands. This variety is the source of our strength and so I would hope to contribute as an IRPS Vice President for North America to realizing and enhancing opportunities for collaboration in research, educational outreach and fellowship.

Profile of Member Standing for Vice-President, Japan
Hitoshi Abe



Professor Hitoshi Abe
#1 Synchrotron Radiation Science Div.2 (at Photon Factory), Institute of Materials Structure Science, High Energy Accelerator Research Organization (KEK).
#2 SOKENDAI (the Graduate University for Advanced Studies).
#3 Graduate School of Science and Engineering, Ibaraki University.
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Professor Hitoshi Abe graduated from Department of Chemistry, Faculty of Science, the University of Tokyo. He completed and received a PhD from the University of Tokyo in 2008. In 2008, he was appointed as Assistant Professor in the Department of Chemistry at Keio University. In 2010, he became Associate Professor at Institute of Materials Structure Science (IMSS), High Energy Accelerator Research Organization (KEK). Also, he has been appointed as Associate Professor at Ibaraki University from 2019.

Teaching activities have included lectures for undergraduate and graduate students on physical chemistry and synchrotron radiation, and supervising of Bachelor, Master and PhD dissertations.

His scientific interests and research activities have included:

- Synchrotron radiation science and methods, mainly XAFS (X-ray Absorption Fine Structure).
- Surface/interface science using hard x-ray XAFS based method.
- Low dimensional materials
- Food science using XAFS and XRF

Professor Abe has published more than 100 scientific papers and given 25 invited talks. He also wrote and edited 3 books and chapters. He has received 13 research grants and projects, which is (~$750,000. in total. He is a member of the Executive Committee of International X-ray Absorption Society (IXAS) from July 2018. He is also a member of International Union of Crystallography (IUCr) Commission on XAFS from August 2021 and has played a secretary role from August 2023.

Profile of Member Standing for Vice-President, North-East Asia
Yu-hui Dong

Yu-hui Dong
Deputy Director
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I am the Deputy Director of Institute of High Energy Physics, Chinese Academy of Sciences. I am the executive member Biophysics Society of China, the director of Photobiology Committee and also the member of Chinese Crystallography Society and Macro-molecular Crystallography committee.

In 1990, I obtained B.S. in Physics in Sun Yat-Sen University (Zhongshan University), Guangzhou, China. I earned my Ph.D. in Physics in Beijing Synchrotron Radiation Facility, Institute of High Energy Physics, Chinese Academy of Sciences, Beijing, China, in 1995. During 1995-2000 I was Post-doctoral Research Associate at Institute of Physics, Chinese Academy of Sciences, Beijing, China and University of Trento, Italy.

In 2001 he became Professor of condensed matter physics in Institute of High Energy Physics, Chinese Academy of Sciences. Teaching activities have included lectures in MSc and PhD courses and supervising of MSc and PhD theses.

My research activities focus on the methodological research in structure determination of proteins and protein complexes based on synchrotron radiation. The main research fields are:

- The structure-function relationship of proteins and protein complexes by synergic method on synchrotron radiation, e.g., protein crystallography, SAXS, X-ray imaging.
- Methods in structure determination of proteins and complexes.
- The structures and functions of proteins involved in DNA repair and metabolism.

I have authored/co-authored: 3 chapters in books written by teams; about 160 scientific papers in journals and conferences.

I am a reviewer for *Nature, Nature Communication, Scientific Report, Nucleic Acid Research Acta Crystallographica Section A: Foundations of Crystallography, Acta Crystallographica Section D: Biological Crystallography, Acta Crystallographica Section F: Structural Biology and Crystallization Communications, Journal of Applied Crystallography, Journal of Physical Chemistry, Journal: Physica B, Solid State Sciences, Chinese Physics Letters;* also for proposals applied to National Natural Science Foundation of China; National Basic Research Program of China (973 Program), Ministry of Science and Technology; ECHO Grants - Chemistry in Relation to Biological and Medical Sciences, Netherland.

Profile of Member Standing for Vice-President, Afrika and Middle East

Mohamed Ahmed Mahmoud Gomaa

Mohamed Ahmed Mahmoud Gomaa
Emeritus Professor
Egyptian Atomic Energy Agency
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I was born in the middle eastern city of Alexandria, Egypt. I graduated from physics Department, Faculty of Science, Alexandria university. I granted PhD degree in Radiation Physics from London University. My PhD topic was Neutron Shielding.

Later I joined Atomic Energy Authority at Radiation Protection Department. And my interest was shifted to radiation detection and dosimetry, later my interest was directed to nuclear Safety and security. Currently, I am Emeritus Professor of Radiation Physics at the Egyptian Atomic Energy Authority.

It is nearly 40 years since I participated in the Proceedings of the Second International Radiation Physics Symposium (IRPS) held in Penang Malaysia. It was great change to meet in person John Hubbel and Prof Ghose and in this event the foundation of IRPS was established.

Consequently, ten years later and with the help of Egyptian Radiation physicists the first radiation physics was held in Qena (800 Km south of Cairo), Egypt in 1992. With the help of John Hubbel, the proceedings of the conference were published at Journal of Radiation Physics and Chemistry as special issue in 1994. Among the participants of the conference, was the late Prof Isabelle. In 1994 the second radiation physics conference was held in Sheeben El Kom, (100 Km north of Cairo), Egypt. And among the participants David Bradley (IRPS Chairman) and the proceedings was published at the same journal in 1996. In 2009, I attended the 9th IRPS symposium held in Melbourne.

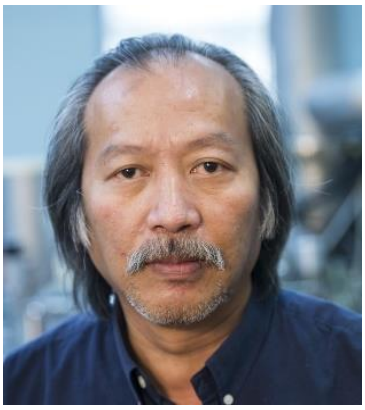
Local Radiation physics conferences were regularly held every two years and in 2018 the 12th conference was held in Cairo.

Currently I represent Egypt at UNSCEAR (United Nation Scientific Committee on the Effects of Atomic Radiation).

Furthermore, I am chairman of the IRPA Egyptian Associate Society, which was founded in 1992. Among the activities of the local society was to organize the second regional radiation protection African congress which was held in Ismailia in 2007. International experts from IAEA staff, from Europe and US attended the congress.

Several radiation protection Workshops were held in Cairo. The last one was held in 2020. I am actively participating in IAEA technical meetings leading to publications of its safety series and safety requirements.

Profile of Member Standing for Vice-President, Australia and Oceania
Chanh Tran



Chanh Tran
Department of Chemistry and Physics
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I am a Lecturer of Physics at La Trobe University in Australia. My major research interests include interactions of X-rays with matter, complex anomalous fine structures, optical coherence and x-ray imaging. I received my PhD from the University of Melbourne in 2003 in the area of precision measurement of the imaginary component of the atomic form factor using the X-ray Extended Range Technique.

I won an Australian Synchrotron Research Fellowship and an Australian Research Fellowship in 2003 and 2006, respectively. Since 2007, I have been a lecturer at La Trobe University with ~70 refereed publications to date. My work in the field of radiation coherence led to the first complete reconstruction of the coherence function of a synchrotron beam.

I have extensive synchrotron experience and have conducted my research at major facilities around the world including the Australian Synchrotron (AUS), the Photon Factory (Japan), the Advanced Photon Source (US), the Stanford Synchrotron Radiation Lightsource (US), The European Synchrotron Radiation Facility (EU), and Diamond Light Source (UK).

Recently, I have combined my expertise in precision X-ray spectroscopy and imaging to develop a technique for determining both the amplitude and phase components of the complex anomalous fine structures. This is an analogue to X-ray Absorption Spectroscopy in the phase domain and promises exciting opportunities in probing structures of matter.

Profile of Member Standing for Vice-President, IRMMA/Industrial Applications

William Dunn

William Dunn
Professor and Teaching Scholar
Department of Mechanical and Nuclear Engineering
Kansas State University
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I have devoted my professional life to radiation measurement applications. Along the way, I have investigated techniques for modelling radiation responses from sensors and simulating radiation transport, primarily by Monte Carlo methods. I obtained my BS degree in Electrical Engineering from the University of Notre Dame and my MS and PhD degrees in Nuclear Engineering from North Carolina State University.

I spent my early career as an in-house nuclear engineering consultant for Carolina Power & Light Company, where I conducted radioactive and inert tracer studies at the H.B. Robinson nuclear power-plant. After a stint as Reactor Applications Engineer and Adjunct Assistant Professor at the Nuclear Engineering Department at North Carolina State University, I then entered into a long career in contract research. In 1988 I founded Quantum Research Services, Inc., a small-business contract research firm in Durham, North Carolina.

I spent fourteen years as President of Quantum, performing research primarily in radiation applications, such as non-destructive testing. My research often involved Monte Carlo modeling and inverse analysis. In the summer of 2002, I joined the Kansas State University (KSU) faculty as Associate Professor in the Department of Mechanical and Nuclear Engineering (MNE). I was Head of the MNE Department at KSU from 2013 to 2019.

I am now a Professor and the Don and Linda Glaser—Carl and Mary Ice Cornerstone Teaching Scholar in the MNE Department. I have received numerous awards, including the Fred Burgraff Award of the Highway Research Board, the North Carolina Entrepreneurial Excellence Award, and the Radiation Science and Technology Award from the American Nuclear Society.

I am author of over 100 scientific publications, including four patents. With Dr. Ken Shultis I am preparing the second edition of our book *Exploring Monte Carlo Methods*. I am the originator of the symbolic Monte Carlo (SMC) method and the X-ray backscatter scanning technique. I attended the third ISRP in Ferrara, Italy, and has been a member of IRPS for 46 years.

Profile of Member Standing for Vice-President, Central and South America

Hector R. Vega-Carrillo

Hector R. Vega-Carrillo
Research Department at AORTech, SA de CV
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fermineutron@yahoo.com

Professor Hector R Vega-Carrillo graduated as Electrical Engineer at Universidad Autonoma de Zacatecas in 1981, in Zacatecas City, Mexico. In 1984 he obtained the MSc degree in Nuclear engineering at the Physics and Mathematics Faculty in the Universidad Autonoma de Nuevo Leon, in Mexico. Later, in 1995 he obtained the PhD degree in Nuclear Engineering at The University of Texas at Austin, USA; here, he was Research Assistant from 1991 to 1995. In 1981 he became faculty in the Universidad Autonoma de Zacatecas.

From 1981 to 2023 his duties included research and teaching in Bachelor, MSc and PhD courses in the Engineering and Basic Sciences university areas. Since 2023 he has been researcher at AORTech, SA de CV, at Zacatecas City. Research interests include Spectrometry and radiation dosimetry, Elemental analysis and materials characterization, Neutronics, Nuclear energy and Monte Carlo methods. Professor Vega-Carrillo is author/co-author of 42 books, 6 book chapters, about 220 scientific papers in journals, 400 papers in conferences.

He has participated in the organization of several scientific meetings. He is editorial member of Applied Radiation and Isotopes, Radiation Physics and Engineering and Graduate Journal of Interdisciplinary Research, Reports & Reviews. He has been invited professor for universities at Colombia, Ecuador, Mexico, Peru and Spain; in addition, he has been invited speaker from several scientific societies.

Profile of Member Standing for Vice-President, (Saudi Arabia) Middle East

Mohammed Alkhorayef

Professor Mohammed Alkhorayef
Distinguished Scholar
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Professor Mohammed Alkhorayef is a distinguished scholar in the field of medical physics with a remarkable record of research, teaching, and administrative leadership. Professor Alkhorayef's pursuit of knowledge continued internationally. In 2004, he earned a Master of Science in Medical Physics from the University of Surrey in the United Kingdom. He further solidified his expertise by obtaining a Ph.D. in Radiation and Medical Physics from the same esteemed institution. Professor M.K. has become a prolific researcher with over 100 publications in leading international journals. His expertise extends beyond publishing, with more than 54 conference presentations showcasing his research findings to the global scientific community.

Professor Alkhorayef's leadership extends beyond research. He has served as the chairman of the Radiological Science department, demonstrating his commitment to academic excellence and departmental growth.

Furthermore, his tenure as the vice Dean of the Deanship of Scientific Research highlights his exceptional administrative skills and strategic vision for research advancement within the institution. Professor Alkhorayef is dedicated to nurturing future generations of scientists. His experience encompasses research supervision and guiding students through their research endeavours. Professor Alkhorayef's dedication to research has been acknowledged through prestigious national and international awards. These recognitions stand as a testament to the significant contributions he has made to the field of medical physics.

Profile of Member Standing for Membership Officer
Eric Shirley

Dr. Eric L. Shirley, Physicist
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eric.shirley@nist.gov

Eric L, Shirley: Staff member, physicist, at the National Institute of Standards and Technology in Gaithersburg, Maryland, USA; PhD in Physics from the University of Illinois at Urbana Champaign, 1991.

I am currently serving as Membership Secretary for the Society. I work closely with the Treasurer to keep abreast of new memberships and membership renewals. At present I am overhauling the database for the membership roster and (as of March 2021) is undertaking another Society-wide renewal cycle.

By training I am a theoretical solid-state physicist, with experience in atomic-structure calculations, band-structure calculations, and many-body theory. I have been involved in calculations of the optical spectra of solids throughout the electromagnetic spectrum, from the far-infrared to the hard x-ray region, including the very important topic of calculating inelastic mean free paths for charged particles. My research interests lie in computational physics, which relies heavily on the use of extensive computational resources, as well as mathematical physics, which is limited only by the abilities of the practitioner. Beyond studying the main moving parts of solids, i.e., electrons, having a background in mathematical physics (of the applied, down-to-earth sort) has helped me and my colleagues study the wave propagation of photons in photonic crystals and practical optical systems such as collimators, radiometers, and telescopes. These research endeavours have led to successful understanding of problems pertinent to communities ranging from semiconductor manufacturing to astronomy.

Recently, I have also studied generation of synchrotron radiation, going beyond the conventional Schwinger formula, which is only approximate, and is presently considering effects of recoil as a correction to the calculated photon flux. This is in support of NIST's use of a synchrotron as a standard optical source in radiometry.

I am a member of the American Physical Society, the International Radiation Physics Society, and Sigma Xi. I have been actively involved in the Conference on Characterization and Radiometric Calibration from Remote Sensing (CALCON) since 1995, having contributed to short courses and session planning, and during 2001-2013 was on the International Advisory Board and Program Committee of the Vacuum Ultraviolet (VUV) International Conference, which has now merged with the X-ray and Inner-Shell Processes (X) International Conference.

A Hertz Fellow in graduate school, I began my postdoctoral research as a Miller Fellow at the University of California at Berkeley. I have also been honoured with the Presidential Early Career Award for Scientists and Engineers (1999), the Sigma Xi Award Young Researcher Award (2002), Fellowship of the American Physical Society (2006), and the Arthur S. Flemming Award in the area of Basic Science (2008). As well, I am a co-recipient of Department of Commerce Silver Medal (2002), Bronze Medals (2005 and 2020), and Gold Medal (2013) award.

Executive Councillors [to be elected, 6 years terms]

Profile of Member Standing for Executive Councillor
Mark Bailey, *High Dose Reference Laboratory, Denmark*

Mark Bailley
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I joined the High Dose Reference Laboratory (HDRL), Risø, Denmark, in August 2015, and have been providing dosimetry and consulting services for the irradiation industry worldwide since then, as well as being involved with more fundamental research-based activities in diverse areas from radiotherapy dosimetry to the dating of rocks for archaeology. I have also become an Associate Editor for the journal Radiation Physics and Chemistry, an activity which requires time and devotion: finding reviewers for articles is sometimes a challenge!

I gained my BSc in physics in 1986, and my PhD in applied nuclear physics in 1990, both from the University of Birmingham, UK. In the mid-1990s I used Monte Carlo calculations to estimate the range of doses that might be expected to be delivered in a high-energy electron beam facility at the Harwell Laboratory near Oxford in the UK, and then for ten years I was directly involved in the irradiation of medical devices, semiconductors, and gemstones, the calibration of different dosimetry systems, dose mapping for more or less complex product, and giving irradiation advice. I always tried to have fun doing this and maintain an enthusiastic approach, including in my eleven years subsequently at the UK National Physical Laboratory, where my work was much more inclined towards doses at therapy levels.

If I have to admit to a passion, it is in explaining the science via presentations: I try to impart to course attendees for example an idea of how to "think like an electron" – an ability which I am sure is delivered stochastically after carrying out many a Monte Carlo calculation. I have contributed to courses at radiotherapy levels and at high-dose industrial levels, at NPL and HDRL, with the Panel on Gamma and Electron Irradiation (I served a four-year term as Secretary of the Panel, 2006-2010), with the ASTM, and more lately with the IAEA.

Profile of Member Standing for Executive Councillor
Zdravko Siketic, Ruder Boskovic Institute, Croatia

Zdravko Siketic
Research Associate
Ruder Boskovic Institute
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Zdravko Siketić finished his postgraduate study in 2010 in nuclear physics at the University of Zagreb, Croatia. At the moment he is employed at the Ruder Boskovic Institute (RBI), Zagreb, Croatia as Research Associate in the Laboratory for Ion Beam Interactions (LIBI).

His main activities are related to characterisation and modification of various samples using MeV ion beams (ERDA, RBS, PIXE, SIMS) and also studying the basic parameters of interaction of charged particles with materials. Also, he constructed and designed a new beam line for the thin film analysis TOF-ERDA at RBI, position sensitive MCP detector, gas ionisation detector (GID) and MeV TOF-SIMS spectrometer. Another MeV TOF-SIMS he constructed during his one year of postdoc research at Jozef Stefan Institute in Ljubljana, Slovenia.

In parallel with his experimental work, he participated in many bilateral projects, IAEA CRP-s, European FP7 project SPIRIT and CERIC. From 2007 to 2010 he managed IAEA CRP F11013 and from 2013-2015 he was chief scientific investigator at Croatian-Slovenian bilateral project. At the moment, he is managing IAEA CRP project F11019, Croatian-Austrian bilateral project, and he is MC member of COST Action 16101 "MULTi-modal imaging of FOREnsic SciEnce Evidence (MULTI-FORESEE)- tools for Forensic Science". He participated in the organisation of the 5 international conferences, and he is chairing the next European Conference on Accelerators in Applied Research and Technology (ECAART13) which will be held in Split, Croatia, in 2019.

According to the Current Contents data base and Web of Science he is co-author and author of 58 scientific papers (average number of citations is 4.93, h index is 8). In addition, he is author of the chapter "Ion Beam Analytical Methods" in the book "Nuclear Physics for Cultural Heritage" (Nuclear Physics Division of the European Physical Society, October 2016).

Also, he contributed to over 20 International Conferences with Oral and Poster presentations (5 invited talks). As a part of scientific work, he is refereeing for Nuclear Instruments and Methods B and AIP Conference Proceedings.

Profile of Member Standing for Executive Councillor
Pedro Vaz, *University of Lisbon, Portugal*

Pedro Vaz
Principal Researcher
Institute Superio Tecnico
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Pedro Vaz, Ph.D. in Physics, is Principal Researcher with Habilitation at IST (**I**nstituto **S**uperior **T**écnico, the leading Portuguese School of Engineering, Science and Technology, at the University of Lisbon). His main areas of research include Radiation Protection, Shielding, Dosimetry and Nuclear Technology.

He is currently President of the Center for Nuclear Sciences and Technologies (C2TN) of IST and Coordinator of the Radiological Protection and Safety Group at IST.

He serves as the National Liaison Officer (NLO) of Portugal for the International Atomic Energy Agency (IAEA), since July 2017. He has participated in several European projects in the fields of transmutation of nuclear waste, radiological and nuclear emergencies, radiation protection and dosimetry, medical applications of ionizing radiation and education and training in radiological protection.

He has been Administrator at the Nuclear Energy Agency (NEA) of the OECD, at the computer programs service of the data bank. During that time, he has acquired extensive experience in Monte Carlo, deterministic and hybrid computational methods and nuclear data, in support of peaceful applications of nuclear energy and nuclear technology and served as Scientific Secretary of international expert groups such as SATIF (Shielding of Accelerators, Targets and Irradiation Facilities). He participates in international scientific consortia collaborations at CERN, Geneva, Switzerland, undertaking nuclear data experiments and performing radiation protection, radiation safety, dosimetry and shielding assessment of nuclear technology facilities.

Pedro Vaz is/has been Portuguese representative on the boards in several high-level Technical Committees of the European Union (namely the Group of Experts in Radiological Protection of the EURATOM Treaty and the Consultative Committee on Energy Fission of the European Union) and of the OECD Nuclear Energy Agency (Steering Committee for Nuclear Energy, Nuclear Science Committee, Committee on Radiological Protection and Public Health).

He is the Portuguese or institutional representative in the Boards of different European Union Technology Platforms such as MELODI (Multidisciplinary European Low Dose Initiative) and EURADOS (European Radiation Dosimetry Group).

He is a member of the American Nuclear Society (ANS) and has served as member of the Executive Committee of the Radiation Protection and Shielding Division (RPSD/ANS) and as vice-Chair of the Computational Medical Physics Working Group (CMPWG).

He is author/co-author of approximately 350 articles published in international journals with peer reviewing and in Conference Proceedings. Is a member of the Editorial Board of the journal European Journal of Radiology (EJR, Elsevier), section "Radiation Protection and Physics".

Pedro Vaz teaches Radiation Protection and Dosimetry topics in different Portuguese Universities.

Profile of Member Standing for Executive Councillor
Richard Hugtenburg, Swansea University, UK

Richard Hugtenburg
Associate Professor
Department of Medical Physics
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Richard Hugtenburg is an Associate Professor of Medical Physics at Swansea University, and a clinical scientist, specializing in radiotherapy physics at Singleton Hospital, Abertawe Bro Morgannwg University Health Board. His research interests include the modelling and use of high spatial and temporal resolution solid-state dosimetry systems in emergent radiotherapy practice, including intensity modulated radiotherapy (IMRT), proton and microbeam radiotherapy.

Dr. Hugtenburg began his career in Christchurch, New Zealand, working as a medical physicist and studying for a PhD that focused on the use of Monte Carlo and other computational methods in radiotherapy treatment design. Richard moved to the UK in 1997 and continues to practice in radiotherapy physics; first at the Queen Elizabeth Medical Centre in Birmingham, then in Swansea, where he has coordinated a MSc programme in Medical Physics since 2008

Dr. Hugtenburg has developed Monte Carlo modelling of radiation processes in solid-state detector systems and on cellular length scales and combines this with an interest in the structural analysis of tissue on the micron-scale, including the use of emergent MRI imaging modalities achieving micron resolution. He is currently exploring the use of such modelling and imaging techniques to improve dosimetric precision of radiotherapy techniques that exploit the uptake of dose-enhancing materials, and in particle therapies.

Profile of Member Standing for Executive Councillor
Pinit Kidkhunthod (Thailand)

Pinit Kidkhunthod
Beamline Scientist (Level 3)
Synchrotron Light Research Institute
(Public Organization)
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pinit@slri.or.th

Dr. Pinit Kidkhunthod (DOB : 18 November 1984) has been working currently as a beamline scientist level 3 (highest level) at the Synchrotron Light Research Institute (Public Organization), Thailand, focusing on X-ray absorption spectroscopy (XAS) technique since 2012. His research interest is in the fields of structural studies of advanced functional materials such as novel catalysts, new energy materials and novel amorphous materials for energy storage applications using XAS-based technique. Dr. Pinit Kidkhunthod received his B.Sc. (Physics), first class honors 3.99 from Khon Kaen University, Thailand in 2007, and Ph.D. (Physics) from Bristol University, U.K in 2012. Recently, Dr.Kidkhunthod has received research grants for young scientist from Thailand Research Fund (TRF2013) and Ministry of Science and Technology (2014) Additionally, he has been awarded the funding support from the NSRF, Thailand, via the Program Management Unit for Human Resources & Institutional Development, Research and Innovation 2021 and funding for Talented Mid-Career Researchers from National Research Council Thailand (NRCT) 2022-2024. Recently, he has been awarded the adjunct Professor at the Shenzhen Institute of Advanced Technology, Chinese Academy of Science (SIAT-CAS during 2018-present) and Visiting Scientist position at CAS (PIFI program) in 2021 and 2023. Additionally, he has been successfully awarded the Outstanding Young Materials Researcher Award 2022 from the Materials Research Society Thailand (MRS-Thailand). Currently, he has been the author and co-author of over 300 papers in Scopus-based journals for structural studies of advanced functional materials using XAS technique (H-index = 42).

Moreover, Dr.Kidkhunthod has been recently dominated as a committee in American Ceramic Society-Thailand Chapter (AcerS-Thailand), Electrochemical Society-Thailand Section (ECS-Thailand), IEEE-Magnetics Society-Thailand Chapter (IEEE-MagSoc-Thailand) and Materials Research Society-Thailand (MRS-Thailand). Currently, Dr.Kidkhunthod has been working as a Guest editor of Journal of Radiation Physics and Chemistry (Scopus) and Journal of Nanomaterials special issue (MDPI). Additionally, Dr.Kidkhunthod had organized ASIAN Conference on X-ray Absorption Spectroscopy (ACXAS2019 and 2022) as Chair of Conference and co-organized over 10 international conferences on advanced materials such as SMARTMAT2019/2024, MRS-Thailand conference 2019 and 2023 and ICAPMA 2020/2023.

Profile of Member Standing for Executive Councillor
Jakrapong Kaewkhao

Jakrapong Kaewkhao
Center of Excellence in Glass Technology and Materials Science (CEGM), Nakhon Pathom Rajabhat University (NPRU), Thailand.
jakrapong@webmail.npru.ac.th

Prof. Dr. Jakrapong Kaewkhao received his Ph.D. degree in Physics from King Mongkut's University of Technology Thonburi (KMUTT), Thailand, in 2008. After his graduation, he attended research of an x-rays induced luminescence study in glasses at KyungPook National University (KNU), Korea, in 2012. In the same year, he has been awarded as the best alumni of Silpakorn University, Thailand. Through his academic career, his research interests involved glass and crystal scintillators, Ln^{3+} doped glasses for luminescence applications, radiation shielding glasses and natural gemstone enhancements. His research has been published 755 articles in international journals with 9,729 citations and H-index = 50.

Currently, he is a director of the Center of Excellence in Glass Technology and Materials Science (CEGM), Nakhon Pathom Rajabhat University (NPRU), Thailand. He is also a member of AMoRE collaboration (Advanced Molybdenum Based Rare Experiment), to investigate mass of neutrinos, which supported by Institute for Basic Science (IBS, Korea).

He has been president of the American Ceramic Society: Thailand Chapter (ACerS-Thailand), vice president of rare-earth association of Thailand and executive committee of Materials Research Society of Thailand (MRS-Thailand) and especially, he has been guest editor for Radiation Physics and Chemistry during 2019-2024 and Optik in 2022. He was a visiting professor at various institutes such as Radiation Science Research Institute, KyungPook National University (Korea), Institut Teknologi Sepuluh Nopember, Institut Teknologi Sumatra (Indonesia) and Sri Venkateswara University, India. He also was guest scientist at department of physics, KyungPook National University (KNU), Korea in 2016. (Supported by 2016 NRCT - NRF Scientist Exchange Program). Apart from his academic involvements, he is currently a consultant for color glass productions and gemstone enhancements in glass and jewelry businesses.

Executive Councillors [continuing for another 3 years]
Avneed Sood (USA)

Avneet Sood, PhD.
Senior Scientist, Computational Physics (X) Division,
Weapons Physics Directorate,
Los Alamos National Laboratory,
sooda@lanl.gov

Dr. Avneet Sood has served in Los Alamos National Laboratory's nuclear weapons program since 2000 as a technical leader and organizational manager.

His last 10 years have been in a key leadership role responsible for approximately 50 technical staff, post docs, and graduate students involved with Monte Carlo radiation transport methods and code development (including MCNP) and variety of radiation transport applications.

These applications involve applying radiation transport principles supporting the US nuclear emergency response, nuclear counter-terrorism, and nuclear non-proliferation efforts. He has helped produce seven PhD students at five universities, post-doctoral student advisor for seven students, and is an adjunct professor of nuclear engineering.

He serves as an academic reviewer to nuclear engineering departments and professional societies.

Executive Councillors [continuing for another 3 years]
Christopher Chantler (Australia)

Christopher Chantler
Physics Department
University of Melbourne
chantler@unimelb.edu.au

I am Professor of Physics at the University of Melbourne where my major research interests include high-accuracy XAS in transmission and fluorescence, XERT and Hybrid techniques at synchrotrons, atomic and condensed matter theory and experiment, and tests of Quantum Electrodynamics [QED] at Electron Beam Ion Traps [EBITs]. I am a Fellow of the AIP and APS. I received my D Phil from Oxford in High-accuracy X-ray tests of Quantum Electrodynamics and following fellowships at Oxford and the National Institute for Standards and Technology, Maryland, USA I returned to Australia and the University of Melbourne some 27 years ago.

My research makes extensive use of synchrotron, X-ray and IR beamlines, and particularly XAS. I have used BigDiff at Tsukuba extensively in collaboration with Australian and Japanese collaborators. I have published over 205 papers. My research work has been recognised with numerous awards including the international JARI Enterprise award, and the David Syme Prize.

I have chaired, co-chaired or been the scientific or proceedings chair on many conferences. I am Chair of the International Union of Crystallography Commission on XAS, am a member of the Society of Crystallographers in Australia and New Zealand, Immediate Past President of the International Radiation Physics Society, a member of the IUCr Commissions on International Tables, Editor-in-Chief of Radiation Physics and Chemistry, and Editor of the forthcoming International Tables for Crystallography, Volume I on X-ray Absorption Spectroscopy.

I have created several new fields of inquiry, including high-accuracy XAS and analysis with uncertainty, the popular FDMX codes, updates of GRASP atomic theory, the first measurements of low energy Inelastic Mean Free Paths at synchrotrons, and the new coupled plasmon theory of solid-state transport. Recently I have applied this to understand such issues as Alzheimer's disease using synchrotrons.

Executive Councillors [continuing for another 3 years]
Esam Hussein (Canada)

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(http://www.uregina.ca/engineering/faculty-staff/faculty/hussein-esam.html)

I am currently the Dean of Engineering and Applied Science at the University of Regina. After completing my undergraduate studies and a master's degree in nuclear engineering at Alexandria University, Egypt, I earned a PhD also in nuclear engineering from McMaster University. I was then employed as a Nuclear Design Engineer at Ontario Hydro (now Ontario Power Generation). Subsequently, I joined the University of New Brunswick – Fredericton, where I taught subjects in Chemical then Mechanical Engineering, and served as Department Chair, Associate Dean and Vice-President and President of the Association of UNB Teachers.

I led a research program that focused on the industrial and medical uses of nuclear and atomic radiation for non-destructive testing and imaging and for the detection of threat materials. I have supervised many graduate students, published numerous scientific papers and industrial reports, am a holder of six patents, and the author of three books on I am a recipient of the 2019 Outstanding Achievement Award of the Association of Professional Engineers and Geoscientists of Saskatchewan, the Canadian Nuclear Innovation Achievement Award in June 2003, and the Sylvia Fedoruk Award in 1999. I am currently a receiving editor of Applied Radiation and Isotopes and Physics Open. My current research focus is on small modular reactors.

I am a registered professional engineer in the Provinces of Saskatchewan, New Brunswick and Ontario. As well I am a member of the Canadian Nuclear Society, American Nuclear Society, American Society of Mechanical Engineer, IEEE Nuclear IEEE Nuclear and Plasma Sciences Society, American Society for Non-destructive Testing and a Fellow of the Canadian Society of Senior Engineers. I currently serve as an executive councillor of the International Radiation Physics Society.

ELECTION BALLOT FORM

For all posts, except those of executive councillors, vote for one by marking the appropriate box. For executive councillors, you may vote for up to six candidates who are running for the full six-year term. *For all positions you may write in names of other members of the Society and cast your ballot for them.*

President *(vote for one)*
Jorge Fernandez (Italy) _____□

Secretary *(vote for one)*
Tomáš Trojek (Czech Rep.) _____□

Treasurer *(vote for one)*
Amir Bahadori (USA) _____□

Membership Officer (*vote for one*)
Eric Shirley (USA)_____□

Vice Presidents
Former Soviet Union (FSU) (vote for one)
Sultan Dabagov (FSU) _____□

Central & Eastern Europe (vote for one)
Ladislav Musilek (Czech)_____□

Central and South America (vote for one)
Hector R. Vega-Carrillo (Mexico) _____□

IRMMA/Industrial Application (vote for one)
Bill Dunn (USA) _____□

Executive Councillors standing
Mark Bailey (Denmark) (vote for six) ___□
Jakrapong Kaewkhao (Thailand) (vote for six) _□
Pedro Vaz (Portugal) (vote for six) _____□
Pinit Kidkhunthod (Thailand) (vote for six) __□
Richard P. Hugtenburg (UK) (vote for six) ___□
Zdravko Siketic (Croatia) (vote for six) _____□

Vice Presidents
Western Europe (vote for one)
David Bradley (UK, Malaysia) _____□

North-East Asia (vote for one)
Yu-Hui Dong (People Rep. China) _____□

Middle East (vote for one)
Mohammed Alkhorayef (Saudi Arabia) ____□

Australasia & Oceania (*vote for one*)
Chanh Tranh (Australia) _____□

Japan (vote for one)
Hitoshi Abe (Japan) _____□

North America (vote for one)
Ron Tosh (USA) _____□

Africa
Mohamed Gomaa (Egypt) _____□

Immediate Past-President Continuing
Isabel Lopes (Portugal)

Continuing Executive Councillors (3 years)
Avneed Sood (USA)
Christopher Chantler (Australia)
Esam Hussein (Canada)

Please use this ballot to vote. Instructions for return:
1) Electronic submission: Scan your completed ballot and email the image to the Secretary Tomáš Trojek at tomas.trojek@fjfi.cvut.cz
2) Ballots must be received by the Secretary by *18 August 2024*
3) The results will be announced at ISRP-16

International Radiation Physics Society

The primary objective of the International Radiation Physics Society (IRPS) is to promote the global exchange and integration of scientific information pertaining to the interdisciplinary subject of radiation physics, including the promotion of (i) theoretical and experimental research in radiation physics, (ii) investigation of physical aspects of interactions of radiations with living systems, (iii) education in radiation physics, and (iv) utilization of radiations for peaceful purposes.

The Constitution of the IRPS defines Radiation Physics as "the branch of science which deals with the physical aspects of interactions of radiation (both electromagnetic and particulate) with matter." It thus differs in emphasis both from atomic and nuclear physics and from radiation biology and medicine, instead focusing on radiation.

The International Radiation Physics Society (IRPS) was founded in 1985 in Ferrara, Italy at the 3rd International Symposium on Radiation Physics (ISRP-3, 1985), following Symposia in Calcutta, India (ISRP-1, 1974) and in Penang, Malaysia (ISRP-2, 1982). Further Symposia have been held in Sao Paulo, Brazil (ISRP-4, 1988), Dubrovnik, Croatia (ISRP-5, 1991) Rabat, Morocco (1SRP-6, 1994), Jaipur, India (ISRP-7, 1997), Prague, Czech Republic (ISRP-8, 2000), Cape Town, South Africa (ISRP-9, 2003), Coimbra, Portugal (ISRP-10, 2006), Australia (ISRP-11, 2009), Rio de Janeiro, Brazil (ISRP-12, 2012), Beijing, P.R.China (ISRP-13, 2015), and Córdoba, Argentina (ISRP-14, 2018), Malaysia (ISRP-15, 2021), *and next* Portugal (ISRP-16, 2024)

The **IRPS Bulletin** is published twice a year and sent to all IRPS members.

The IRPS Secretariat is Prof. Thomas Trojek (IRPS Secretary), Czech Technical University in Prague, Czech Republic

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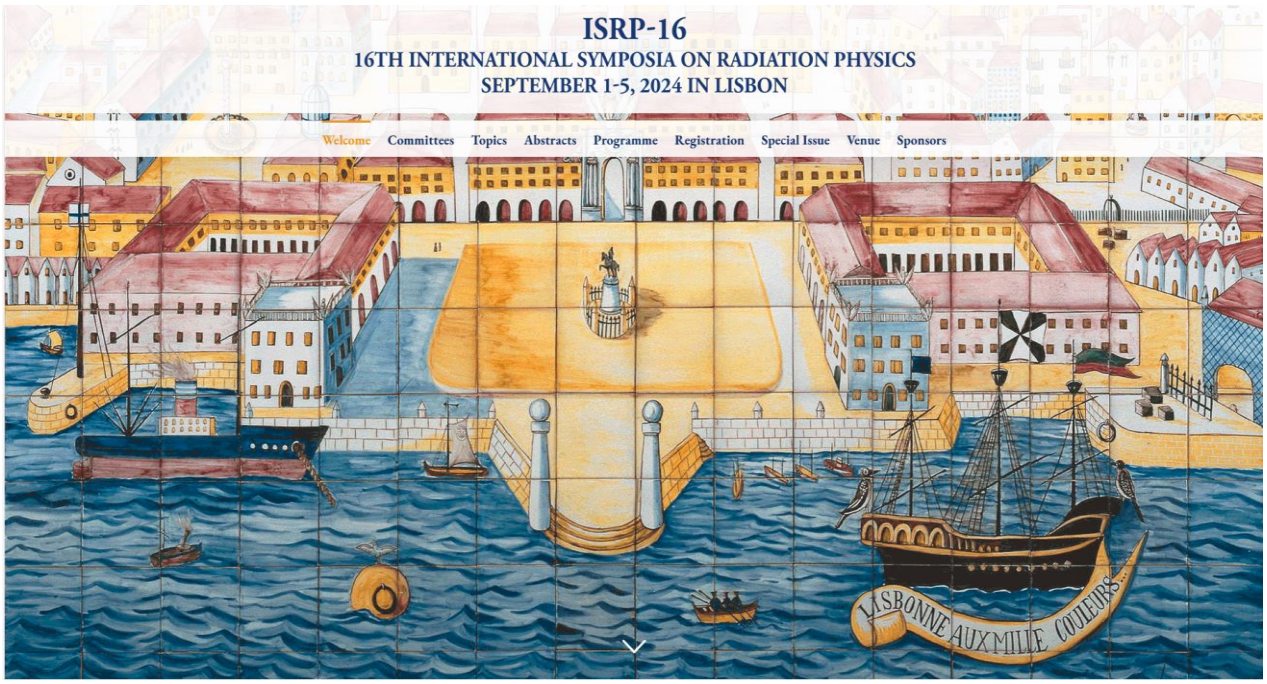
The IRPS welcomes your participation in this "global radiation physics family"

The publication of the IRPS Bulletin and the maintenance of the IRPS website are facilitated by the generous assistance of the Sunway University, the University of Canberra, and the University of Melbourne.

Up-Coming Conferences



The International Radiation Symposia are one of the regular activities of the International Radiation Physics Society (IRPS) founded in Ferrara (Italy) in 1985.

The ISRP-16 (September 1-5, 2024), 16th in the series of International Symposia on Radiation Physics, is being organized by the Laboratory for Instrumentation, Biomedical Engineering and Radiation Physics (LIBPhys) in Lisbon by NOVA SCHOOL of Science and Technology, the Faculty of Sciences and Technology-University of Coimbra, the Dentistry Faculty of the University of Lisbon and also the International Radiation Physics Society (IRPS). The meeting will be held at Dentistry Faculty of the University of Lisbon at the University City in the heart of Lisbon.

A Special issue on Radiation Physics and Chemistry Journal is devoted to ISRP 16th.For more details, please see https://isrp16lisbon.com/

IRRMA-12 (26-30 January 2025)

The International Topical Meeting on Industrial Radiation and Radioisotope Measurement Applications (IRRMA) conference series is among the successful conferences organized by the International Radiation Physics Society (IRPS). The first IRRMA-1 Conference occurred in 1988 in Pinehurst, North Carolina, USA, while the last edition was IRRMA-11 in Bologna, Italy 2023.

IRRMA-12 is a landmark edition, marking the first time it's being held outside the United States and Europe. This unique Conference will take place in Riyadh, the vibrant capital of Saudi Arabia, in the last week of January 2025. What sets this edition apart is the significant involvement of the Ministry of Industry and Mineral Resources in Saudi Arabia, under whose auspices the conference is being organized. This promises to be a truly exceptional event.

The IRRMA-12 Conference is devoted to exchanging information and experience on industrial uses and applications of radiation & radioisotopes in addition research and applications in related fields. Regarding the dedicated sessions scheduled in the conference program, two workshops focusing on radiation dosimetry in industrial and medical applications as well as radioactive waste management, are organized physically and virtually. Ten national governmental authorities and four international organizations will attend the conference events.

The IRRMA-12 Conference offers a rich scientific and social program, providing a platform for experienced experts, young scientists, and industrial exhibitors to come together, exchange views, and initiate new collaborative projects. This diverse mix of participants ensures a dynamic and enriching experience for all.

In Riyadh, you will Experience the dynamic city of Riyadh, a hub for innovation and culture, while attending the Conference! It will be an excellent opportunity to immerse yourself in the rich history and warm hospitality of Saudi Arabia at this Conference.

Important dates related to IRRMA-12:

* Abstract Submission opens 1st August 2024
* Abstract deadline 1st November 2024
* Notification of Abstract Acceptance 1st December 2024
* Early registration: 30th December 2024
* Online Registration deadline: 15 January 2025
* Conference: 26-30 January 2025

Proceedings

The Proceedings containing a selection of the presented papers will be published as Special Issue of Radiation Physics and Chemistry (Elsevier). More information to authors will be sent after the meeting.

Website for abstract submission will follow.
Hope to see you next January in Riyadh!

On behalf of the Organizing Committee
Prof. Mohammed Alkhorayef (Chair)
King Saud University

NOTICE

We are trying something new: which we hope will help bring our community closer together.

All over the world students are winning prizes for the excellence of their work, emerging researchers are having their research recognized in some way by their employers, some receive plaudits from professional societies.

We conceive of this as a way of bringing a better understanding of the work of our members. And a way of knowing them as people.

Membership Registration Form

1. Name: - ----------
   (First) (Middle Initial) (Last)

2. Date and Place of Birth: ----------

3. Business Address: ----------
   (Post Code) (Country)

   Telephone: ---------- Email: ---------- Fax: ----------

4. Current Title or Academic Rank (Please also indicate if Mr., Miss, Mrs., or Ms.): ----------

5. Field(s) of interest in Radiation Physics (Please attach a list of your publications, if any, in the field)

6. Please list any national or international organization(s) involved in one or more branches of Radiation Physics, of which you are a member, also your status (e.g., student member, member, fellow, emeritus):

7. The IRPS has no entrance fee requirement, only triennial (3-year) membership dues. In view of the IRPS unusually low-cost dues, the one-year dues option has been eliminated (by Council action October 1996), commencing January 1, 1997. Also, dues periods will henceforth be by calendar years, to allow annual dues notices. For new members joining prior to July 1 in a given year, their membership will be considered to be effective January 1 of that year, otherwise January 1 of the following year. For current members, their dues anniversary dates have been similarly shifted to January 1.

Membership Dues (stated in US dollars - circle equivalent amount sent)

Full Voting Member: 3 years	**Student Member: 3 years**
Developed country $75.00	Developed country $25.00
Developing country $30.00	Developing country $10.00

Acceptable modes of IRPS membership dues payment, to start or to continue IRPS membership, are listed below. Please check payment-mode used, enter amount (in currency- type used), and follow instructions in item 8 below. (For currency conversion, please consult the newspaper financial pages, at the time of payment).

All cheques should be made payable to : **International Radiation Physics Society.**
(For payments via credit card - http://www.irps.net/registration.html

8. Send this Membership Registration Form AND a copy of your bank transfer receipt (or copy of your cheque) to the Membership Coordinator: Dr Eric L. Shirley
Sensor Science Division National Institute of Standards
100 Bureau Drive MS 8441 Gaithersburg, Maryland 20899-8441, USA,
email eric.shirley@nist.gov

9 Signature
