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Medical Physics World

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IOMP NMOs

National Member Organisations

Algeria	Morocco
Argentina	Myanmar
Australia & New Zealand	Nepal
Austria	Netherlands
Bangladesh	New Zealand
Belgium	Nigeria
Brazil	Norway
Bulgaria	Panama
Cameroon	Peoples Rep. of China
Canada	Peru
Chile	Philippines
Colombia	Poland
Croatia	Portugal
Cuba	Qatar
Cyprus	Rep. of China - Taiwan
Czech Republic	Rep. of Macedonia
Denmark	Rep. of Moldova
Ecuador	Romania
Egypt	Russia
Estonia	Saudi Arabia
Finland	Singapore
France	Slovenia
Georgia	South Africa
Germany	Spain
Ghana	Sri Lanka
Greece	Sudan
Hong Kong	Sweden
Hungary	Switzerland
India	Tanzania
Indonesia	Thailand
Iran	Trinidad & Tobago
Iraq	Turkey
Ireland	Uganda
Israel	Ukraine
Italy	United Arab Emirates
Japan	United Kingdom
Jordan	United States
Korea	Venezuela
Kuwait	Vietnam
Lebanon	Zambia
Lithuania	Zimbabwe
Malaysia	Bangladesh - AFFILIATE
Mexico	
Mongolia	

Editorial

Magdalena Stoeva, PhD

Editor IOMP Medical Physics World



Dear Colleagues and Friends,

Welcome to the first 2021 issue of IOMP Medical Physics World!

Medical Physics World grows every time providing IOMP with most recent updates and information by IOMP ExCom, Committees, National and Regional Organizations.

Another high quality issue is in your hands with the latest IOMP officers, committees and subcommittees reports, as well as reports on various activities organized by the IOMP and its member organizations.

I would also like to use the occasion to welcome IOMP's newest corporate member – Sun nuclear.

Looking forward for another successful set of events – International Day of Medical Physics 2021, IOMP Webinars series, regular issues of the IOMP Newsletter and numerous of contributions by IOMP National Member Organizations and Regional Organizations!



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IOMP

Fairmount House

230 Tadcaster Road

YORK YO24 1ES, UK

Editorial Board

Magdalena. Stoeva Editor, ms_stoeva@yahoo.com

Eva Bezak, IOMP SG, eva.bezak@adelaide.edu.au

Ibrahim Duhaini, Calendar Editor, IOMP Treasurer, duhaini@yahoo.com

Madan Rehani, IOMP President, madan.rehani@gmail.com

John Damilakis, IOMP Vice President, john.damilakis@med.uoc.gr

Eva Bezak, IOMP Secretary General, eva.bezak@adelaide.edu.au

Slavik Tabakov, IOMP Past President, slavik.tabakov@emerald2.co.uk

Paolo Russo, IOMP Publications Committee, russo@na.infn.it

Simone Kodlulovich Renha, IOMP A&H Committee, simone@cnen.gov.br

President's Report

Madan M. Rehani, PhD
President of IOMP



At the outset let me thank you all from the bottom of my heart for your cooperation all these three years and especially through the difficult time since March 2020 because of the pandemic, which has affected each and every one of us in very many ways. We are still passing through the pandemic which has taken the toll of more than 3 million lives the world over. We should pay tribute to those who lost their lives, whether they are medical physicists, their families/ loved ones, other health professionals, or members of the public in any part of the world. I humbly request one minute silence to pay our tributes to lives lost.

Unprecedented times lead to unprecedented outcomes. We decided to have this meeting of the Council as a virtual meeting at the time we would have had this meeting in person during WC2021 in

Singapore. As you were informed earlier, we had to accept the recommendation of the IUPESM to delay the World Congress by one year and make the unprecedented decision of extending the term of the ExCom by one year. That was not an easy decision to think of, but there was 100% unanimity in ExCom and we went by it. Thank you for your endorsement. Another urgent and difficult situation was when the Secretary-General (SG), Virginia Tsapaki got appointed at the IAEA and decided to quit her position in IOMP. She informed us on 25 June 2019 with her last day to continue IOMP work till 31 July 2019. She was kind enough to make recommendations and take actions for a smooth transfer and we were happy that Eva Bezak agreed to step in. It was just around 2 months before our ICMP 2019 was scheduled in Santiago, Chile. ExCom decided to ask Eva Bezak to take over SG for the balance of the term and it was possible to have SG without a break. Eva with the help of Sally Hawking from headquarter could help in a series of meetings that we had during the ICMP2019, to name a few: ExCom, Board of the Company of IOMP, meetings with IAEA, AAPM, regional coordination board (RCB), IPEM, ISR/ICRP/IRPA/PAHO which some of you may have attended. Thanks to Virginia, Eva, ExCom and the Council for this timely help.

I was lucky to take over as President, IOMP after having served as SG for two terms besides being Vice President. The experience within IOMP was very helpful. In addition, I had the pleasure of seeing previous Presidents right from Udipi Madhvanath (1991-1994), followed by Keith Body (1994-1997), Colin Orton (1997-2000), Oskar Chomski (2000-2003), Azam Niroomand-Rad (2003-2006), Barry Allen (2006-2009), Fridtjof Nusslin (2009-2012), K Y Cheung (2012-2015) and Slavik Tabakov (2015-2018). There is always something to learn from each leader. Each and everyone has made his/her inputs to the best of his/her capabilities and whatever IOMP is today, is because of the contribution of so many leaders of the past. I salute all previous Presidents for the great work that they have done.

During my term of three years so far, I had the privilege of having a wonderful team in ExCom. Every member of the ExCom has given his/her best, both in terms of contribution and cooperation. The report below includes only a small part of what has been done and achieved. Please see individual report of the ExCom members for full details.

- Strategic plan. We prepared a short and crisp strategic plan just around 8 lines which is available on

homepage of the IOMP website. That has been our guiding document.

- Communication with grass-roots. While taking over as President in Prague, I mentioned that we would like to be in touch with the grass roots. Social media has changed the way organizations work and communicate. It has given opportunities to provide information for public in addition to professional colleagues. Much as we had created IOMP's Facebook and twitter accounts way back when I was SG, IOMP, we created IOMP Newsletter to have better communication with professional colleagues and the first issue was released in April 2019. The Newsletter is released every two months and distribution list has grown more than 50 times in the past 2 years. In addition, some organizations like AAPM make it a point to pass on communication to its large membership and while others add links on their website. Thanks to all these organizations. Please provide us feedback on your actions so that we can maintain statistics. On our side it required adoption of email marketing service rather than usual emails to our Council members that we were practicing earlier. Thanks to Magdalena Stoeva and Chai Hong Yeong for their wonderful contributions.

- International Medical Physics Week (IMPW): Based on the success of the International Day of Medical Physics (IDMP) that was started by the IOMP in 2013; in fall of 2019, we decided to establish IMPW from 2020. The purpose is to enhance opportunities for going

beyond our usual circle of communication with medical physicists to include other professionals. This is a new activity which will pick up. Unfortunately, it was met with pandemic in first year itself in 2020 and thus only a few countries have been able to utilize opportunity of IMPW. We decided to organize daily webinars from IOMP side as an activity of IOMP School during IMPW. John Damilakis agreed to take the lead for IMPW2020. This experiment was a great success based on enthusiasm shown by participants which exceeded our expectations in terms of number of participants, number of countries, questions raised during Q & A session and feedback provided by participants in chat sessions. Thanks to John. We followed the pattern of daily webinars during IMPW2021 (26-30 April) also. The number of participants during IMPW2021 ranged 356 to 690 on different days. The distribution was: 56% Europe, North America and Latin America around 15%, Asia and Oceania 22% and Africa 7%. They were from more than 90 countries. In coming years, we hope that many countries shall be able to utilize opportunities offered by IMPW and propagate how medical physicists can contribute to the work of professionals beyond medical physicists for common objective of patient benefit.

- International Day of Medical Physics (IDMP). The theme of IDMP has been decided by ExCom every year and Ibrahim Duhaini has held charge of coordinating actions. The approach has been varied and we had a joint webinar with all regional

organizations in 2020. In 2021, we are going to have experts in public communication to fit with the theme of IDMP2021 of "Communicating the role of medical physicist to the public". There are a number of actions by Ibrahim, and you are referred to his report. Thanks Ibrahim.

- IOMP Webinars: IOMP had started joint webinars with IAEA in 2016. The success of those and webinars during IMPW2020 as well as continuation of pandemic motivated us to continue webinars under IOMP School after IMPW2020. Therefore, we continued webinars twice during each month on different topics and kept a watch on the interest by participants as the number of webinars organized by different organizations were becoming too much. Since we did not observe any waning of interest, we have continued nearly twice monthly webinars so far. We further partnered with IAEA and organized a series of joint IAEA-IOMP webinars. We also partnered with Cardiovascular and Interventional Radiological Society of Europe (CIRSE) and had tripartite IAEA-IOMP-CIRSE webinar. The webinars whether during IMPW or otherwise have covered speakers from diverse background such as cardiology, artificial intelligence experts, representative on international organizations, astrophysicists, physicists, besides regional organizations of IOMP. We started webinar in Spanish language, an activity that we launched in cooperation with Latin American Association of Medical Physics (ALFIM). The diversity of topics and

speakers is being expanded. Thanks to Magdalena for technical support for this activity. Almost all members of the ExCom have contributed to this activity and I wish to thank all of them.

- IOMP website and social media: The website was given facelift in 2018-2019 with new web content management system, new appearance and made dynamic. The number of visits have gone up by 5 times during the past 3 years, the number of updates are also up by similar figure. Special thanks to Magdalena Stoeva for her dedication. Anything passed on to her gets implemented within a few minutes almost round the clock. Please check her report for full information. She oversees social media activity also with her sub-committee. The impressions on twitter went up by 3 times during the past 3 years.

- International Conference of Medical Physics (ICMP) 2019, Chile. It was held in Santiago on 8-11 Sept. The three Presidents were co-organizers as: Jose Luis Rodriguez from Chile as President of Chilean Society of Medical Physics, Rodolfo Alfonso from Cuba, President, ALFIMP and Madan Rehani, President IOMP. The Program Committee was led by Geoffrey Ibbott, IOMP and Maria-Ester Brandan from Mexico from ALFIM. There were 493 registrants from 54 countries. 65% of the work submitted for proffered oral and poster presentations came from Latin America and the Caribbean. The countries most represented in the presentations were Chile, Brazil, Argentina and Peru. Thanks to Jose Luis, Rodolfo, Geoff and Maria-Ester

and their whole team for all the hard work done to make this conference a great success. Eva Bezak had to do a great deal of work to for business meetings as a new SG, IOMP. Thanks Eva.

- MoUs with new international organizations. IOMP became an organization having formal relationship with International Commission on Radiological Protection (ICRP) in 2018 and also signed a MoU with International Society of Radiology (ISR) in 2019.

- IOMP framework for accreditation of events for continuing professional development (CPD). The framework document prepared by ETC was approved in early 2019. Also, IOMP Guidelines on accreditation of residency program were approved. ETC has provided certification to a good number of programs. Please see ETC report for list of activities. Thanks Arun for leading this activity.

- Regular release of publications. The journal Medical Physics International (MPI) has been led by Slavik Tabakov and Perry Sprawls. In addition to two regular issues every year, there have been many special issues on history of medical physics. Slavik also takes care of the work of the history sub-committee (HSc) and these issues form a good contribution of HSc. Two issues of eMPW are regularly released, again with special issues from time to time. Thanks to Magdalena.

- Review and endorsement of various publications of international organization. The following publications were reviewed mostly

by the Science Committee and some endorsed as indicated against each. Thanks to reviewers and Geoff for leading the actions

- o IAEA Guidelines on Certification of Clinically Qualified Medical Physicist (2019), reviewed by ETC-Endorsement

- o IAEA publication on Radiation Protection in Dental Radiology (2020)-Endorsement

- o Draft ISO standard on "Reference measurement standard specifications for the calibration of gamma-ray spectrometers (2020)-Review

- o ICRP publication on dose quantities (2020)-Review

- o WHO publication on Priority medical devices list for the COVID-19 response and associated technical specifications. Interim Guide 13 Nov 2020

- o WHO document on Minimum requirements of Ultraportable radiographic system, digital (2021)- Review

- o Joint position statement of IAEA with IOMP on cumulative doses from recurrent imaging (2021)- Endorsement

- o Enhancing radiation safety culture in healthcare: Joint publication of IOMP-IRPA-IAEA and WHO published by WHO (2021)

- Cooperation with Radiology societies. We were invited by the organizers of the 19th AOCR (Asia-Oceania Congress of Radiology) to host s IOMP Meets AOCR session in AOCR originally scheduled for July 2020 but moved to July 2021 due to pandemic.

- Committees: Every committee has been engaged in their respective tasks and have delivered good results which can be seen in their reports. Besides above mentioned actions by some committees, other actions are;

- o Awards and Honors Committee shared a big burden of work of evaluating nominations and deciding awards which is a very responsible activity and involves heavy workload. Thanks to Simone Kodlulovich Renha, Chair and all members of AHC for this important work.

- o PRC has been instrumental in maintaining library and equipment donation program, besides travel awards for participating in ICMP and WC. Thanks to Yakov Pipman, Chair and members of PR and sub-committees.

- o IOMP became supporting organization of following journals: European J Med Phys (Physica Medica) and J of Medical Physics of the Association of Medical Physicists of India (AMPI). These journals became official journals of IOMP. Thanks to Paolo Russo, Chair, Publication Committee and members PC.

- o The agreement with CRC press was renewed in April 2019. Thanks again to Paolo.

- o Providing list of 100 emails from developing countries for free electronic subscription to Medical Physics as per agreement with

AAPM. Thanks again to Paolo and Eva for coordinating this activity.

- o Renewal of cooperation with WHO as an NGO in official relationship. Thanks to John Damilakis for joining me in dealing with WHO.

- o IUPAP. John Damilakis has been a representative of IOMP to IUPAP. We have been having good support of IUPAP for travel support for various conferences and for IUPAP award. Thanks to John for leading this.

- o COVID-19 resources page was added on IOMP website. Thanks to Magdalena.

- o Women Sub-Committee (WSc) was originally led by Virginia Tsapaki. It was taken over by Magdalena when Virginia left the charge. Please look for report of WSc which has been very active. Thanks to both Virginia and Magdalena

We are a modest low budget organization with only a part time staff at the Headquarter in York, UK- Ms Sally Hawking. She has been an immense resource and is a very skilled worker. I wish to thank Sally for her great contribution. Ibrahim Duhaini, Treasurer and Sally have kept our budget in good shape despite challenges. We have added to our reserves during the past 3 years, despite many additional activities. However, we are aware that there is lot of potential which can be tapped and would hopefully be more successful in future.

It has indeed been very useful learning from participation in IOMP events for the past 26 year. I recall my participation in the World Congress on Medical Physics and Biomedical Engineering (WC1994) in Rio de Janeiro. Since then, I have the privilege of participating in every World Congress. IOMP added ICMPs in 2005 and I have loved participating in all ICMPs since 2008. This has helped me to understand the needs of our colleagues at international level besides my 11+ years of service at the IAEA. However, I welcome your feedback and suggestions always.

As indicated above, all this cannot be possible without the active cooperation of the whole team in ExCom to whom I am immensely grateful. The leadership colleagues in international organizations, regional and national organizations, and of course you all- the Council members, have been highly cooperative all these years for which I wish to express my most sincere thanks and appreciations. I may not have interacted with memberships of our Committees and sub-committees directly, but your work has been noticed through inputs provided by Chairs. Thanks indeed for lending your services as volunteers which is highly appreciated. Finally, the SG acts as the right hand of the President. I wish to thank profusely both Virginia Tsapaki and Eva Bezak for their wonderful cooperation and hard work without which hardly anything as stated above would have been possible.

Vice President Report

Prof. John Damilakis,
IOMP Vice President and President-elect



Main activities

International Union of Pure and Applied Physics (IUPAP)

To strengthen Medical Physics science within IOMP and to link IOMP to IUPAP the International Commission on Medical Physics (ICoMMP) has been established which has been approved as IUPAP Affiliated Commission 4 (AC4). The IUPAP Council and Commission Chair annual meeting was held virtually from the 13th – 21st of October 2020. The Chair of the AC4 attended the meeting and presented the activities of IOMP.

IUPAP sponsors important scientific events related to its mission. The IUPAP funding has been used to organize a series of World Congresses and International Conferences on Medical Physics (World Congress in Toronto 2015, International Conference in Bangkok 2016, World Congress in Prague 2018).

Moreover, IUPAP supported the International Conference on Medical Physics 2019. The Chair of the AC4 is planning to submit a proposal for the sponsorship of the World Congress of Medical Physics and Biomedical Engineering 2022 in the beginning of May 2021.

The IUPAP Young Scientist Prize is granted by IUPAP AC4. The 2020 Young Scientist Prize was awarded to Dr Jaydev K Dave.

Collaboration with the World Health Organization (WHO)

The IOMP has been in official relations with WHO as a non-State actor. The President and Vice-President of IOMP discussed with WHO representatives the future collaboration workplan for the period 2021-2023. A template with current and future activities was completed and online meetings were organized. Both parties decided to further continue with official relations. J. Damilakis attended the 147th session of the Executive Board on Friday, 22 May 2020

World Congress on Medical Physics and Biomedical Engineering (WC2022)

As member of the WC2022 'Education and Professional Standards' Committee, Prof. J. Damilakis has submitted a preliminary list of topics based on IOMP School Board members' feedback.

International Conference of Medical physics (ICMP 2023)

Two bid proposals were received to hold ICMP 2023, from India and Poland. As Chair of the IOMP ICMP review committee J. Damilakis worked with Prof. E. Bezak, Prof. M. Stoeva and Prof. G. Ibbott to evaluate the 2 applications.

International Medical Physics Week (IMPW) 2021 webinars

For a second consecutive year IOMP celebrated the International Medical Physics Week by organizing a series of webinars dedicated to various professional, educational and organizational aspects of Medical Physics. Prof. John Damilakis co-organized these webinars with the IOMP President Dr. Madan Rehani.

Secretary General Report

Eva Bezak
IOMP Secretary General



Member communication

On average up to 10 emails are received daily – from ROs, NMOs, interested individuals, conference organizers and other partners, including the IAEA, WHO and other professional societies. Since the Covid-19 situation, many webinar invitations and advertisements are being sent to IOMP, as the new way of education provision and professional networking.

Warning: Fraudulent emails pretending to be from IOMP and IUPESM or their officers are known to have been sent to various colleagues. We advise to exercise caution, always check the email address and beware of suspicious message content.

Member database updates

IOMP NMO/RO contact details and the relevant databases are

updated on an ongoing basis as we receive notifications for the NMOs, either via email or the relevant form on the IOMP website (the preferred way of contact notification): https://docs.google.com/forms/d/e/1FAIpQLSc6aOY5O5vNxq08yD9ynfJE_k6dHY51nO2Xs2XZdPnl_aBaszg/viewform?c=0&w=1

Member status changes

1. The Association of Medical Physicists of Georgia (AMPG) has asked to be removed as the NMO as the organization has been confirmed defunct. The NMO status for the AMPG has been confirmed removed by the IOMP ExCom. This is to be next presented to the Council at the upcoming meeting on 1 June 2021. A new medical physics organization has been already founded in Georgia and will ask for an NMO status once the process with the AMPG has been finalized.

2. Discussions (P, VP, SG) were held with the 2 current medical physics organizations in Sri Lanka. They were encouraged to work together to determine the next steps and which organization will become the official NMO of IOMP.

Conference support

In 2020 the IOMP endorsements with funding were given to: Morocco (FAMPO regional meeting), Thailand (AFOMP/SEACOMP regional meeting), Bulgaria (XIII National Medical Physics and Biomedical Engineering Conference NMPEC-2020), Mexico (XVI Mexican Symposium on Medical Physics). Changes to dates and conference formats occurred due to the COVID-19 pandemic and financial endorsements have been adjusted accordingly (see below).

In 2020, the IOMP endorsements without funding (as per application requests of the NMOs) were given to Japan (121st JSMP meeting), Germany (8th MR in RT 2020 Symposium), Bangladesh (AOCMP 2021), Saudi Arabia (International Conference on Radiation Medicine 2020).

In 2021 the IOMP conference endorsements were given to MEFOMP (Virtual MEFOMP Medical Physics Conference) and India (Conference on Radiation in Health Care, Jaipur). Both were endorsed without funding.

Due to the effect of COVID-19 pandemic, the following rules regarding the IOMP conference

financial sponsorship have been adopted:

a) Any financial support will be provided post-conference, subject to sending a satisfactory conference report to IOMP.

b) In case there are valid reasons for advance payment, they would be considered on merit.

c) If the event is a virtual event, the sponsorship amount will be reduced to up to 40% of the amount for a face to face event, due to reduced costs of a virtual event.

ICMP 2023/2024

Two (2) bids were received within the deadline to hold the next International Conference on Medical Physics (ICMP) in 2023/2024. An IOMP review group was formed (Damilakis (chair), Bezak, Ibbott, Stoeva) to evaluate the proposals. The review group agreed that both proposals were of high quality, were detailed, innovative and each had positive aspects. However, judging based on the presentations and discussions during the online meetings, the Review Group believes that India's congress organizing committee is better prepared to promote the Conference at the regional and international levels and also had the support of the local regional organization, AFOMP. Consequently, the vote of the Review Group was for the proposal from India. ExCom and

Council voting ensued. 73 valid votes were received from the Council (out of 131 all valid Council votes): 57 (78%) votes were in favour of hosting the ICMP in India and 16 (22%) were for Poland. As such the next ICMP will be held in Mumbai India in late 2023.

Covid-19 Pandemic Impact on IOMP activities

The Council was contacted on 7th October 2020 by IOMP, concerning the postponement of IUPESM WC2021 and of IOMP elections, as a result of the COVID-19 global pandemic. There were only a few responses received from the IOMP National Member Organisations; all expressing understanding of the decision in view of the current crisis. There were no responses received against the decision to postpone the IOMP activities as follows:

a) WC2021 will be postponed to 11-17 June 2022.

b) The next IOMP ExCom elections will be held in conjunction with IUPESM WC2022 and thus will be delayed by one year to avoid any disruption in the cycle with WCs and ICMPs.

c) The term of the current ExCom will be extended by 12 months – till the WC2022.

d) WC2024 will be postponed by ~12 months to 2025.

e) The next International Congress on Medical Physics (ICMP) will be held in the second half of 2023 or even early 2024.

f) All subsequent meetings (ICMP, IUPESM WCs) will re-start triennially as per usual from 2022.

Publication

IOMP Women in Medical Physics group together with the Women in Medical Physics and Biomedical Engineering Task Group of the International Union for Physical and Engineering Sciences in Medicine (IUPESM) conducted a survey on the effects of COVID-19 pandemic on medical physics and biomedical engineering workforce. Survey results has been published in the Gender Work & Organization Journal: The impact of COVID-19 pandemic on gender-related work from home in STEM fields—Report of the WiMPBME Task Group

<https://doi.org/10.1111/gwao.12690>

Further survey data analysis is ongoing.

Webinars

These are occurring regularly with excellent world-wide participation. The SG was involved in topic and speaker selection, as well as webinar moderation.

Past President Report

Slavik Tabakov

IOMP Past President



Summary of the duties performed by the Immediate Past-President of IOMP – these include:

1. Vice-President of the IUPESM – introduced a new honour FIUPESM and worked on the update of the Contract for the World Congress and also the revision of the IUPESM Statutes and Bylaws – see separate report from IUPESM Vice-President
2. Co-Editor of the IOMP Journal Medical Physics International (MPI) – 6 Regular and 5 Special

Issues published – see separate MPI report

3. Chaired the IOMP History Sub-Committee (HSC) – full update of the IOMP History Tables made – see separate HSC report

4. Took part in the BoD of the IOMP Company – part of the IOMP Company Report

5. Attended on behalf of IOMP the AAPM-ISEP course at Slovenia, 2-4 July 2018, with report on Medical physics global workforce

6. Attended on behalf of the IOMP a meeting in the European Parliament, 11 Oct 2018 Belgium, to request the inclusion of specific medical engineering and physics project in the EU research activities

7. Attended on behalf of IOMP the International Conference ICBHI in Taiwan, 17-19 April 2019 with report on medical physics education development

8. Attended on behalf of IOMP the International Conference on Clinical Engineering in Italy, 20-22 October 2019, with report on collaboration between medical physicists and engineers

9. Delivered on behalf of the IOMP a Virtual seminar in Oct 2019, part of the IOMP School, on levels of e-learning effectiveness

10. Attended on behalf of IOMP the IDMP Virtual Conference of AMPI in India, 7 Nov 2020, with a report on history of medical physics

11. Attended on behalf of IOMP the Virtual Conference AOCMP in Thailand, 3-5 Dec 2020, with a report on medical physics e-learning development

12. Prepared a report on behalf of IOMP about the activities of medical physics journals during the current pandemic, published by CRC in February 2021

IUPESM Vice President Report

Slavik Tabakov

IUPESM Vice President



The International Union for Physical and Engineering Sciences in Medicine (IUPESM) unites the International Organization for Medical Physics (IOMP) and the International Federation for Medical and Biological Engineering (IFMBE). The Union leadership is shared between senior colleagues from IOMP and IFMBE. The web site www.iupesm.org lists the current members of the IUPESM Administrative Council. Currently IUPESM has over 150,000 members in about 100 countries. The aim of IUPESM is to contribute to the advancement of physical

and engineering sciences in medicine for the benefit and wellbeing of humanity.

During the term 2018-2022 the IUPESM President is Prof. James Goh (Past President IFMBE) and Vice-President is Prof. Slavik Tabakov (Past President IOMP). The role of the Vice-President includes also Chairing the IUPESM Awards Committee and the ad-hoc IUPESM Rules Committee.

Related to the IUPESM Awards Committee, which the Vice-President chairs – we developed and introduced a new honour – IUPESM Fellowship. The honour is connected to a specially made Point-system and will be introduced regularly in future. This Fellowship was launched in 2020, to celebrate the IUPESM 40-th Anniversary. As inaugural Fellows (FIUPESM) were elected 58 colleagues from 26 countries. The Fellowship virtual ceremony was held in November 2020 .

Related to the Rules Committee, which the Vice-President chairs, we revised the Contract for the World

Congress on Medical Physics and Biomedical Engineering. This document was not reviewed for over 10 years. The new revised Contract was discussed and agreed both by IOMP and IFMBE. In 2020 it was signed with the WC2021 hosts from, Singapore. Due to the Covid19 pandemic, WC2021 was postponed for June 2022.

Another activity performed by the Rules Committee was the revision of the IUPESM Statutes and Bylaws. These have not been reviewed for 30 years. This activity is ongoing, aiming to be completed in second half of 2021. Also in process of development is the incorporation of IUPESM - creating an IUPESM Company, in a way similar to the IOMP Company created in 2017. The workgroup for this important activity includes S Tabakov, L Pecchia and S Keevil. It is expected this important activity to be assessed by the IUPESM Council during late 2021.

IUPESM seeks to contribute to the advancement of physical and engineering sciences in medicine for the benefit and wellbeing of humanity.



Prof. John Mallard



Prof. Robert L. Clarke



Prof. John "Jack" Hopps



Prof. Masao Saito



Prof. Olvind Lorentsen



Prof. Alexander Kaul



Prof. Lawrence H. Lanzl



Prof. Nandor Richter



Prof. Robert Nerem



Prof. John R. Cunningham



Prof. Orest Roy



Prof. Nillo Saranummi



Prof. Udipi Madhvanath



Prof. Jos Spaan



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Prof. Oskar Chomicki



Prof. Dov Jaron



Prof. Heikki Teriö



Prof. Joe Barbenel

IUPESM FELLOW 1980-2020



Prof. Joachim Nagel



Prof. Peter H. S. Smith



Prof. Barry J. Allen



Prof. Makoto Kikuchi



Prof. Ratko Magjarevic



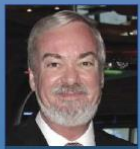
Prof. Alun Beddoe



Prof. George Mawko



Prof. Antonio Fernando
Catelli Infantozzi



Prof. Herbert Voigt



Prof. Fridtjof Nuesslin



Prof. Shankar M. Krishnan



Prof. Caridad Borrás



Prof. Kin Yin Cheung



Prof. Yimin Hu



Prof. James Goh



Prof. Slavik D. Tabakov



Prof. Madan Rehani



Prof. Tomas Kron



Prof. De Pei Liu



Prof. Monique Frize



Prof. Marc Nyssen



Prof. Eva Bezak



Prof. Ákos Jobbágy



Prof. Kang Ping Lin



Prof. Virginia Tsapaki



Prof. Howell Round



Prof. Magdalena Stoeva



Prof. John Damilakis



Prof. Timo Jämsä



Prof. Geoffrey S. Ibbott



Prof. Stephen Keevil



Prof. Leandro Pecchia

Treasurer Report

Ibrahim Duhaini
IOMP Treasurer



During the last six months, the following activities have been executed:

1. Reviewing and approving ExCom expense claims, invoices, bills and other incidentals.

2. Sending membership Fees letter to all NMO. See below.

3. Preparing IOMP Budget for 2021. Treasurer Summary Report

4. Following up and processing transactions of the IOMP Company Account.

5. Performing other related duties with the ExCom members, IOMP Accountant and Administration Office.

6. Sending invitation letters to corporate and vendors. See below.

Invitation letters were sent to 30 companies see below is the list. Elekta and Sun Nuclear has responded and are willing to pay the corporate fees. For others, a reminder note will be sent by the end of this month.

- *MuCheck - Oncology Data Systems, Inc.*
- *Philips Healthcare*
- *Prowess Inc.*
- *Radcal Corporation*
- *Radiation Products Design Inc.*
- *Radiological Imaging Technology, Inc.*
- *RaySearch Laboratories AB*
- *RTI Electronics, Inc.*
- *ScandiDos*
- *Standard Imaging Inc*
- *Sun Nuclear Corporation*
- *University of Wisconsin Medical Radiation*
- *Varian Medical Systems*
- *ViewRay, Inc*
- *Vision RT*



- *Accuray*
- *Agfa NV*
- *Aktina Medical Corporation (USA)*
- *Best Medical International*
- *Brainlab*
- *Cancer CarePoint, Inc.*
- *CIVCO Radiotherapy*
- *Elekta*
- *GE Healthcare*
- *IBA Dosimetry GmbH*
- *K & S Associates, Inc.*
- *Landauer, Inc.*
- *MEDIRAY*
- *Mevion Medical Systems, Inc.*
- *Mission Search Inc.*



IDMP 2021 Report

Ibrahim Duhaini
IDMP Coordinator



During the last six months, the following activities have been executed:

1. Deciding on the IDMP 2021 Theme after sending a ballot of options. The winning theme is: "Communication the Role of Medical Physicists to the Public"
2. Sending the below IDMP 2021 Poster Design Invitation letter to all NMO's:

*Dear Medical Physicists' Colleagues,
We are looking for a creative Poster Design for the International Day of Medical Physics (IDMP 2021).*
The theme of this year is: "Communicating the Role of Medical Physicists to the Public"
Conditions:

1. One Page
2. In English
3. Reflects the above theme
4. One Design per person
5. Submit to Ibrahim Duhaini, IDMP Coordinator, at duhaini@yahoo.com
6. Deadline to submit the design is Friday May 14, 2021
7. For references to previous posters please visit <http://www.iomp.org/idmp>

The best design that receives the highest voting score from the IOMP ExCom will be adopted by IOMP and the winner will be announced and get acknowledged.

Looking forward to receiving your best designs.

*Ibrahim Duhaini
IDMP 2021 Coordinator*

I have received more than 12 poster designs so far. I will be sorting them out by the end of this week and send to ExCom to vote for the best design.

3. Sending the below Invitation letter to all presidents of NMO's:

Dear IOMP NMO presidents,
I hope this mail finds you well.
As for the IDMP 2021 planned activities, we would like to request from you to send us a short video message (20-30 sec) on behalf of your medical physics organization explaining to the public about the role of medical physicists in enhancing the diagnosis and treatment of diseases in your own language taking into consideration the theme: "Communicating the Role of Medical Physicists to the Public"
We appreciate receiving this video by June 15, 2021.
Also, encourage all medical physicists in your country to be engaged in local media (TV, Radio, Talk shows,...) and explain the role of medical physicists to the public in comprehensive and simple medical terms.
Best Regards,
Ibrahim Duhaini,
IDMP Coordinator

4. Sending the below Invitation letter to all presidents of RO's:

Dear presidents of the IOMP regional organizations,
I hope this mail finds you well.
As for the IDMP 2021 planned activities, we would like to kindly request from you to send to IOMP a short video message (20-30 sec) on behalf of your organization for this year taking into consideration the theme: "Communicating the Role of Medical Physicists to the Public".
We appreciate receiving this video by June 15, 2021.
Best Regards,
Ibrahim Duhaini,
IOMP Treasurer
IDMP Coordinator

Science Committee Report

Geoffrey S. Ibbott

Chair Science Committee



The IOMP Science Committee is responsible for disseminating current information to medical physicists; assisting in the planning and conduct of regional meetings on medical physics; contributing to and reviewing scientific documents prepared by organizations such as the ICRP, the WHO, and the IAEA; and participating in various forums for the generation of scientific information in medical physics.

The current Committee

membership is shown below:

Geoffrey Ibbott , Chair, USA
Abdalla Al-Haj, Saudi Arabia/MEFOMP
Sha Chang, USA
Lawrence Dauer, USA
XiaoWu Deng, China
Benedick Fraass, USA
Reinhard Loose, Germany/EFOMP
Mahadevappa Mahesh, USA
Malcolm McEwen, Canada
Hossein Mozdarani, Iran/MEFOMP

Wilbrod E. Muhogora,
Tanzania/FAMPO
Hugo Palmans, United Kingdom
Mark Rivard, USA
Maria Elisa Rostelato, Brazil/ALFIM
Ferid Shannoun, Austria
Vellaiyan Subramani, India
Yoshiharu Yonekura, Japan

The International Conference on Medical Physics (ICMP) was held in Santiago, Chile, 8-11 September 2019. This project consumed much of the effort of the Science Committee. Several committee members served on the ICMP Science Committee and helped to review nearly 400 abstracts that were submitted for oral and E-poster presentation. Several other SC members served on the ICMP Program Planning Committee and helped with the design of the program and assignment of presentations to sessions. As co-chair (with Maria-Ester Brandan of Mexico City) of the two committees, the SC Chair appreciated the amount of work required to recruit speakers, review proffered abstracts, and assemble a cohesive program that ultimately was valuable for the attendees and easy to navigate.

As most people know, the World Congress was postponed a year and now will be held in

Singapore in June, 2022. It is expected that members of the SC will contribute to the program committee for the WC 2022.

As an IOMP representative, the Chair attended the International Conference on Advances in Radiation Oncology (ICARO-3), held remotely by the IAEA in February 2021. Dr. Ibbott had participated in the ICARO-2 conference several years ago as presiding officer and presented on the state of medical physics following the original ICARO conference. Along those same lines, Dr. Ibbott made a presentation at ICARO-3 on “From ICARO-2 to ICARO-3: Physics”. He also presented on “Out of field doses” and “IOMP activities in medical physics education and training.” As chair of the IOMP’s Education and Training Committee, Professor Arun Chougule contributed greatly to this last presentation. Several members of the SC have contributed to preparation of a report by the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR). The final report has undergone extensive review by the Expert Group on Medical Exposures and by national contacts, and aspects of the work have been presented in several venues, including the

ICARO-3 conference. The final report is expected to be published in the next few weeks. An Invited Commentary was recently published in the European Journal of Medical Physics entitled “Patient doses from image-guided radiation therapy”. While this was not strictly a publication of the SC, conversations with SC members contributed to the article, as did the chair’s presentation, as an IOMP representative, at the 2017 meeting of the ICRP. The Commentary responded to the publication of several articles by IOMP President Madan Rehani and colleagues discussing the significance of the recent increase in the dose to the public from CT scans. The SC recently reviewed applications to the IOMP for sponsorship or support of educational and professional

development conferences in Iran, Thailand, Bangladesh, Morocco and India (in person), the Middle East (virtual), and Japan (hybrid). Before recommending support or endorsement of a conference, the committee considers the quality of the program and proposed speakers, and the potential benefit to be derived by the intended audience. The SC reviewed and commented on a number of draft documents during the past three years. Several were from the IAEA and included “Basic Safety Standards for nonionizing radiation”, “Enhancing Radiation Safety Culture in Healthcare” and “Radiation Protection in Dental Radiology”. The SC also reviewed a draft ISO standard on “Reference measurement standard specifications for the calibration of gamma-ray

spectrometers.” The SC comments were particularly useful as the chair participated in a joint working group comprising representatives from the ISO and the IEC. In addition, the SC reviewed and submitted comments on several draft reports from the WHO on the specifications and minimum requirements for Radiotherapy Units, CT Scanners, Mobile Digital Radiographic units, and Ultraportable Digital Radiographic Systems. We also reviewed and commented on a draft of the WHO’s Global Patient Safety Action Plan. The chair is immensely grateful to the members of the Science Committee for their responsiveness and thoughtful reviews of the applications and documents received by the committee.



Publications Committee Report

Paolo Russo

Chair Publications Committee



Chair

Paolo Russo - Editor of *Physica Medica* – European Journal of Medical Physics (EFOMP Official Journal)

Editor Members

Jamie Trapp - Editor of *Physical & Engineering Sciences in Medicine* (proposed)

Jong Min Park - Editor of *Progress in Medical Physics*

Ambika Pradhan - Editor of *Indian Journal of Medical Physics*

Magdalena Stoeva - (Secretary) ETechnical editor of *Medical Physics International* (IOMP Official Journal), Editor of *eMPW*

Jeffrey Williamson - Past Editor of *Medical Physics*

John M. Boone - Editor of *Medical Physics* (proposed)

Katia Parodi - Editor of *Physics in Medicine and Biology* (proposed)

Michael David Mills - Editor of *JACMP*

E. Ishmael Parsai - Past Editor of *e-Medical Physics World Newsletter*

Simone Kodlulovich Renha - Editor of *Revista Latinoamericana de Física Médica*

Nobuyuki Kanematsu - Editorial Board for *Radiological Physics and Technology*

IOMP Related Members

Slavik Tabakov - Past immediate President of IOMP

Virginia Tsapaki - Past immediate editor of *e-MPW / SG of IOMP*

John Damilakis - Vice President of IOMP

Siyong Kim - Representative of IOMP PRC

The following tasks are assigned to the Publications Committee (PC):

1. To improve medical physics worldwide by providing or supporting appropriate publications or knowledge generated as a result of research, education and professional programs of the organization. The focus of the Committee includes both printed and electronic documents.

2. To manage the operation of *Medical Physics World*

3. To oversee the publication agreements with publishers of the official IOMP journals

4. To make nominations of editorial board members and other such appointments as necessary to the IOMP Executive Committee

5. To identify the need for international scientific, research and professional publications through consultation and cooperation with other committees and task groups of the Organization

6. To assist Regional and National Organizations of medical physics to prepare proposals for publication of new materials in traditional or new formats as necessary to extend the international medical physics knowledge base.

The PC has analysed the application of the *Journal of Medical Physics* to become an official publication of IOMP: ExCom has approved this request in July 2020.

The PC has then finalised the Guidelines for becoming an IOMP official journal, then approved by ExCom. On this basis the PC is finalising – with no contrary expression – the

analysis of the application of the journal Radiological Physics and Technology

(<https://www.springer.com/journal/12194>), to become official publication of IOMP.

As regards the CRC Press Series in Medical Physics and Biomedical Imaging, a publication series coordinated with IOMP which represents the official book series of IOMP, a new agreement was approved in Spring 2020. The implementation

of the new agreement is still ongoing and will be finalised soon. The CRC Press publisher asked for support in reviewing the books of the Series; the PC Chair has promoted reviews in MPI journal and other publications of new titles in the Series.

The PC Chair is also collaborating with the President for organizing IOMP webinars on scientific publishing (November 2020 and May 2021).

With the help of the President and the SG, the PC Chair is preparing the new list of free annual subscribers to Medical Physics Journal.

The PC Chair is proposing to replace old Editors with new Editors of medical physics journal (see list in red above)

For any query related to IOMP PC, please contact me at russo@na.infn.it.

Education and Training Committee Report

Arun Chougule

Chair Education and Training Committee



The Education and Training Committee [ETC] of IOMP is entrusted with development of programs related to education and training of medical physics, to promote internationally sponsored education and training programs, consider application from national and regional organisation for IOMP endorsement and funding, to harmonise and standardize medical physics education program, accreditation of educational, residency and CPD program. The member of ETC and Accreditation Board [AB] are working hard to fulfilling the aims and objectives of ETC and contributing for betterment of medical physics education & training in IOMP member countries.

During last year [April 2020- April 2021] IOMP ETC has done following tasks

1. The Medical Physics Education programs being conducted in all the regions of IOMP are updated and the IOMP website is updated

with the updated list of MP education programs.

2. The IAEA Training Course Series- TCS 71 on Guidelines for Certification of Clinically Qualified Medical Physicist endorsed by IOMP and IMPCB was released in February 2021; Chair ETC was one the drafting committee member and contributed for the drafting of the guidelines.

3. The IOMP accreditation Board has accredited three educational programs and granted CPD- CME points during the period and received fees of 850 US\$ to IOMP

i) SCMPCR E-learning Program (ELP-03): Basic Principles and Advanced Clinical Applications (webinar platform) 5-26 Feb, 2021

ii) CPD: Hands-on Workshop: Commissioning, Planning and Quality Control for the IMRT/VMAT Treatment Techniques. 25th – 27th April 2020, University of Colombo, Sri Lanka and National Cancer, Institute, Maharagama, Sri Lanka

iii) Universität Heidelberg (Germany) Online Teaching Course: Particle Therapy, 2020

iv) MEFOMP virtual conference, 5 -7 April 2021.

4. With efforts ETC IOMP, we could get a session – IOMP session on accreditation program during planned JSMP meeting at Yokohama [9 – 12 April 2020] which was organized as a web based meeting. The ppt

presentation was delivered by me as an invited speaker and it was an opportunity to popularize IOMP accreditation programs.

5. ETC has reviewed two applications received from the conference organizers for IOMP endorsement and/or funding and the report submitted in time for approval to IOMP EXCOM.

6. ETC is decimating all the publications. Announcement and activities of IOMP to its member countries so that medical physicists get benefitted

7. ETC has actively participated in programs on IMPW 2021 and supported the IOMP Schools through webinars.

8. Working closely with WC2022 organizers for sessions on Education and Training of Medical Physics

9. Represented as IOMP nominee in IAEA technical for curriculum for radiation professionals.

10. Contributed to radiation safety culture document of WHO

11. Encouraging institutes/ Universities and the medical physics educators for supporting the accreditation program of IOMP. Delivered invited talks on various platforms on benefits of IOMP accreditation of education program, CPD programs and residency programs.

12. Due to COVID pandemic in person visits/assessment of accreditation applications are on hold and/or delayed.

Report of Awards & Honours Committee

Simone K. Renha

Chair Awards & Honours Committee



Members:

Simone K. Renha (Chair)

Cyril Schandorf

Pedro Ortiz

Tomas Kron

Patricia Mora

Leif Schröder

Keiichi Akahane

Huda M.Al-Naemi

Melissa C. Martin

Klaus Bacher

Roger Price

Moulay Ali Nassiri

Madan Rehani

John Damilakis

1. Introduction

In this report, the A&H committee is pleased to introduce its new members. They are very internationally recognized medical physicists who bring their experience to

continuing the improvement of A&H activities.

In addition, the main activities are presented.

2. Presentation of new members of the A&H committee.

Last year, three of the A&H members had to leave our committee. We have much to thank Steve Balter, Eliseo Vaño, and Jim Thurston, for their excellent work.

This year, we were pleased to welcome as new members of the committee, the professors Klaus Bacher, Roger Price and Moulay Ali Nassiri.

The following is a brief summary of the career of these new members.

2.1 Klaus Bacher



Klaus Bacher is a medical physics expert in the disciplines of radiology and nuclear medicine, recognized by the Federal Agency of Nuclear Control of the Belgian government. He is professor and chairman at the Division of Medical Physics of the Ghent University (Belgium). There, he is lecturing medical imaging, medical physics and radiation protection courses. He is the current president of EURAMED (European Alliance for Medical Radiation Protection Research), president of BNEN (Belgian Nuclear Education Network) and vice chair of the radiation protection committee of EANM (European Association of Nuclear Medicine). His research interests mainly focus on dose-image quality assessments of new diagnostic imaging modalities and monte-carlo modelling of patient and staff dose in X-ray imaging and diagnostic and therapeutic nuclear medicine applications. He is (co)author of more than 60 publications in peer-reviewed journals and has given more than 100 invited presentations at national and international conferences. He was/is involved in different major research projects funded by the European Commission.

2.2 Roger Price



Roger Price did a PhD in atomic physics, migrated to biophysics and then to medical physics, in the 1970s. Following 15 years in endocrinology, biochemistry and clinical trials - focused on metabolic bone diseases, radiological detection of fracture risk and applications of stable tracer isotopes - he subsequently headed a hospital medical physics and engineering department in Western Australia for 25 years. He was privileged to work and collaborate with many fine health professionals across the world, including in UK, USA, Indonesia and South & West Africa, eventually focusing on development and applications of PET radiopharmaceuticals. His career spanned 130 publications/book contributions and involvement with several national committees and learned societies, including ACPSEM. His most rewarding contribution was teaching for 35 years at the University of WA, as well as guiding numerous postgraduate

students to achieve their goals. Roger has recently retired, but continues to research radioisotopes production and applications.

2.3 Moulay Ali Nassiri



Moulay Ali Nassiri, PhD, medical physicist at the Centre Intégré Universitaire de Santé et de Services Sociaux de l'Estrie - Centre Hospitalier Universitaire de Sherbrooke (CIUSSS de l'Estrie - CHUS), Québec, Canada, Associate Professor at the Sherbrooke University, Quebec, Canada, membership to the Canadian College of Physicist in Medicine (MCCPM), member of the Imaging Committee of the Canadian Organisation of Medical Physicist (COMP), Chair of Radiation Protection Committee of the Association des physiciens et ingénieurs biomédicaux du Québec (APIBQ), Québec, Canada.

3. IOMP Awards 2020

In August 2020, the A&H committee was glad to inform the IUPAP Young Scientist Award. The winner was Jaydev

K. Dave, nominated by AAPM, for his pioneering work in "Utilizing subharmonic signals from ultrasound contrast agents (encapsulated microbubbles) for non-invasive real-time in vivo cardiac pressure estimation.". He was born in India, and currently he is an Associate Professor of Radiology at the Thomas Jefferson University in Philadelphia, PA. Jaydev is actively involved in ultrasound and applied physics research.



During the IOMP celebration of the International day of medical physics 2020, the IDMP award winners were presented. The A&H committee had the pleasure to receive nominations from all regions and the opportunity to give recognition to all these medical physicists who have made significant contributions to promoting Medical Physics, including the development of scientific work, improvements in patient care, and/or contributions to education and training in medical physics. The winners of IDMP award 2020 are:

AFOMP



Tae Suk

ALFIM



Carlos E.V. de Almeida

EFOMP



Oliver Blanck

FAMPO



Christoph Trauernicht

MEFOMP



Mohammad H. Kharita

SEAFOMP



Djarwani S. Soejoko

AAPM



Robert Jeraj

4. A&H committee activities

In the last months, the A&H committee has been working on the A&H Manual, originally prepared by Tomas Kron in 2015. The objective was to update the document considering the new

awards and the improvements in the evaluation methodology that was implemented as well as to include the procedures for granting new awards.

The announcement of IUPAP Award was already prepared and

published on IOMP website. The IDMP announcement was also prepared and will be published soon. For these awards, we expect many nominations again this year.

Report of Medical Physics World Board and Web Subcommittee

Magdalena Stoeva

Chair Medical Physics World Board and Web Subcommittee



IOMP MPWB & Web subcommittee are dedicated to ensure the communication between IOMP and our members worldwide. During the difficult times of the COVID-19 pandemic the online resources seem to be the main communication channel and tool to reach-out to individual MPs worldwide.

IOMP Medical Physics World Board's is charged with the following:

- To contribute to the advancement of medical physics worldwide by providing a bulletin to all members covering IOMP activities and matters of interest to medical physicists.
- To disseminate information, promote communication and provide news of use for all countries but especially in developing countries.

- To seek out information of use to IOMP members from the Officers, Committee Chairs, World Congress Presidents, Regional meeting Organizers and other representatives of IOMP functions and communicate such information to the worldwide membership.
- To assist the IOMP Officers to improve communications by suggesting publication alternatives and preparing proposals for improved methods of achieving MPW goals.
- To seek advertising support for MPW to achieve self-funding of the bulletin.

Membership

IOMP MPWB

- Magdalena Stoeva, Chair
- Ibrahim Duhaini, Calendar Editor
- Madan Rehani (IOMP P)
- John Damilakis (IOMP VP)
- Eva Bezak (IOMP SG)
- Slavik Tabakov (IOMP PP)
- Paolo Russo (PC)
- Simone K. Renha (AHC)

IOMP Web Subcommittee

- Magdalena Stoeva, Chair
- Madan Rehani (IOMP P)
- John Damilakis (IOMP VP)
- Eva Bezak (IOMP SG)

- Slavik Tabakov (IOMP PP)
- Geoffrey Ibbott (ScC)
- Arun Chougale (ETC)
- Yakov Pipman (PRC)
- Paolo Russo (PC)
- Simone K. Renha (AHC)
- Johnson Darko (North America)
- Rajni Verma
- Francis Hasford (Social Media)
- Chai Hong Yeong (Newsletter)

IOMP MPWB and Web subcommittee major activities in the period April 2020 – April 2021:

- MPW regular issues, June 2020 and December 2020
- Design, release and regular support for the IOMP website and social media – activities schedule, reports, video messages, stats and analysis.
- Regularly providing updated events calendar thanks to calendar editor Dr. Duhaini.
- Provides technical support for the development and dissemination of the IOMP Newsletter, including Mail Chimp platform, production of regular newsletters (bi-monthly), statistics and analysis
- Provides technical and marketing support the IOMP Webinars

- Provides support for the production of the MPI journal, incl. the SI on History of Medical Physics
- Regular social media and MEDPHYS lists related activities

- Support for IMPW 2020 & 2021 – web presence, webinars, marketing, analysis

During the 2018-2022 term The official IOMP bulletin Medical Physics World celebrated its 35th anniversary.

35 YEARS

MEDICAL PHYSICS WORLD

Brazilian Association of Physics in Medicine, History and Founding

PROUDLY SERVING

MEDICAL PHYSICS COMMUNITY WORLDWIDE

History Subcommittee Report

Slavik Tabakov

Chair History Subcommittee



During the period June 2018 - June 2021 the members of the IOMP History Sub-Committee included:

Slavik Tabakov – Chair
KY Cheung
Colin Orton
Madan Rehani (Ex-Officio)
John Damilakis (Ex-Officio)
Paolo Russo (Ex-Officio)

The history of the IOMP shows the contribution of the Organisation to the global development of medical physics and the colleagues who have taken part in it. During the period 2018-2021 the History Sub-Committee (HSC) revised and updated all existing IOMP History Tables. Information was collected from all IOMP Committees. The final result is 32

tables with a volume of 164 pages. The revision included consolidating tables and adding tables related to various IOMP activities during the past 10 years. The History tables were initiated in 2012, these were updated in 2018 and in 2021 and uploaded to the IOMP website.

Another activity closely related to the history of the profession was the growth of the project History of Medical Physics, associated with the IOMP Journal Medical Physics International. This activity, launched in 2016, has now three Co-leads: S Tabakov, P Sprawls and G Ibbott.

During the period 2018-2021 five Special Issues on History of Medical Physics with a volume of 620 pages were produced. The issues covered the history of: Fluoroscopy; Mammography; Dental radiography; Contrast media; Computed tomography; Cobalt 60 therapy; Professional Development in Africa; Professional Development in S-E Asia; Professional Development in Eastern Europe; Ultrasound in Medicine; Various Ultrasound metrology methods; Various Ultrasound imaging methods; Doppler ultrasound; HIFU therapy.



Women Subcommittee Report (IOMP-W)

Magdalena Stoeva

Chair Women Subcommittee



IOMP Women Subcommittee's objective is in compliance with the main IOMP mission to advance medical physics practice worldwide by disseminating scientific and technical information, fostering the educational and professional development of medical physicists, and promoting the highest quality medical services for patients. We are focused on various types of activities re to assisting women MPs with their professional development and attracting more women to medical physics and STEM in general.

IOMP Women subcommittee is charged with the following:

- Develop, implement and coordinate tasks and projects related to the role of females in medical physics scientific, educational and practical aspects.

- Popularize the role of the women in medical physics and encourage female medical physicist to advance in the profession.

- Provide regular status/progress updates to the IOMP on all tasks and projects related to the IOMP Female Group.

- Promote the contribution of female medical physicists at major scientific conferences such as WC and ICMP

Membership

IOMP Women Subcommittee 2018-2022 members:

- Virginia Tsapaki, Greece – Chair (June 2018 – March 2020)
- Magdalena Stoeva, Bulgaria – Chair (April 2020 –)
- Laura Cervino, USA
- Simone Kodlulovich, Brazil – SG
- Anchali Krisanachinda, Thailand
- Hasin Anupama Azhari, Bangladesh
- Rajni Verma, India
- Nadia Octave, Canada
- Eva Bezak, Australia
- Huda Al-Naemi, Qatar
- Chai Hong Hong, Malaysia
- Zakiya Al-Rahbi, Oman
- Elina Samara, Switzerland
- Savanna Nyarko, Ghana
- Hanan Aldousari, Kuwait
- Lucie Sukupova, Czech Republic

IOMP Women subcommittee major activities in the period April 2020 – April 2021

The COVID-19 pandemic changed not only everyone's daily routines, but also the way we work. Unfortunately this had negative effect over the activities of the IOMP Women Subcommittee which rely mainly on in-person meetings/event and networking. Regardless of these limitations IOMP-W can report a number of activities:

- Webinar: Challenges and Contribution of Women in STEM: Medical Physics, Dec. 1, 2020, Organized by BMPS, IOMP-W, AFOMP

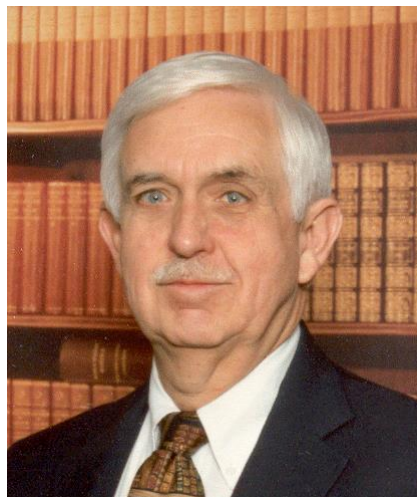
- Contribution to IUPESM WiMPBME publication Barabino, G., Frize, M., Ibrahim, F. et al. Solutions to Gender Balance in STEM Fields Through Support, Training, Education and Mentoring: Report of the International Women in Medical Physics and Biomedical Engineering Task Group. *Sci Eng Ethics* 26, 275–292 (2020). <https://doi.org/10.1007/s11948-019-00097-0>

- Contribution to IUPESM WiMPBME publication Frize, M., Lhotska, L., Marcu, L. G. et al. The impact of COVID-19 pandemic on gender-related work from home in STEM fields—Report of the WiMPBME Task Group. *Gender, Work & Organization* (2021). <https://doi.org/10.1111/gwa>

- International women's day

Medical Physics International (MPI) Journal and its History Special Issues June 2018 – June 2021

Slavik Tabakov and Perry Sprawls
MPI Co-Editors



Medical Physics International journal (MPI) was established by the IOMP in 2012 specifically to provide free support to all medical physicists in fields related to educational and professional issues. As per the agreement with the other

Medical Physic Journals, MPI does not publish research papers. It is a valuable supplement to the other medical physics journals that publish peer-reviewed research reports. This free IOMP e-Journal (www.mpijournal.org) has two regular issues per year plus Special Issues dedicated to the History of Medical Physics.

In the period June 2018 – June 2021 the MPI Journal published:

6 Regular Issues with c.140 papers, totalling about 620 pages

3 Annexes with abstracts from International Conferences, totalling about 710 pages

5 Special Issues with 22 History articles, totalling about 440 pages

One specific activity which the MPI Journal initiated in this period was including of issues focussing on the IOMP Regional Organisations. The MPI Regular Issues included focussed publications from: ALFIM (2019, No.1 - 6 papers from the Latin America region); FAMPO (2019, No.2 - 10 papers from the African Region); SEAFOMP (2020 No.1 - 10 papers from the South-East Asia Region); AFOMP (2020 No.2 - 14 papers from the Asia-

Oceania region), MEFOMP (2021 No.1 - 13 papers from the Middle-East region). These issues show the remarkable progress of medical physics in these Regions over the past years. This was also supported with some papers about achievements and PhD abstracts from the Regions.

Several specially commissioned papers were published showing the activities of colleagues during the pandemic. Together with these, a number of papers related to educational resources and innovative practices, as well as book reviews, were also published. The coming regular issue 2 for 2021 will focus on the professional development in the EFOMP region.

The History-related Special Issues also made good progress. These MPI Special Issues are now edited by S Tabakov, P Sprawls and G Ibbott. The papers in these issues will be listed in the report of the History Sub-Committee. Other History related Special Issues are in preparation for 2021.

During the difficult global period, associated with the Covid-19 pandemic, the MPI Journal continued to provide the

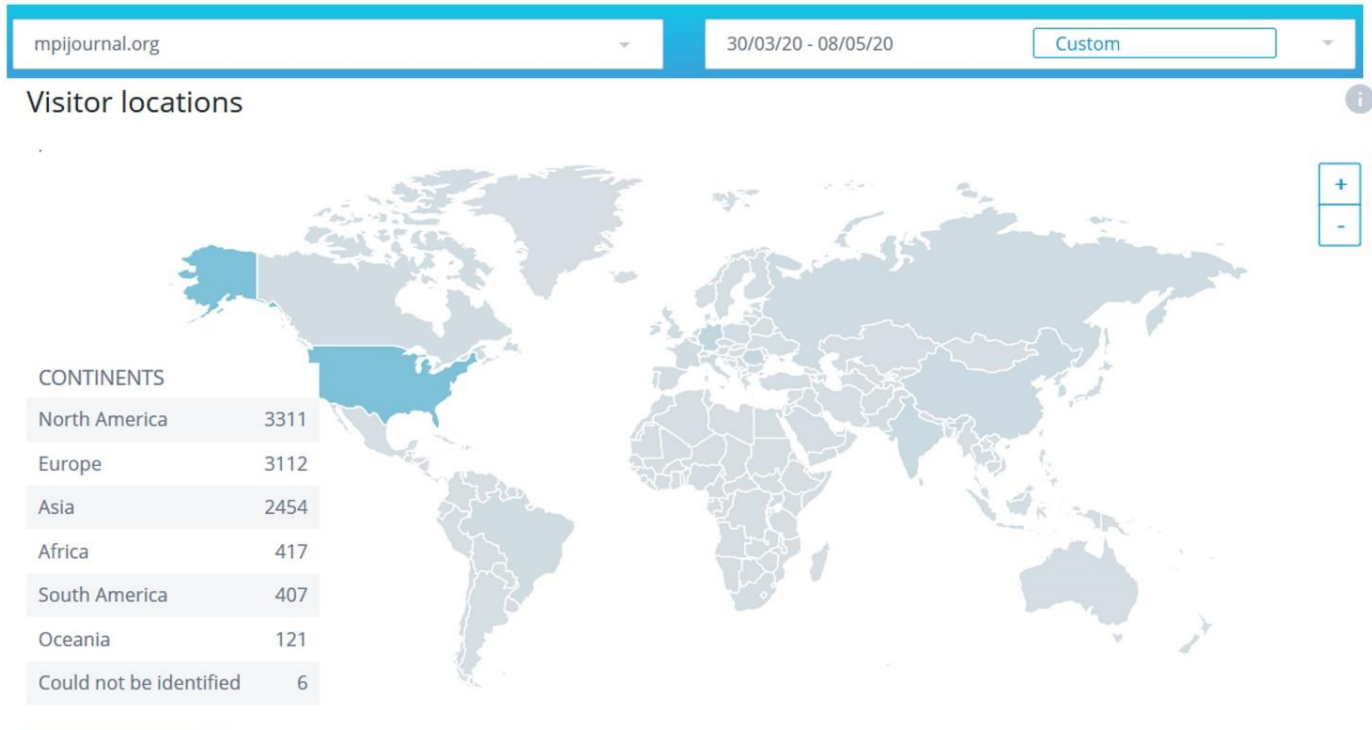
profession with information related to the ways our colleagues cope with the situation in different countries. MPI also led an initiative, including most Editors of medical physics journals, aiming to show the continuing support of these journals for the profession during the pandemic. The overall conclusion is that the journals have even increased their productivity during this period and all published topical papers on the subject. This survey was

published as a separate chapter in the recently printed CRC book Medical Physics During the COVID-19 Pandemic.

The number of readers of the MPI Journal and its History Special Issues continue to be around 6000-8000 per month in all regions covered by IOMP, showing the popularity of the Journal. This consistently high number of readers underlines the importance of the free MPI Journal aim – support to the

global professional and educational development of medical physics, plus showing its important place within the development of medicine over the years.

We would like to thank the Editorial Board and especially the Technical Editor Prof. Magdalena Stoeva, and also all authors who contributed papers during this period.



A Report on the AFOMP Monthly Webinar Series

Arun Chougule, Rajni Verma



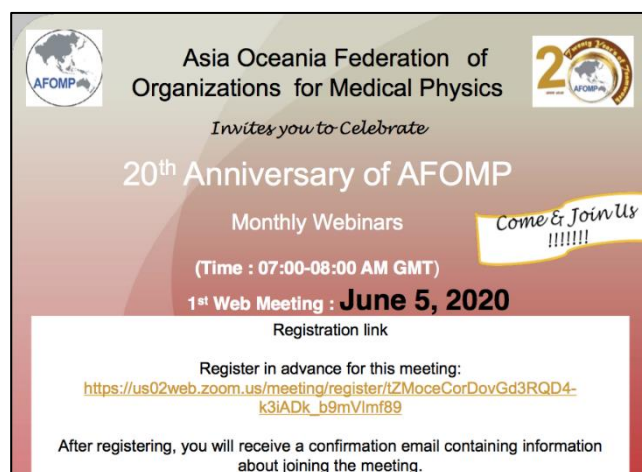
The Asia-Oceania Federation of Organizations for Medical Physics (AFOMP) started the AFOMP monthly webinar series as part of 20th anniversary celebration of AFOMP. Academic meetings always play a vital role in disseminating knowledge and discussing new avenues of any subject. This monthly webinar series had been proven a key academic program of AFOMP with enthusiastic response globally from whole medical physics community. This webinar series provided a perfect platform for academic discussions and knowledge dissemination in the difficult time of COVID-19 pandemic. Due to the unprecedented situation created by COVID-19 pandemic, it was very difficult or almost impossible to organize or attend the usual physical meetings/ conferences. The International Organization for Medical Physics (IOMP) also encouraged organizing virtual meetings. This kind of web series was unique and was the need of the hour with growing interest among participants. These

webinars became extremely popular among the young generation of medical physicists, as it is easy to participate without much of logistical arrangements. The whole idea of this webinar series was conceived in May 2020. It was planned to be organized on every first Thursday of the month as part of the year long celebration of 20th anniversary of AFOMP (May 2020-May 2021). The organizing team lead by Prof. Arun Chougule, President AFOMP was all geared up with scheduling and making necessary logistical arrangements in May 2020.



Prof. Arun Chougule made the first announcement about the AFOMP monthly webinar series during the AFOMP's International Medical Physics Week (IMPW) 2020 celebration on virtual platform. Every webinar was planned with a subject topic of wide interest. These hour-long webinars were hosted with a new speaker and moderator every month from AFOMP region. An e-webinar flyer was prepared for every month and circulated as per the schedule. These

informative e-webinar flyers included all the necessary information related to webinar such as the title of talk, details of speaker and moderator, registration guidelines to participants in a simplified approach including webinar dates, Greenwich Mean Time (GMT) and registration link. The registration was free and mandatory for participation. These e-webinar flyers were posted on AFOMP website and circulated among all the National Member Organizations (NMOs) in the AFOMP region. On successful registration by the participants, they received a registration confirmation email containing all information about joining the webinar. These webinars were organized and managed by AFOMP team. Dr. Arun Chougule, President AFOMP and Dr. Jin Xiance, Chair Education & Training Committee AFOMP, managed the scientific contents of the webinars. Dr. Chai Hong Yeong, Chair Professional Relations Committee AFOMP, looked after the certificate and CPD point management. Mrs. Rajni Verma, Website Manager AFOMP, managed communication and technical aspects. This webinar series cannot be a success story without continuous support of AFOMP Secretary General, Dr. Hasin Anupama Azhari.



The first webinar of this webinar series was launched on 5 June 2020 on a commercially available virtual platform “ZOOM” globally. Prof. Tomas Kron and Dr. Peta Lonski were speakers for the first webinar. Dr. Jin Xiance moderated this webinar. The title of the talk was ‘**Total Body Irradiation with X-rays and Electrons: Dosimetry and Techniques**’.



This webinar got overwhelming response globally and with this the series of webinars started. As a year is completed, it is proved to be a fruitful journey to academic excellence. Due to its relevance and success, every webinar from the third one is accredited with two CPD points from Australasian College of Physical Scientists and Engineers in Medicine (ACPSEM). These webinars provided a perfect virtual forum to fulfill the objective of knowledge dissemination. This has encouraged exchange of ideas and foster knowledge up gradation with special emphasis given to the needs of medical physicists of AFOMP region. The recordings of these webinars have been posted on AFOMP website, which can be accessed by all.

Many renowned academicians and medical physicists had been part of this wonderful journey as a speaker and a moderator.

Various topics of scientific and practical importance were included in the series. Many topics and talks were included to fulfill the requests of the participants. The 12th Monthly webinar held on 6th May 2021 marked the successful completion of the 20th anniversary celebrations of AFOMP.



Asia Oceania Federation of Organizations for Medical Physics
AFOMP 20th Anniversary
AFOMP Monthly Webinar Series (July- December 2021)
(Every first Thursday of the month, 07.00 – 08.00 AM GMT)

No	Date of Webinar	Speaker	Topics	Moderator
01	08 July 2021	Giorgia Loreti	The IAEA TCS71: Guidelines for the Certification of Clinically Qualified Medical Physicists	Dr. Arun Chougale
02	05 August 2021	Dr. Jianrong Dai	Technological advances in Intraoperative radiotherapy	Dr. Aik Hao Ng
03	02 September 2021	Dr. Arimura Hidetaka	Radiomics and radiogenomics with AI for Oncology	Dr. Hui-Yu Tsai,
04	07 October 2021	Dr. Tae Suk Suh	Image Guided Application in Radiation Therapy	Dr. Michael Lee
05	11 November 2021	Dr. Brad Cassels	The Augmented Role of the Medical Physicist in Radiation Emergencies	Dr. Mansoor Naqvi
06	02 December 2021	Dr. S D Sharma	Monitor Unit Calculation for Photon and Electron Beams	Nguyen Tan Chau




Asia Oceania Federation of Organizations for Medical Physics
AFOMP 20th Anniversary
AFOMP Monthly Webinar Series (January- June 2021)
(Every first Thursday of the month, 07.00 – 08.00 AM GMT)

No	Date of Webinar	Speakers	Topics	Moderators
02	07 January 2021	Dr. Dayanand S Shamurallatpam	Proton Therapy: Why and How?	Dr. Mohammad Amin Mosleh-Shirazi
03	11 February 2021	Dr. Eva Bezak	An overview of targeted beta and alpha therapies	Dr. Hajime Monzen
04	04 March 2021	Dr. Chen Shou Chui	IAEA TRS-398 "Absorbed Dose Determination in External Beam Radiotherapy"	Dr. V. Subramani
05	01 April 2021	Dr. Hossein Mozdarani	Biological paradigms affecting radiotherapy outcome.	Dr. Md Akhtaruzzaman
06	06 May 2021	Dr. Hyun-Tai Chung	Basic principles, dose planning, advantages and quality assurance of a Gamma Knife Radiosurgery	Dr. Supriyanto Ardjo Pawiro
07	03 June 2021	Dr. Yibao Zhang	Knowledge-based planning: research and practice for cancer treatment	Dr. Mary Joan

However amidst of the COVID-19 pandemic, this series proved to be a perfect mode for academic activities. This virtual platform has many advantages such as easy accessibility to all without much of logistical requirements. It is proved to be a boon to young students and physicists who mostly faces economic constraints and opportunity issues for participation in physical meetings organized

worldwide and these reasons made these virtual meetings quite appealing to students and young physicists. Because of these advantages and efficacy observed, AFOMP has decided to continue this scientific endeavor. The schedule of webinars for upcoming months is already announced and available on AFOMP website.

AFOMP executive committee was always a constant source of motivation for the whole of this academic journey of monthly webinars. The whole team



Asia Oceania Federation of Organizations for Medical Physics-
AFOMP 20th Anniversary
AFOMP Monthly Webinar Series 2020-21
(Every first Thursday of the month, 07.00 – 08.00 AM GMT)

No	Date of Webinar	Speakers	Topics	Moderators
01	5 June 2020	Prof Dr Tomas Kron & Dr Peta Lonski	Total Body Irradiation with X-rays and Electrons: Dosimetry and Techniques	Dr Jin Xiance
02	2 July 2020	Prof Dr Arun Chougale	Radiobiology of Radiotherapy - NSD to BED	AP Dr Chai Hong Yeong
03	6 August 2020	Dr Sung Yung Park	Comprehensive Proton Therapy Machine Quality Assurance: AAPM TG 224	Prof Dr Anupama Azhari
04	3 September 2020	Prof. Dr. Golam Abu Zakaria	Dosimetry of Small Photon Radiation Fields: Comparison of the IAEA TRS- 483 and the German DIN 6809-8 Protocols	Dr. Kanchan Adhikari
05	1 October 2020	Assoc. Prof. Dr. Chai Hong Yeong	Establishment of Nuclear Medicine Facility and Radiopharmaceuticals in Nuclear Medicine	Dr. J. Jayasinghthan
06	5 November 2020	Prof Dr Arun Chougale	Dose Reference Levels (DRLs)	Dr. Michale Lee
07	4 December 2020	Prof Dr D.N. Sharma	Recent Advances in Brachytherapy and Challenges	Dr. Delmar Arzabal

gratefully acknowledges the active participation, cooperation and support of the speakers, moderators, participants and all individuals involved in organization of these webinars.

To improve the professional status of medical physicists in the AFOMP region, we have to work collectively and effectively to improve knowledge and achieve international best standards. Our commitment to the profession and cooperation will take us to the achievement of the desired goals. These monthly academic webinars shall be a best forum for active discussions and constructive debates to improve ourselves academically, scientifically and professionally.

A Report on the AFOMP Monthly Webinar Series



Anupama Azhari, Arun Chougule

International Organization for Medical Physics (IOMP) has started to celebrate a week devoted to the contributions of medical physicists to healthcare as International Medical Physics Week (IMPW) from 2020. This year to celebrate the IMPW, the IOMP School organized a series of webinars during April 26-30 2021. The purpose of these webinars was popularizing the medical physics profession among professional colleagues in the clinical and non-clinical field and also among the public.

These activities also intend to promoting awareness of medical physics among physics colleagues and to let them know how their students can find a career in medical physics. On April 28, 2021 (Day-3), Asia Oceania Federation of Organizations for Medical Physics (AFOMP) organized and hosted two hour long webinar on 'Patient Radiation Protection' on the occasion of IMPW 2021.

The main objective of IMPW celebrations is to promote the organization of activities in a defined week leading to the expansion of medical physics stories around the world. The general public is unaware of the important role that medical physicists play in providing services to medical, educational, and research institutions. All regional and national medical physics organizations are prompted and encouraged to plan and implement appropriate activities taking into account the constraints due to the pandemic. The COVID 19 pandemic has been a major challenge in all sectors of our society. Regulations related to distance and social mobility has led to significant reduction in education and training activities. As a result, digital learning has greatly improved. The year 2021 is another time for new educational approaches to be tested for its efficacy and newer opportunities.

Asia Oceania Federation of Organizations for Medical Physics
IMPW 2021 AFOMP Webinar PROGRAM DETAILS

April 28th 2021, 7- 9 AM (GMT)

IMPW 2021
April 26-30, 2021

Welcome Speech

Panel of Speakers

Moderator

Register in advance for this meeting:
<https://bdren.zoom.us/j/750123456789>



Asia Oceania Federation of Organizations
for Medical Physics
International Medical Physics Week 2021
Virtual Webinar
April 28th 2020, 7– 9 AM (GMT)

Invites you to Celebrate

For a second consecutive year IOMP celebrates the International Medical Physics Week by series of webinars dedicated to various professional, educational and organizational aspects of Medical Physics. AFOMP has decided to organize a webinar program with 4 speakers.

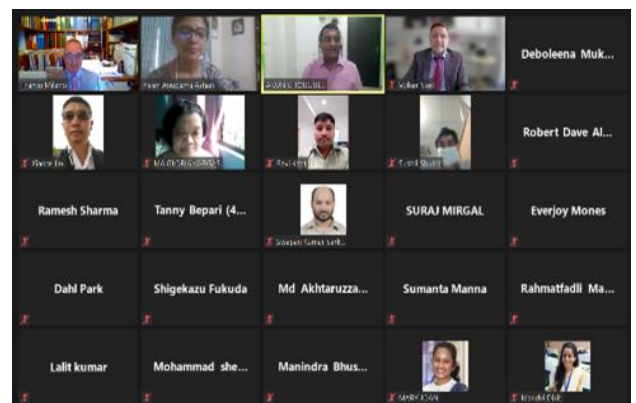
To Register in advance for this meeting:
<https://bdren.zoom.us/join/register/u5EIceChqTksHNSpYPsjr5rbYolqsDCwblIQ>

Time	Topics	Speakers
7.00 AM – 7.05 AM (GMT)	Inaugural Speech	Prof. Hasin Anupama Azhari
7.05 AM – 7.15 AM (GMT)	Welcome Speech	Prof. Arun Chougule
7.15 AM – 7.30 AM (GMT)	Speech on IMPW	Prof. Madan Rehani
7.30 AM – 7.50 AM (GMT)	Medical Physicists in the Covid-19 Pandemic	Prof. Xiance Jin
7.50 AM – 8.10 AM (GMT)	Challenges Faces by Medical Physicists	Dipl.-Ing. Volker Steil
8.10 AM - 8.30 AM (GMT)	IMPW Celebration: To raise awareness or To strengthen the community of medical physics??	Prof. Franco Milano
8.30 AM – 8.50 AM (GMT)	Medical Physics Education, Accreditation and Certification	Prof. Arun Chougule
8.50 AM – 9.00 AM (GMT)	Q & A Session	

April 28th 2020, 7– 9 am (GMT)

The webinars of IMPW 2021 were a great success despite the time zone differences. The AFOMP webinar on 28th April, the 3rd day of IMPW was also not an exception. The 3 speakers along with President and Secretary General AFOMP, Prof Arun Chougule and Prof Hasin Anupama Azhari and the IOMP President Prof Madan Rehani lead the deliberations on various aspects of medical physics practice, current rationales and varying challenges across the world. To encourage efficient dissemination of insights and active participation a 10 minutes question-answer session on the topics were scheduled at the end of the programme. All IMPW webinars were free to register and attend. The only prerequisites were thirst for knowledge and a broader understanding of the topic.

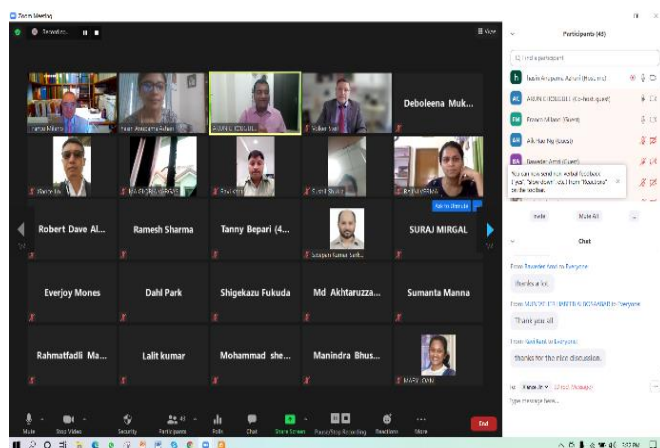
The theme of the AFOMP webinar to celebrate IMPW was ‘Patient Radiation Protection’. The program was started with the Inaugural speech by Prof Dr Hasin Anupama Azhari, General Secretary, AFOMP followed by a welcome address by Prof. Arun Chougule, President AFOMP. Prof Madan Rehani, President IOMP conveyed the greetings and IMPW message through a pre-recorded video. He couldn’t join live due the time difference. The scientific programme of this webinar consisted of four talks by experts from across the world. A very relevant topic of the current times ‘Medical Physicists in the COVID 19 Pandemic’ was deliberated and discussed by Prof Dr Xiance Jin, Chief Medical Physicist and Vice Director, Radiation and Medical Oncology Department, The First Affiliated Hospital of Wenzhou Medical University, China. He presented the AFOMP guidelines on medical physics practice during COVID 19 pandemic through a video message. Dipl.-Ing. Volker Steil, Authorized Representative for Radiation Protection and Head of Department Medical Physics and Radiation Protection, University Medical Center Mannheim, Germany gave his lecture on ‘Challenges Faced by Medical Physicists’. He presented the challenges medical physicists’ faces in education and in hospitals comprehensively. The next lecture on



'IMPW Celebration: 'To raise awareness or to strengthen the community of medical physics??' by Prof Franco Milano, Senior Physicist, Florence University Hospital; Medical Physics Professor, University of Catania; Medical Physics Professor, University of Florence elaborated in depth on the relevance and necessity of IMPW celebrations in the current clinical atmosphere in hospitals and universities. The last talk of this webinar 'Medical Physics Education, Accreditation and Certification' by Prof Arun Chougule, President, AFOMP was an eye opener and need of the hour especially for the young thriving medical physicists. The question and answer session where participants could ask their questions to the speakers were very informative and helpful for the participants. Most of the queries and doubts from the delegates were satisfactorily addressed by each of the speakers.

This was indeed a morale boosting experience for everyone who attended and an assurance to young medical physicists that there is definitely light at the end of the tunnel.

AFOMP was very happy to support IOMP as its regional organization in this initiative and organizing this kind of webinar with renowned speakers and moderators. The AFOMP webinar was very much informative and effective in disseminating knowledge to the participants as well as a valuable attempt fulfilling the objectives of IMPW celebrations to promote the organization of activities leading to the expansion of medical physics stories globally. AFOMP urges all its NMO's to do such activities which will act as an appeal to the regional governments to make them understand the importance of medical physicists in hospitals, especially in cancer treatment and care. Wish you all a very happy and fruitful international medical physics week and all the success in all professional endeavors.



Report of International Conference on Radiation in Health Care

On the occasion of International Medical Physics Week

Arun Chougule, Mary Joan

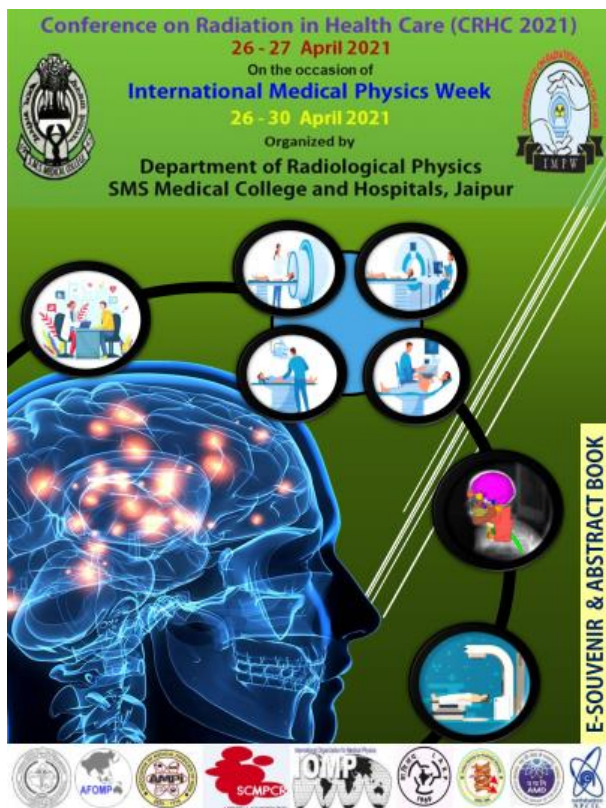
The department of Radiological Physics, SMS Medical College and Hospitals, Jaipur hosted two days international Conference on Radiation in Health Care CRHC 2021 virtually on 26th and 27th April 2021 on the occasion of the International Medical Physics Week (IMPW) celebrated from 26th to 30th April 2021.



Contribution of Medical Physics in healthcare is multi-dimensional and it has improved the healthcare tremendously. The recent advancements in Medical Physics may it be in Radio diagnosis, Radiotherapy, Nuclear Medicine and various fields specially using ionizing radiation has made monumental sprints. To bring over it and recognize the contribution of Medical Physics to healthcare, International

Organization for Medical Physics (IOMP) has started to celebrate 7th November, the birthday of Madam Marie Curie as International Day of Medical Physics (IDMP) since 2013. However, it was thought that a week devoted to the contributions of medical physicists to healthcare to be celebrated as International Medical Physics Week. For the first time, it was celebrated from 11th -15th May 2020, where various academic and teaching institutes showcased the contributions of medical physicists to healthcare globally.

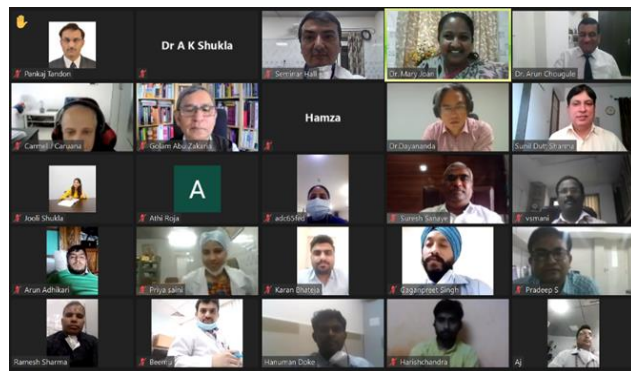
IMPW was launched with the purpose to motivate organization of activities in a defined week that result in the promotion of the subject of medical physics globally, increasing the visibility of the profession and outreach to fellow professionals and general public. The theme of this year's celebrations was 'Communicating the Role of Medical Physicists to the Public'. The Department of Radiological Physics, SMS Medical College and Hospitals, Jaipur, India celebrated IMPW with a two days international scientific programme Conference on Radiation in Health Care. The rapidly evolving applications of physics in medicine and the current pandemic all over the world demands new set of skills as well as outlooks to meet the challenges efficiently and successfully. This virtual conference offered a forum for sharing invaluable experiences for improving the practice of Medical Physics and an opportunity to listen to a number of great people holding and practicing high ideas in life as well as profession.



The scientific programme included talks and teaching sessions by eminent speakers in the field of medical physics. On 26th April 2021, the first day of the conference, the scientific programme started with ‘Saraswati Vandana’ a prayer to the goddess of knowledge as per the Indian tradition. An introduction to the purpose and objectives of CRHC 2021, IMPW celebrations and a congenial welcome to all speakers and participants were proposed by the Organizing Secretary Dr Mary Joan. A prerecorded video message on the IMPW celebration from the President IOMP, Prof Madan Rehani and a live message from the President AFOMP, Prof Arun Chougule were conveyed. An e-Souvenir and Abstract Book of the conference was released thereafter. Greetings and best wishes for CRHC 2021 from Prof James Goh, President IUPESM, Prof Madan Rehani President IOMP, Prof Raja Babu Panwar, Hon Vice Chancellor RUHS, Jaipur, Prof Sudhir Bhandari, Principal and Controller SMS Medical College and Hospitals Jaipur, messages from Prof Arun Chougule, President AFOMP and the Organizing Chairman, Dr Mary Joan, Organizing Secretary and abstracts of all

the invited talks, special lectures and addresses, poster and oral presentations, endorsements and advertisements from knowledge and trade partners, a brief narration about the Pink City, Jaipur comprised the e-Souvenir.

A keynote address by Shri N K Pushpakar, Site Director, NPCIL Rawatbhata Rajasthan Site, Kota followed the inaugural session. He has described about various applications of ionizing radiation in healthcare, regulatory stature, contributions of Rawatbhata site to the production and supply of different radioactive sources and other services provided by the NPCIL. Prof Arun Chougule wrapped the session by further elaborating on the other services supported by the NPCIL like CBRN emergency preparedness and response, contribution in the power requirement of the country and other services under the corporate social responsibilities.



There were four more scientific sessions on the first day. Advancements in the use of radiation in health care, Advanced therapeutic radiological procedures, Radiation protection and dosimetry in radiotherapy,



radiology and nuclear medicine were the next three sessions where Prof Madan Rehani, USA, Prof G A Zakaria, Germany, Prof Carmel Caruana, Malta, Prof S D Sharma, Mumbai, Mr Karan Bhateja PTW, Dr Chai Hong Yeong, Malaysia, Dr Dayananda Sharma, Chennai, Dr K Ganapathy, Chennai, Dr A K Shukla, Lucknow, Dr Pankaj Tandon, Mumbai, Dr J K Bhagat, Jaipur, Dr Subhash Kheruka, Lucknow, Dr Xiance Jin, China deliberated on topics varying from medical physics professional roles, challenges, dosimetry, radiation protection, artificial intelligence, diagnostic radiology, nuclear medicine and radiotherapy including proton therapy.

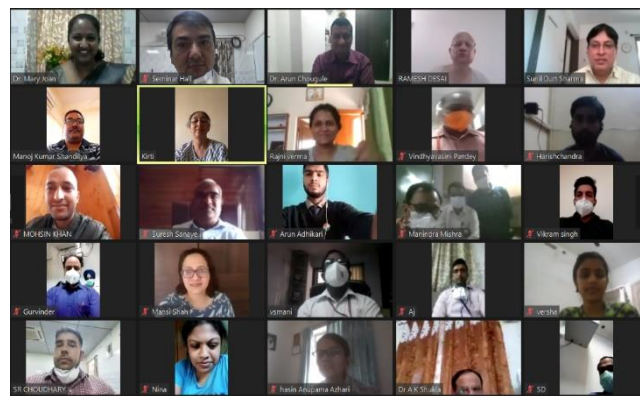
A best poster session was conducted thereafter to encourage and promote the young and early career medical physicists and scientists. 12 young investigators from Srinagar (a northern most state capital city) to Thiruvananthapuram (a southernmost state capital city) and the neighboring country Bangladesh presented their research work. Shriram A Rajurkar from Mumbai and Gokul Raj from Bikaner won the first and second best poster awards respectively.

A 'Saraswati Vandana' to evoke the presence of the Goddess of knowledge marked the beginning of the second day scientific programme also followed by a recapitulation of first day programme by Prof Arun Chougule, Organizing Chairman.

A special highlight of the second day scientific programme was 'meet the expert' session. Dr S Murali from BARC Mumbai spoke about 'Radiation Safety, Surveillance, Prevention, Preparedness and

Response to Exigency' with emphasis on Radiation Technology / Nuclear Medicine usage'. Following meet the expert lecture was a plenary talk by Prof Madan Rehani on the theme of the conference which is also the theme of the IMPW this year. Dr MK Sandilya of the Atomic Mineral Directorate, Jaipur gave a special address on 'Management of Radiological emergencies in public domain and Role of Emergency Response Centers'. A very interesting and enlightening discussion followed, and many queries regarding regulatory and professional affairs were answered by AERB representatives present during the discussions, Prof SD Sharma, President, AMPI and Prof Arun Chougule, President AFOMP and the organizing chairman.

The next session Medical Physics in Health Care introduced by Prof Chougule and Prof Hasin Anupama Azhari, Bangladesh and Dr V Subramani, New Delhi elaborated on the varying multidimensional roles of medical physicists in the multidisciplinary radiological specialties in the healthcare system. This session was also marked by a very active and informative discussion following the talks. Not only the speakers but also the other experts present took part actively in answering the queries from the delegates.



A very thrilling best oral paper session where 12 delegates presented their research work followed. The question and answer session following the presentation was also enticing and invigorating. The delegates were opportune enough to listen to the enlightening explanations provided by the expert

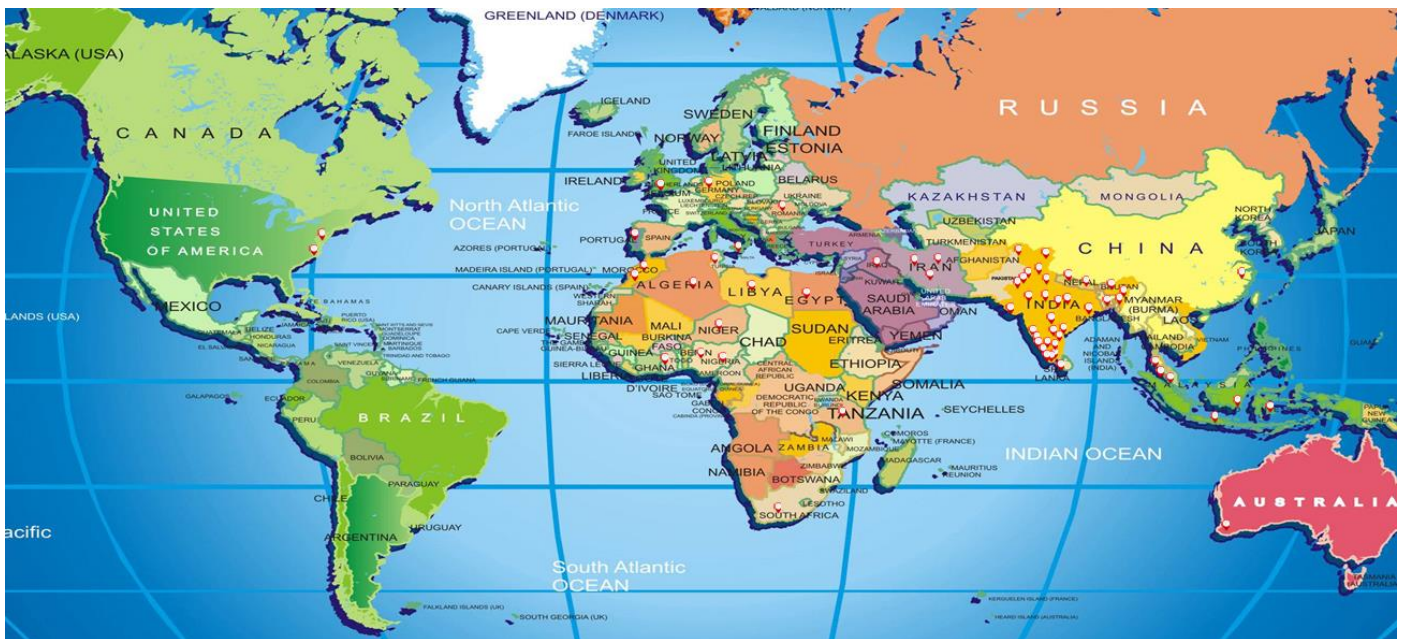
faculty present during the discussion. Sarin B from Thiruvananthapuram and Dr VP Pandey from Bhopal won the first and second best oral awards respectively.



The last scientific session discussed the current issues and way forward. The impact of Covid-19 on medical physics practices in Africa was presented by Prof Christoph Trauernicht, S Africa who is also the recently elected President of the Federation of African Medical Physics Organizations (FAMPO). Nurturing a global initiative in medical physics leadership and mentoring by Dr Aik Hao Ng, Malaysia was also very encouraging especially to young and early career medical physicists.

Main achievements of the International Union for Physical and Engineering Sciences in Medicine (IUPESM) for the profession – a summary of 40 years progress was presented in a nutshell by Prof. Slavik Tabakov, Vice-President IUPESM. Many professional issues and probable solutions were discussed and the queries from the delegates were answered. It was a very nurturing experience to listen to stalwarts in Medical Physics and it indeed was confidence boosting to the younger generation of medical physicists.

The various social and awareness activities planned to commemorate the role of Physics in Medicine has turned into virtual activities only because of the pandemic. We had a keynote address, plenary talk, special address and a meet the expert session in addition to the 18 invited talks and 12 proffered oral and poster presentations each. Delegates from about 28 countries across the world, mostly of medical physics students and early career radiation professionals took part in this virtual conference. An expert line of speakers from around the world were also gathered on the virtual platform to share their views and experience on diverse professional issues and their resolution.



It was a unique platform for all radiation professionals from different domains of radiation physics, radiation biology, radiation dosimetry and clinical medical applications to get together, know each other and appreciate and acknowledge the contributions of each domain. The organizers would like to take this opportunity to sincerely thank each and every one who spared the valuable time to actively participate in this conference enhancing the scientific exactitude of each other. We are confident that CRHC 2021 will prove to be a milestone for the medical physics community and help us all in developing ourselves as indispensable healthcare professionals.

We have been very efficiently planning the radiation treatment for cancer patients, corroborating quality assurance of equipment and procedural protocols, researching on new diagnostic and treatment modalities, ensuring radiation protection and safety of patients and personnel in various streams of healthcare. It is the need of the hour to raise the professional profile of medical physics and we have tried to bring light to the current issues and how to resolve them.

The organizers highly appreciate the active participation, cooperation and endorsement of the organizations IOMP, AFOMP, AMPI and SCMPCR along with RUHS, NPCIL Kota, AMD Jaipur, IARP and ISRB for their support in organizing this conference. A word of thanks to our trade partners, without whom this conference couldn't be arranged as beautiful as it was. As discussed and disseminated in the CRHC 2021, the first two days of the IMPW celebrations, a single day IDMP celebrations or a week long IMPW celebrations might not completely serve the purpose of uplifting the professional status of medical physicists in healthcare. We should equip and improve ourselves to meet the challenges efficiently. There are great times ahead of us; Country needs our service. Each one of us is needed - in our country, community and university - to ensure decisive, visible and measurable actions are taken for the medical physics profession. As we celebrated the IMPW 2021 by holding this international Conference on Radiation in Health Care, CRHC 2021, the spirit of this conference will make each and every one of us to be a leader not only within our own spheres of influence but also in the associated multidisciplinary specialties and commit to take pragmatic action to accelerate professional and personal development. Wishing everyone a fruitful IMPW 2021!



Department of Radiological Physics
SMS Medical College and Hospitals Jaipur

Final Report on the: 2021 Virtual MEFOMP Medical Physics Conference

Middle East Federation of Organizations of Medical Physics (MEFOMP) in cooperation with the International Atomic Energy Agency (IAEA) organized the "2021 Virtual MEFOMP Medical Physics Conference" that took place between 5 and 7 April 2021.

The conference aimed to provide professionals and scientists with an in-depth view of future directions, innovations and techniques in the field, overview on latest advances in medical imaging and radiation therapy, artificial intelligence in medical imaging, updates on radionuclide therapy and dosimetry and to discuss lessons learned from the COVID-19 pandemic. Twenty international leading experts in the field and six speakers from MEFOMP region participated in the conference.

Endorsements and Accreditations:

The conference was endorsed by leading international medical physics organizations, namely: the International Organization for Medical Physics (IOMP), Asia-Oceania Federation of Organizations for Medical Physics (AFOMP), European Federation of Organizations for Medical Physics (EFOMP) and Federation of African Medical Physics Organizations (FAMPO). In addition, the conference was accredited with continuous medical education credits for 15 IOMP CPD points & 16 CAMPEP MPCEC.

The conference organizing committee was honored to invite experts and pioneers in various medical physics related fields to deliver lectures virtually, through live or recorded presentations and to participate in the live discussions and MCQs.

At the end of each lecture, Multiple Choice Questions (MCQs) were presented for the purpose of: (1) to make sure that the participants attended the sessions; (2) for active interaction between participants and the presenter; (3) for the participants to obtain credits from attending the lecture.

Review sessions for recently published medical physics books by their authors took place during the conference.

Registration and Attendance:

The conference had an outstanding registration record with more than 2900 participants while those who attended were over 1900 from 81 countries. The participants who fulfilled the accreditation criteria (answered 50% of the MCQ questions appeared at the end of each lecture) and got the certificate were about 500 participants from 48 countries. This indicates MEFOMP great success in bringing together medical physics and health professionals from the region and across the globe.



Fig. 1. Group photo taken at the virtual conference

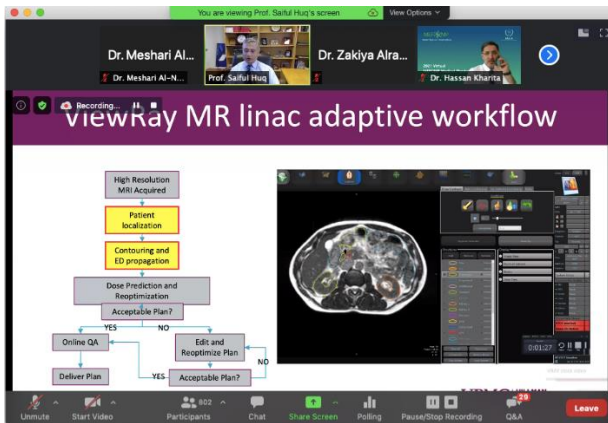


Fig. 2. One of the presentations during the virtual conference

Main Topics:

The conference highlighted topics in different fields of medical physics including Medical Imaging, Radiation Protection, and Therapy in addition to the current and future directions in this field including Artificial Intelligence, particle therapy, and others.

As we are still at the era of our fight against COVID, the conference further highlighted topics related to the pandemic and its impact in medical sector especially the management and roles of Medical Physics in this crisis.

Sponsors:

This conference was sponsored by the following organizations:

- **The platinum sponsors:**
 - Kuwait Foundation for the Advancement of Sciences (KFAS) - Kuwait
 - Hamad Medical Corporation (HMC) - Qatar
- **The gold sponsors**
 - Sedeer Medical
 - Varian
 - Ali Bin Ali Medical & Siemens Healthineers
- **The silver sponsors:**
 - Al Zahrawi Medical
 - GE Healthcare
 - Barzan Medical Supplies
 - IBA – Ion Beam Applications S.A.

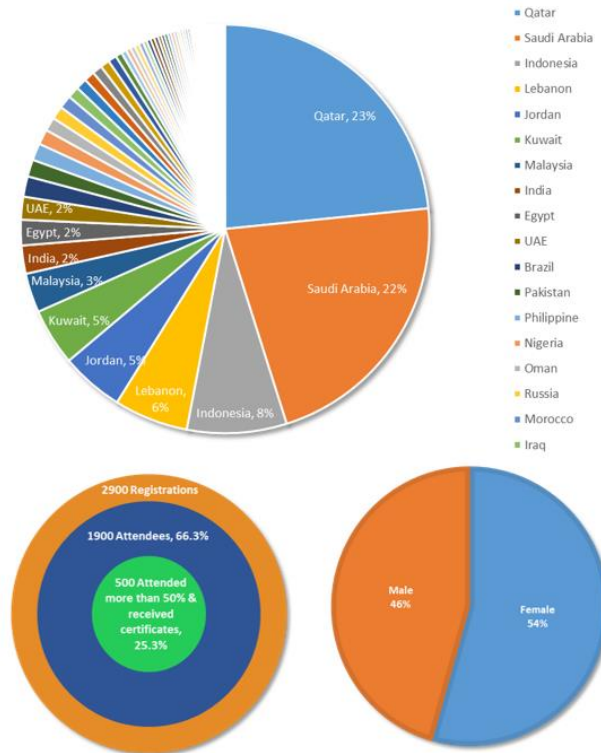


Fig. 3. The virtual conference participants

Conference Certificates:

For authentication purposes all certificates issued in relation to this conference are provided with QR code link to a webpage on www.mefomp.com that contains all lists of:

1. Members of Organizing and Program Committee awarded Appreciation Certificates
2. Names of Speakers awarded Appreciation Certificates
3. Names of sponsor awarded Certificate of appreciation for Platinum, Gold and Silver Sponsors
4. Names of Session Chairs awarded Appreciation Certificates
5. Names Participants who were awarded Participation Certificate

Website and Platform:

A special dedicated website was designed and developed to manage the conference <https://mefomp-conference.com/> and provide all the needed information, about the conference and its committees, program, speakers, partners, sponsors, registration, etc. Zoom Webinar was used as the virtual platform to host this important event and manage all meetings, recording of lectures, managing MCQs, Q&A, etc.

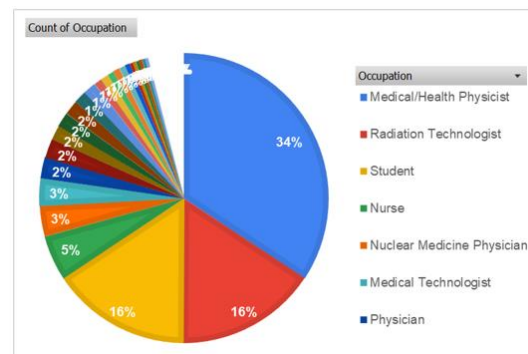
The conference poster (Appendix 1), program (Appendix 2), sponsors and endorsers (Appendix 3), website (Appendix 4) and Sample certificate (Appendix 5). All recording for the conference presentations are available on MEFOMP website: www.mefomp.com.

Analysis of the survey results

A survey was sent to the participants of the conference and below are the analysis of the results of the feedback from of about 600 participants who answered the questions of the survey:

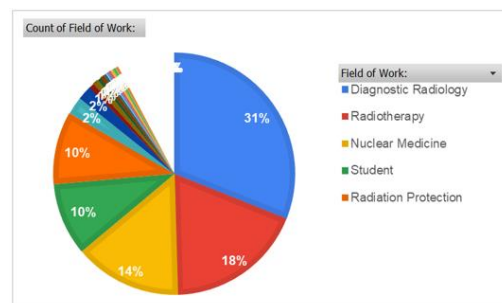
1. What is your occupation?

The largest five groups of participants were medical/health physicists, radiation technologists, students, nurses, Nuclear Medicine physicians, medical technologists and physicians with 34%, 16%, 16%, 5%, 3%, 3% and 2%, respectively.



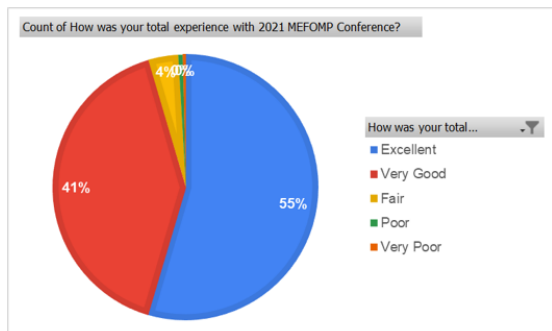
2. What is your field of work?

The largest five groups of participants were working in diagnostic radiology, Radiotherapy, Nuclear Medicine, Students and Radiation Protection with 31%, 18%, 14%, 10% and 10%, respectively.



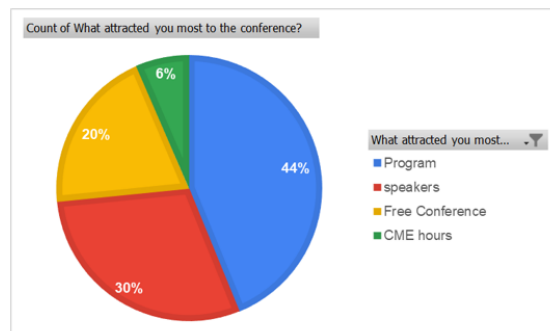
3. How was your total experience with 2021 MEFOMP Conference?

“Excellent” or “Very Good” accounted for 96% of the responses.



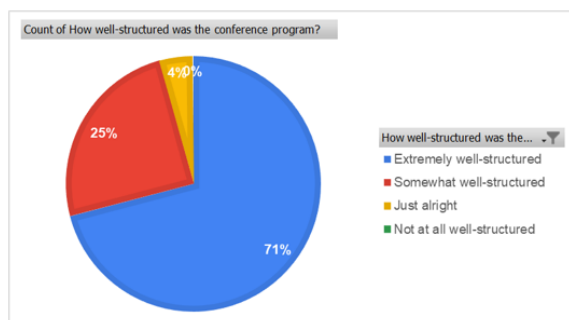
6. What attracted you most to the conference?

44% said they were attracted to the conference because of the program, 30% for the speakers and 20% for the free conference whereas only 6% for the CME or CPD points.



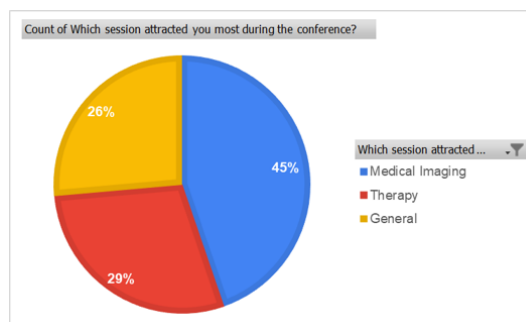
4. How well-structured was the conference program?

Over 96% answered “extremely well- structured” or “somewhat well-structured”.



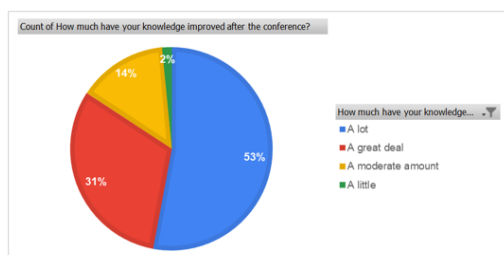
7. Which session attracted you most during the conference?

The answers were 45% for medical imaging, 29% for therapy and 26% for the general sessions.



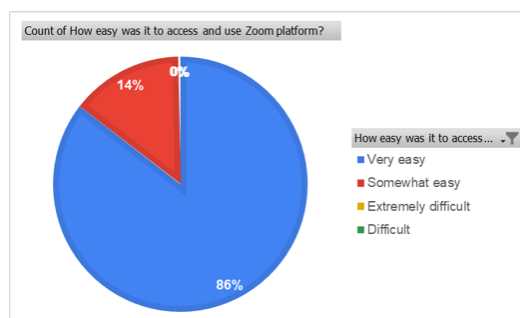
5. How much have your knowledge improved after the conference?

Overwhelming positive response over 84% replied “A lot” or “A great deal”.



8. How easy was it to access and use Zoom platform?

All responders said to access the Zoom was “very easy” or “somewhat easy”.



Appendix 1. The virtual conference poster





MEFOMP in cooperation with the IAEA organize the **2021 Virtual MEFOMP Medical Physics Conference**

📅 5 - 7 April, 2021 ⌚ 10:00 AM (Kuwait Time / GMT+3) 📄 Free registration

Organizing Committee & Local Speakers

					
Meshari Al-Nuaimi, PhD MEFOMP Vice President	Abdalla Al-Haj, PhD MEFOMP Past President	Refaat Al-Mazrou, MSc MEFOMP EST Committee Chair	Huda Al-Naemi, PhD MEFOMP President	Rabih Hammoud, PhD MEFOMP Treasurer	M. Hassan Kharita, PhD MEFOMP Secretary General

Main Topics

- Diagnostic Medical Imaging
- Nuclear Medicine and PET Imaging
- Artificial Intelligence in Medical Imaging
- Radiation Therapy
- Radiation Detection
- Radiation Protection
- Radionuclide Therapy
- Dosimetry & Quality Assurance

Accreditation




15 CPD Points 16 MPCEC

International Speakers

				
Ishmail Badr, PhD London, UK	Dale Bailey, PhD Sydney, Australia	Sabine Bernard, MSc Brussels, Belgium	David Bradley, PhD London, UK	Arun Chougule, PhD AFOMP President
				
John Damilakis, PhD ICOMP Vice President	Yaser Gholami, PhD Sydney, Australia	Antonis Kalemis, PhD Erlangen, Germany	Tomas Kron, PhD Melbourne, Australia	Nuriye O. Kucuk, MD Ankara, Turkey
				
Ms. Gorgina Loreti IAEA	Osama Mawlawi, PhD Houston, USA	Daniel A. Mazal, PhD Madrid, Spain	Cem Onal, PhD Adana, Turkey	M. Saiful Huq, PhD AAPM Chair of the Board
				
Mr. S. Somanesan Singapore	Lucie Sukupova, PhD EFOMP Member	Filip Vanhavere, PhD Mol, Belgium	Jenia Vassileva, PhD IAEA	Kathy Willowson, PhD Sydney, Australia





www.mefomp-conference.com


Appendix 2. The virtual conference program



Day 1: Monday 5th April, 2021

Session	Time (GMT +3)	Speaker	Title of Presentation
Session 1: General	Session Chair: Dr. Jamila Alswaidi -- Emirates Medical Physics Society		
	10:00 - 10:05	Dr. Meshari Al-Nuaimi	Opening & Welcoming Notes
	10:05 - 10:30	Dr. Huda Al-Naemi	Medical Physics in the Middle East: Current Status
	10:30 - 11:00	Prof. David Bradley	Current and future direction of Radiation Physics in Medicine
	11:00 - 11:30	Ms. Giorgia Loreti	IAEA Support to the Medical Physics Profession
	11:30 - 11:50		Questions and Answers / Break
10:00 - 12:00	11:50 - 12:00	Prof. Carmel Caruana	Book Presentation: Leadership and Challenges in Medical Physics: A Strategic and Robust Approach
	Session Chair: Dr. Salem Abu Musleh -- Palestine Medical Physics Society		
	12:00 - 12:30	Dr. Dale Bailey	RetroSPECT: Gallium-67 as a Theranostic Imaging Agent
	12:30 - 13:00	Prof. Osama Mawlawi	Recent Advances in PET/CT and PET/MR Designs
	13:00 - 13:30	Mr. Refaat AlMazrou	NEMA Acceptance Testing Procedures of PET Scanners
13:30 - 14:00		Questions and Answers / Break	
Session 3: Therapy	Session Chair: Dr. Zakiya Alrahbi -- Oman Medical Physics Society		
	14:00 - 14:30	Prof. Saiful Huq	Novel Radiotherapy Technologies
	14:30 - 15:00	Dr. Tomas Kron	Dose Calculations in Radiotherapy
	15:00 - 15:30	Dr. Rabih Hammoud	Recent Advances in SGRT
	15:30 - 16:00	Prof. Cem Onal	MRI-Guided Radiotherapy
	16:00 - 16:30	Prof. David Bradley	The Development of High Resolution, Carbon and Glass Dosimetry Systems for Use in Radiotherapy Regimes
	16:30 - 16:40		Questions and Answers and Closing of the Day

Day 2: Tuesday 6th April, 2021

Session	Time (GMT +3)	Speaker	Title of Presentation
Session 1: General	Session Chair: Dr. Ahmed Subahi -- Saudi Medical Physics Society		
	10:00 - 10:30	Dr. Filip Vanhavere	How to Run Effective Technical Services During COVID-19 Pandemic
	10:30 - 11:00	Dr. Meshari Al-Nuaimi	Radiation Protection and Dosimetry of Eye Lens
	11:00 - 11:30	Dr. Jenia Vassileva	Radiation Protection of Patients: Current Challenges and Actions
	11:30 - 11:50		Questions and Answers / Break
10:00 - 12:00	11:50 - 12:00	Mr. Refaat Al-Mazrou	Book Presentation: Quality Control Procedures of the Gamma Camera, SPECT and SPECT/CT
	Session Chair: Dr. Khabbab Almohammed -- Yemen Medical physics society		
	12:00 - 12:30	Dr. Tomas Kron	Size Matters: Radiotherapy for Paediatric and Bariatric Patients
	12:30 - 13:00	Prof. Kathy Willowson	Towards Personalized Dosimetry in Liver SIRT
12:00 - 14:00	13:00 - 13:30	Dr. Daniel A. Mazal	Latest Advancement in Proton Therapy
	13:30 - 14:00		Questions and Answers / Break
	Session Chair: Mr. Nabil Iqellan -- Jordan Medical Physics Society		
14:00 - 16:40	14:00 - 14:30	Dr. Abdullah Al-Haj	Establishments of Diagnostic Reference Levels in the Middle East
	14:30 - 15:00	Prof. John Damilakis	Artificial Intelligence in Medical Imaging: Challenges and Opportunities
	15:00 - 15:30	Dr. Lucie Sukupova	Angiographic and Fluoroscopic Systems-QC Protocol
	15:30 - 16:00	Mr. Somanesan	Radiation Safety in Radioembolization with Y90 for Hepatic Carcinoma and Use of Y-90 PET
	16:00 - 16:30	Prof. Nuriye Kucuk	PETMR in Clinical Practice
16:30 - 16:40		Questions and Answers and Closing of the Day	

Day 3: Wednesday 7th April, 2021

Session	Time (GMT +3)	Speaker	Title of Presentation
Session 1: General	Session Chair: Dr. Christoph Trauernicht -- Federation of African Medical Physics Organizations (FAMPPO)		
	10:00 - 10:30	Dr. Hassan Kharita	Contribution of Medical Physicists During COVID-19 in the Middle East
	10:30 - 11:00	Mr. Somanesan	Global and Local Impact of COVID-19 on Nuclear Medicine & Radiology Departments - A Local Hospital Response
	11:00 - 11:30	Dr. Filip Vanhavere	New Developments in Personal Dosimetry
	11:30 - 11:50		Questions and Answers / Break
	11:50 - 12:00	Dr. Hassan Kharita	Book Presentation: Quality Control procedures for Diagnostic X-Ray Equipment
Session 2: Medical Imaging	Session Chair: Dr. Nabaa Najj -- Iraq Medical Physics Society		
	12:00 - 12:30	Dr. Ishmail Baqr	Digital Breast Tomosynthesis including Synthetic 2D Imaging
	12:30 - 13:00	Dr. Yaser Gholami	Update on Radiobiology of Rationuclides
	13:00 - 13:30	Prof. John Damilakis	Precise CT Dosimetry in Diagnosis and Radiotherapy: Why it Matters?
13:30 - 14:00		Questions and Answers / Break	
Session 3: Therapy	Session Chair: Dr. Zeina Kattar -- Lebanon Medical Physics Society		
	14:00 - 14:30	Dr. Kathy Willowson	Updates on Radionuclide Therapy and Dosimetry
	14:30 - 15:15	Prof. Saiful Huq	Small Field Dosimetry: An Overview of the Recommendations of IAEA-AAAPM
	15:15 - 15:45	Prof. Arun Chougule	Radiobiology from Radium to Particle Therapy
	15:45 - 16:15	Ms. Sabine Bernard	Ethos Therapy, an Adaptive Intelligence Solution
	16:15 - 16:45	Dr. Antonis Kalemis	Latest Developments in Quantitative SPECT/CT
	16:45 - 16:55		Questions and Answers
16:55 - 17:05	Dr. Meshari Al-Nuaimi	Conference Closing Remarks	

Appendix 3. The virtual conference sponsors and endorsers (partners)

SPONSORED BY

Platinum	 SPONSORED BY KFAS مؤسسة الكويت للتقدم العلمي Kuwait Foundation for the Advancement of Sciences	 مؤسسة حمد الطبية Hamad Medical Corporation HEALTH · EDUCATION · RESEARCH صحة · تعليم · بحوث		
Gold	 علي بن علي الطبية	 Sedeer Medical سدير		
Silver	 بزران للتوريدات الطبية Barzan Medical Supplies			

ENDORSED BY

 International Organization for Medical Physics	 20th Anniversary AFOMP	 EFOMP	
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Appendix 4. The virtual conference website <https://mefomp-conference.com/>



Fig. 8 2021 MEFOMP Virtual Conference Certificates



Calendar of Events

Swiss Congress of Radiology - SCR'21

When Saturday, Jun 26, 2021

Where Online

Description

The **SGR-SSR Official Training and Continuing Education Course** will be held online on Saturday, June 26, 2021.

Following, will be a **SCR'21 Online Edition – Webinar series**, taking place on some Thursday evenings between July and December, with different topics every time.

AAPM 63rd Annual Meeting & Exhibition - Virtual

When Jul 25 – 29, 2021

ICRP-ERPW Radiation Protection Meetings -- Paris

When Oct 10 – 12, 2021

Where Paris, France (map)

4th International Symposium on the System of Radiological Protection of ICRP and the 2nd European Radiation Protection Research Week of the European research platforms [MELODI (low dose effects and risks), EURADOS (dosimetry), NERIS (emergency and recovery preparedness), ALLIANCE (radioecology) and EURAMED (medical radiation protection)].

<http://www.icrp-erpw2017.com/>

EANM'21 – 34th Annual Congress of the European Association of Nuclear Medicine

When Oct 20 – 23, 2021

Where Virtual Meeting (map)

Description

Website: eanm21.eanm.org

2021 ASTRO Annual Meeting

When Oct 24 – 27, 2021

Where Chicago, IL (map)

BIR's Annual Congress 2021

When Nov 4 – 5, 2021

Where London, UK (map)

Description

https://birorgukportal.force.com/CPBase__event_detail?id=a173Y00000Fokp1QAB

2021 RSNA Annual Meeting

When Nov 28 – Dec 2, 2021