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Newsletter

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President: **Dr. C.J. Trauernicht** | Editors: **Dr. T.A. Ige; Prof. S. Inyang; Dr. F. Hasford; Dr. S. Inkoom**

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FAMPO Secretariat:

School of Nuclear and Allied Sciences,
University of Ghana – Atomic,
| Ghana Atomic Energy Commission |
Accra, Ghana.

Phone: +233 244 945 805

Email: sg.fampo@yahoo.com

The President's Corner

Keeping with Small Consistent Efforts

Chris Trauernicht (South Africa)

Email: cjt@sun.ac.za

The International Labour Organization considers medical physics to be an integral part of the health workforce; yet, in many African countries, medical physicists do not require registration with a health professions council and are not adequately recognized as health care professionals.

FAMPO hopes to register its first medical physicists this year, to help medical physicists achieve professional recognition in countries where this is not the case. However, every effort must consistently be made by the local medical physicists in each country to further the profession. For example, medical physicists play an important role when offering guidance when high-cost equipment is purchased. Too often, decision makers are not aware of medical physicists and take unwise equipment decisions, resulting in healthcare budgets not being used optimally. It is therefore crucial that medical physicists educate the funders and work closely with related professions to achieve the maximum benefit from functioning equipment with adequate staffing. Another example where medical physicists can play an important role is in the regulatory environment, to ensure the safe, effective and efficient use of radiation in healthcare. A third example could be the formation of a national society, which in turn may offer more leverage at a health professions council to further the process of medical physics recognition. Even in countries where registration seems a long way away, medical physicists can work on their professional skill set, their communication skills, and build their relationships with other healthcare workers to ensure the best outcome for the patients. All these things take time and effort, and results may not be immediate, but it is worth doing them consistently.

Thomas Edison once said: "We should remember that good fortune often happens when opportunity meets with preparation". As medical physicists, let's be prepared, so that we can grab the opportunities with both hands when they present themselves.

$$1.00^{365} = 1.00$$

$$1.01^{365} = 37.8$$

Doing nothing at all

vs.

Small consistent effort

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International Day of Medical Physics Celebrations (IDMP-2021)

INTERNATIONAL DAY OF MEDICAL PHYSICS
NOVEMBER 7, 2021

COMMUNICATING THE ROLE OF
MEDICAL PHYSICISTS TO THE PUBLIC



EFOMP

FAMPO

AFOMP

MEFOMP

SEAFOMP

ALFIM

AAPM
COMP

MEDICAL PHYSICISTS ...

*Take the lead in optimizing
the use of radiation
to treat cancer,*

*Estimate radiation doses
from radiological
imaging procedures.*

*Teach doctors, radiological
technologists and nurses
about the radiations used in
imaging and treatment*

*Are responsible for radiation
safety of patients and staff*

*Understand newer imaging
and therapy technologies
and train others to use them.*

IOMP Partners, Regional Organizations, National Member Organizations

Statement By Dr. Chris Trauernicht on the Occasion of the International Day of Medical Physics (IDMP) 2021 Celebration on November 7, 2021, Under the Theme “Communicating the Role of Medical Physicists to the Public”

Dear Medical Physics Colleagues across Africa, I hope this message finds you all well, it is my pleasure to address you on the occasion of the International Day of Medical Physics (IDMP 2021) which is being celebrated by the International Organization for Medical Physics (IOMP) under the theme:

“Communicating the Role of Medical Physicists to the Public”

The main aim for the IDMP theme is to educate the public about our role as leaders in the field, specifying some of the key roles Medical Physicists play:

1. Take the lead in optimizing the use of radiation to treat cancer.
2. Estimate radiation doses from radiological imaging procedures.
3. Teach doctors, radiological technologists, and nurses about the use of radiation in imaging and treatment.
4. Are responsible for radiation safety of patients and staff.
5. Understand, optimize and develop newer imaging and therapy technologies and train others to use them.

As you know, FAMPO is the regional Federation of the International Organization for Medical Physics (IOMP) in Africa. The Federation has been established primarily to raise the standard of medical physics practice in Africa. FAMPO aims to tackle development, communication, and representation in areas that contribute not only toward a consistent high-quality service in our roles as medical physicists, but also towards the future growth of medical physics, both as an interdisciplinary scientific field and as a profession.

Let us also work towards legal and professional recognition of medical physics in member organizations who lack this recognition, taking note of the International Labour Organization’s 2008 definition of the Medical Physics profession, stating that “.... Medical physicists are considered to be an integral part of the health work force alongside those occupations classified in sub-major group 22, Health professionals....”.

The characteristics of a good and healthy workplace culture include collaboration, communication, and teamwork. This includes a culture of respect, where all team members, including medical physicists, are considered an integral part of the healthcare team; good rapport with different worker groups, such as with radiographers, radiotherapists, dosimetrists, radiologists, radiation oncologists, nuclear physicians, nurses, biomedical engineers and management; and quality improvement through process improvement and continuing education. I would like to encourage all medical physicists to work towards excellence in their professional practices.

Please let us all endeavour to use the [IDMP 2021 poster](#) issued by the IOMP and distribute them widely in your **Events** and **Celebrations** among your prospective National Medical Physics Societies throughout Africa.

I wish all my colleagues around Africa a Happy Medical Physics Day. Enjoy the celebrations of this day and tell your neighbours how great Medical Physicists are!

Dr. Chris Trauernicht
FAMPO President

Egypt Celebrates IDMP 2021

Nashaat Deiab

Under the auspices of the Governor of Dakahliya, the Dean of the Faculty of Science of Mansoura University, the Secretary General of the Egyptian Scientific Syndicate and the Mansoura Medical Physicists Team (MMPT), in cooperation with the Egyptian Association for Medical Physics (EAMP) and (FAMPO), a scientific conference and workshop were organized to celebrate International Day of Medical Physics (IDMP 2021) in two days 4th and 5th November, 2021 at the headquarters of the Sub- Scientific Syndicate in Mansoura – Dakahliya Governorate and with the participation of university professors and heads of radiology departments and departments of physics and biophysics of 9 governmental faculties of science from in addition to the National Cancer Institute – Cairo University, the Nasser Institute for Research and Treatment – Ministry of Health and Population.



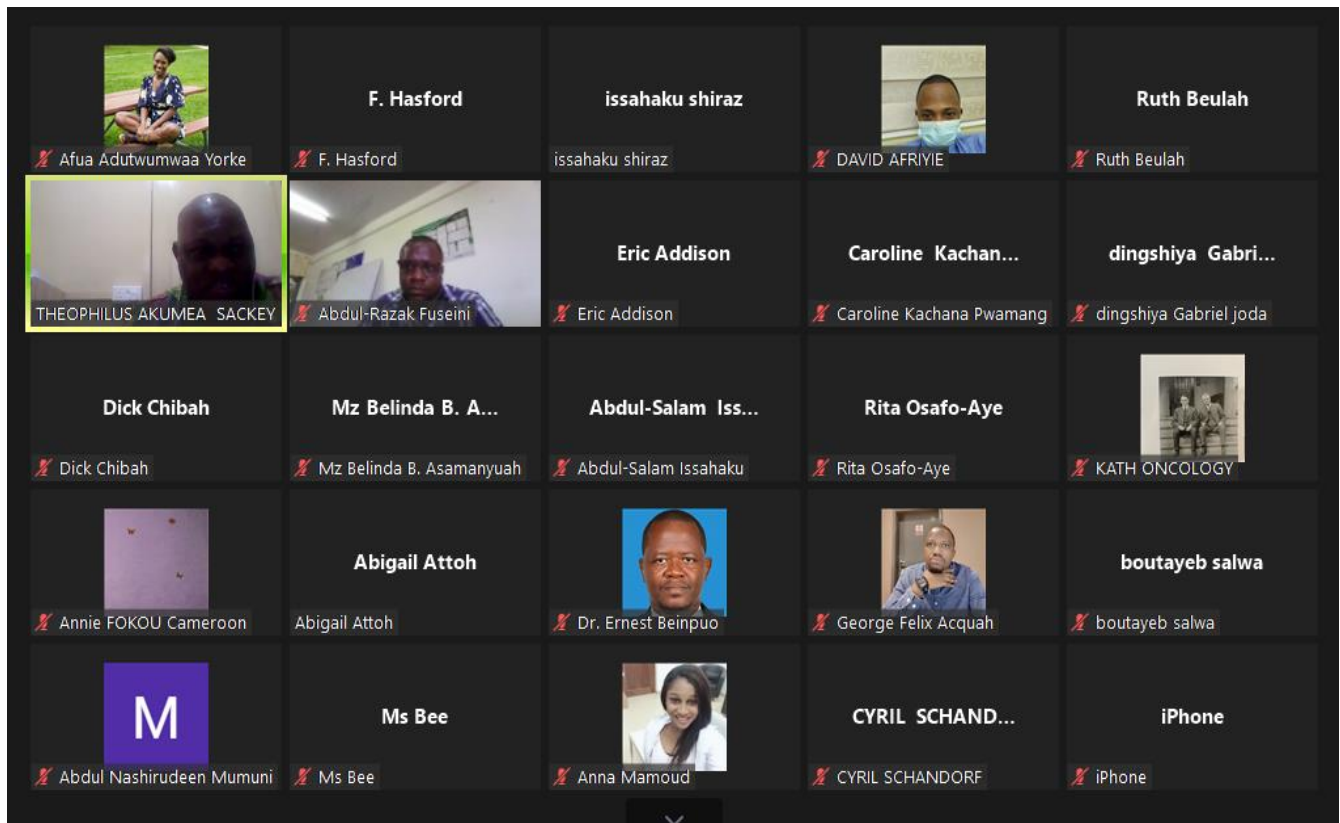
Ghana Celebrates IDMP 2021

Theresa Dery, Shiraz Issahaku, Francis Hasford

On 8th November 2021, Ghana Society for Medical Physics (GSMP) held a webinar in commemoration of the International Day of Medical Physics (IDMP). The Society joined all medical physicists around the world in celebrating this important day instituted by the International Organization for Medical Physics (IOMP) to mark the birth date of Marie Skłodowska Curie for her pioneering research on radioactivity. Theme for the celebration was "Communicating the Role of Medical Physicists to the Public".

GSMP's scientific webinar hosted via Zoom, with over 80 participants including academicians, clinicians, policy makers, researchers, students among others, educated participants of the key roles medical physicists play in healthcare delivery.

Speakers for the day were Dr. Afua Yorke (University of Washington) and Mr. Theophilus Sackey (Ghana Atomic Energy Commission), with presentations on the topics "Medical Physics Quality Assurance and Safety Management Practices in LMICs – The Importance of Collaboration and Comprehensive Review of Current Practices" and "Minimizing and Communicating Radiation Risk to the Public – The role of Medical Physicist" respectively.



South Africa celebrates IDMP 2021

Chris Trauernicht

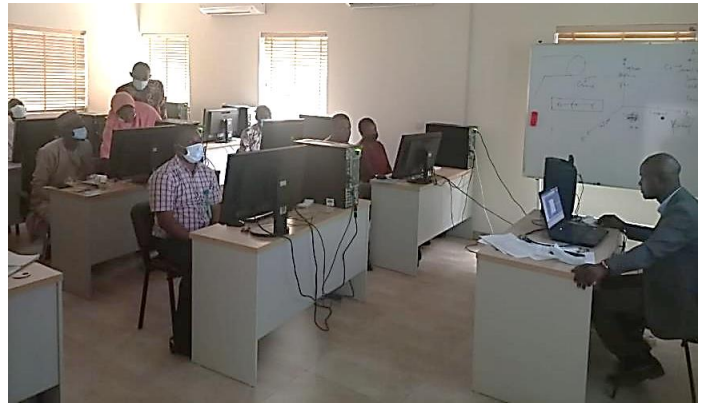
The South African Association of Physicists in Medicine and Biology (SAAPMB) hosted their 58th congress from 8 – 11 November 2021 in the coastal city of Gqeberha, until recently known as Port Elizabeth, or more fondly, as “The Friendly City”. The congress, which is usually held annually, was postponed from 2020. The strict lockdown regulations prohibited an in-person attendance of more than 50 people until recently. Therefore, the on-site attendance was substantially less than normal, but included a hybrid component, which many took advantage of. All attendees received T-shirts and mugs on the first day of the congress, in order to celebrate the International Day of Medical Physics on the opening night of the congress. It was fantastic to connect with colleagues and friends from all over South Africa face-to-face after more than two years. It was enriching to hear about ongoing research at the various institutions in the country and it was great to start it all off on a high with our IDMP celebrations!



Nigeria celebrates IDMP 2021

Samuel Adeneye, Iyobosa Uwadiae, Victor Ekpo, Fatai Balogun

The Annual conference of the National Association of Medical Physicists (NAMP) was set for November 3rd through 5th, 2021. The association (NAMP) in partnership with Varian medical systems honoured the International Day of Medical Physicists (IDMP) with the theme "Communicating the Roles of Medical Physicists to the Public" by hosting an onsite workshop for physicists with no clinical experience on November 5, 2021. The training focused on using the Varian Eclipse Treatment Planning System to plan prostate cancer case.



On the 25th of October, in preparation for this event, an online Google application form was prepared for prospective participants. A total of 85 participants applied for the workshop. From the 25th of October through the 1st of November, applications were accepted. Twenty applicants were selected for the workshop. The selection criteria was based on active members who have paid their NAMP dues in the previous two years. An invitation email was sent to the chosen participants congratulating them. The program was held at the NSIA-LUTH Cancer Centre training room. All of the instructors are members of the centre's medical physics unit.



Registration took place at the centre's entrance when the participant arrived on time. The session began at 10:00 am with a zoom on-air presence put up for individuals who were not chosen. The president of the NAMP gave a welcome speech ably represented by the general secretary of the association. In the first two hours, the assistant general secretary gave a practical demonstration on understanding the anatomy and contouring of a typical prostate case, as well as formulating a plan, prescription, and beam orientation.

The first instructor, spent the next hour explaining beam placement, beam modifiers (MLC, wedges, and bolus) and dose estimates. Another instructor gave a session on plan evaluation and optimization. These were followed-up with a one-hour hands-on practical session by the participants physically present with the supporting physicists. The second session resumed at 3:00 pm after a one-hour break for both participants and instructors.

The NAMP assistant general secretary followed with an hour demonstration on advanced treatment planning techniques (Intensity Modulated Radiotherapy and Volumetric Modulated-Arc Therapy) as well as manoeuvring the dose optimizer. The final hour was set out for hands-on activities by participants. Questions were entertained and responses were offered in a timely manner. At 5:00 p.m., the workshop came to a close. It was a wonderful experience, and the feedback from participants was very positive.



Hope Rises for Radiotherapy in Nigeria

I.B Uwadiae, B.I Akinlade, E.O Oyekunle, O.G Ajeleti, B Onawola, A Adedokun, M. Umakha

In the year 2019, the Federal Government of Nigeria, through one of the projects of the Ministry of Health reinforced the existing radiotherapy centres who had external beam radiotherapy machines by equipping them with High Dose Rate (HDR) Cobalt-60 Brachytherapy machines. These HDR afterloaders have the capacity to treat conventional gynecological cases as well as breast and prostate cancers amongst other common malignancies requiring brachytherapy. This is a boost to radiation oncology practices in Nigeria. The centres that benefited from the 2019 projects are: University College Hospital (UCH), University of Benin Teaching Hospital (UBTH), University of Nigeria Teaching Hospital (UNTH), Ahmadu Bello University Teaching Hospital (ABUTH), National Hospital Abuja (NHA), and Usmanu Danfodiyo University Teaching Hospital (UDUTH).

Prior to the installation of these equipment in the Country, there were only two centres offering HDR brachytherapy services mainly for gynecological cancers (cervix and vagina). The first brachytherapy machine was installed in 2007 at the University College hospital, Ibadan, South-Western Nigeria, through the International Atomic Energy Agency (IAEA) Technical Cooperation Project and became operational in the year 2008 through 2016. In 2010, the Federal Medical Center (FMC) Gombe, located in the Northern Part of the Country, joined the UCH with an Iridium-192 HDR afterloader. UCH in 2019 upgraded its 5-channel HDR afterloader to a 25-channel afterloader machine through a Private Public Partnership (PPP) arrangement while also receiving an additional equipment through the Federal Government of Nigeria; bringing the number of its brachytherapy machines to two. This made it possible for the hospital to extend its brachytherapy services to prostate cancer in 2020 with plans to treat other cancer sites in the very near future. The University College Hospital Ibadan has been able to treat 30 patients living with prostate cancer successfully since installation of the machine, being the pioneer centre to commence HDR brachytherapy prostate temporary implant. In addition, the centre has been offering clinical training and support to other centres in the country, that acquired the same machine through the FG project.

The covid-19 pandemic caused a delay in the commissioning of the machines and training of staff, hence most of the centres could not commence treatment delivery in 2019 when the installations were done. This year, however, several onsite and remote trainings have been held across the centres and most recently, was a two-week national IAEA training workshop hosted by the University College Hospital, Ibadan. The IAEA training course at UCH hosted participants (Medical Physicists, Radiation Oncologists, Nurses and Therapy Radiographers) from the different radiotherapy centres in the Country. Aside from the Federal Government Institutions with SagiNova HDR afterloaders, there are two private centres who joined the brachytherapy train. The NSIA-LUTH Cancer Centre in Lagos and the Asi Ukpo Cancer Centre in Calabar; Each installing an Iridium-192 Varian GammaMedplus HDR afterloader and an Elekta Flexitron Cobalt-60 HDR afterloader respectively. The NSIA-LUTH commenced treatment of gynecological cancer patients just recently in August 2021 following after the UBTH that had commenced treatment one month prior.

It is important to note that, in addition to the 9 installed units in the Country, there are still two machines that are yet to be commissioned. This will bring the total number of brachytherapy machines in the country to 11 and counting. This is still a far cry from where the Country needs to be in terms of the number radiotherapy equipment but it is a good step in the right direction. Of all the cancer cases seen in the country, gynecological cancers are the most common amongst women. More than 50% of all cancer patients usually require radiotherapy as part of their treatment of which

brachytherapy is an important component, especially for localized diseases. Brachytherapy can be delivered as a monotherapy or as a compliment to external beam radiotherapy. Having both treatment techniques in a radiotherapy facility gives patients the opportunity to receive the requisite treatment they might need.

Nigeria is set to be a brachytherapy hub in the region with this new development, but more importantly, it would help to relief the already rising cancer burden in the country. Prior to the upgrading of the radiotherapy centres, patients had to travel far to receive brachytherapy at UCH the only centre then with HDR Brachytherapy facility, but now patients would no longer have to travel very far to receive brachytherapy as it is now within reach of their geographical zones.

Awards and Honours

In 2021, the IOMP presented awards in different categories to deserving candidates for their roles in projecting medical physics profession worldwide. Below are awardees:

IUPAP AWARD:

Dr. Chai Hong Yeong is the winner of IUPAP Award for her research work on ^{153}Sm for Nuclear Medicine imaging and therapy (Citation: Production and first use of $^{153}\text{SmCl}_3$ -ion exchange resin capsule formulation for assessing gastrointestinal motility, CH Yeong et al, Applied Radiation and Isotopes 70, 450-455, 2012).

Dr Chai was born in Malaysia and obtained a Master of Medical Physics, University of Malaya, 2007 and a PhD at the University of Malaya. She is a very active member of the Medical Physics society, acting as Chair of Professional Relations Committee of Asia-Oceania Federation of Organizations for Medical Physics (AFOMP), Vice President, South-East Asia Federation of Organizations for Medical Physics (SEAFOMP), Vice President, Malaysian Association of Medical Physics (MAMP), member of Web Sub-Committee (Newsletter) of International Organization for Medical Physics (IOMP) and Member of IOMP Women Sub-Committee.



IDMP AWARD:

International Organization for Medical Physics (IOMP), the global umbrella body for Medical Physics professionals, has awarded Dr. Francis Hasford as recipient of the 2021 IDMP Award, for his excellence in Medical Physics and promotion of the profession to a larger audience and highlighting the contributions medical physicists make for patient care. Dr. Hasford is among five other recipients from different geographical regions of the world to receive this award which is linked to the International Day of Medical Physics (IDMP), from which it takes its name.

Profile of Dr. Hasford

<https://fampo-africa.org/dr-francis-hasford-is-idmp-2021-awardee-for-advancing-medical-physics-in-africa/>



IDMP 2021 Awardees

Name of Awardee	Affiliate Society	Geographical Region
Prof. Stephen Balter	AAPM	North America (USA and Canada)
Dr. Shigekazu Fukuda	AFOMP	Asia and Oceania
Michel Salvator Israel	BSMPE	South-East Europe
Jose Perez Calatayud	EFOMP	Europe
Dr. Francis Hasford	GSMP / FAMPO	Africa
Mashari Al-nuaimi	KAMP / MEFOMP	Middle East

IOMP FELLOWS:

This honour aims to recognize significant activities for the international development of medical physics. The fellowship is awarded to persons who have made outstanding contributions to IOMP and its regional organizations over a significant period of time.

In 2021, the following personalities were honoured as fellows of the IOMP:



Taofeeq Ige, FAMPO



Xiaowu Deng, AFOMP



Steve Balter, AAPM



Golam Abu Zakaria, DGMP



Arun Chougule, AFOMP



Habib Zaidi, EFOMP



Freddy Haryanto, SEAFOMP



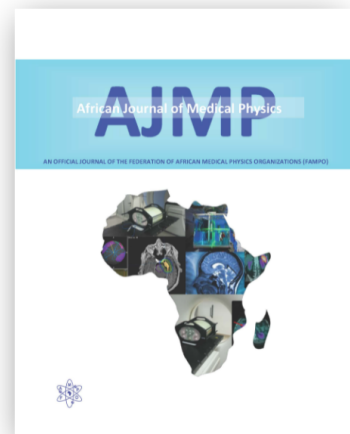
Kharita Hassan, MEFOMP

African Journal of Medical Physics

Welcome to the African Journal of Medical Physics (AJMP)
ISSN2643-5977

AJMP–An Official Journal of the Federation of African Medical Physics (FAMPO)

The African Journal of Medical Physics (AJMP) publishes novel and high-quality research papers and other material on all topics relating to medical physics, biomedical sciences, medical imaging and molecular imaging for diagnosis, therapy and disease management. The journal provides an effective way to publish original research articles, review articles, short communication, rapid communication, letter to the editor, case report etc. It strives with a passion to publish articles on diverse themes of theoretical, computational, experimental and related clinical research from across the globe on a sole platform where there will be a wide scope to share ideas involved from latest on-going research. It is the goal of the journal to provide an international forum for education and training in medical physics, radiation oncology, radiation detection, radiation protection, radiation shielding, and radiation response, new technologies development and applications, diagnostic and radiotherapy physics and applications.



Download the latest edition of the AJMP publication (**Vol. 3, No. 2; 2021**) from

<https://globalmedicalphysics.org/journal-volume-32/>

For submission of quality research articles:

<https://globalmedicalphysics.org/>

IOMP Medical Physics World (eMPW)

Vol. 37, No. 2; December 2021 edition

<https://www.iomp.org/iomp-medical-physics-world-december-2021/>

Medical Physics International MPI (2021, vol.9, No.2)

<http://www.mpijournal.org/pdf/2021-02/MPI-2021-02.pdf>

http://www.mpijournal.org/content_inpress.aspx

This issue focuses on the professional development in EFOMP

Calendar of Events

14th Annual International Symposium on Stereotactic Body Radiation Therapy and Stereotactic Radiosurgery

When Feb 25 – 27, 2022

Where Disney's Grand Floridian Resort – Lake Buena Vista, FL , USA

Website: www.clevelandclinicmeded.com/live/courses/sbrt/

Precision Medicine Applications in Radiation Oncology

When Mar 7 – 8, 2022

Where The Ritz-Carlton Bacara, Santa Barbara, CA USA

Website www.ci4cc.org

5th Conference on Small Animal Precision Image-Guided Radiotherapy

When Mar 21 – 23, 2022

Where Munich, Germany (map)

Website <https://small-animal-rt-conference.com>

BIR Annual Radiotherapy and Oncology Meeting 2022

When Mar 31 – Apr 1, 2022

Where London, UK and virtual

Website www.mybir.org.uk

13th QA & Dosimetry Symposium

When Apr 8 – 9, 2022

Where Orlando, Florida, USA

Website www.qasymposium.com

International Conference on Monte Carlo Techniques for Medical Applications

When Apr 11 – 13, 2022

Where University of Antwerp, Prinsstraat 13, 2000 Antwerpen, Belgium

Website www.mcma2022.com

International Medical Physics Week (IMPW)

When Apr 9 – 13, 2022
Website <https://www.iomp.org/impw/>

2nd International Scientific Conference on Lasers, Optics, Photonics & Sensors

When Jun 10 – 12, 2022
Where Fort Lauderdale, FL, USA
Website www.exceleve.com/photonoptics

IUPESM World Congress on Medical Physics and Biomedical Engineering

When Jun 11 – 17, 2022
Where: Sands Expo® and Convention Centre, Marina Bay Sands. Singapore
Website www.wc2022.org

6th African Regional Congress on Radiation Protection (AFRIRPA06 Congress)

When Oct 10 – 13, 2022
Where: Accra, Ghana
Website www.afirpa06.org

International Day for Medical Physics (IDMP)

When Nov 7, 2022
Website <https://www.iomp.org/idmp-2021/>

FAMPO Conference

When Nov 2022
Where: Marrakech, Morocco
Website <https://conference.fampo-africa.org>

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