

Sands Expo and Convention Centre, Level 3
 IUPESM WC2022 Programme Overview (updated as at 9 June 2022)
 Programme is subject to change without prior notice.

Venue	Heliconia Main Ballroom	Hibiscus 3602	Hibiscus 3604	Hibiscus 3606	Hibiscus 3702	Hibiscus 3704	Hibiscus 3706
Sunday, 12 Jun 2022							
0730 onwards	Registration (0730 onwards) and Coffee Break (1000-1100) Cassia Main Ballroom, Level 3						
1100 - 1230	Opening Ceremony Presentation of IUPESM, IFMBE and IOMP Awards Ceremony						
1230 - 1330	Lunch Break, Exhibition and Poster Viewing Cassia Main Ballroom, Level 3						
1330 - 1400	IUPESM Congress Lecture: Materials for the Future Sir Konstantin Novoselov, Singapore Session Chair: James Goh, Singapore						
1400 - 1430	Plenary Lecture 1 Building and Clinically Translating New Technology for Cancer Imaging and Targeted Radiation Therapy Prof Paul Keall, Australia						
1430 - 1500	Plenary Lecture 2 Bioengineering Approaches to Heal the Body and Detect Diseases Earlier Prof Molly Stevens, UK						
1500 - 1630	IFMBE Toh Siew Lok BME Student Design Award Symposium Oral Presentations	Special Symposium 1 Materials for Immuno-engineering	Special Symposium 2 Wearable Health Technology (Part 1)	Special Symposium 3 Confinement Mechanobiology	Special Symposium 4 Engineering Biology - A Primer	Special Symposium 5 Hot Topics in X-ray Imaging Radiation Protection	Special Symposium 6 The Past, Present and Future of Targeted Radionuclide Therapy
1630 - 1800	IFMBE Young Investigator Award Symposium Oral Presentations (Session 1)	Special Symposium 7 Soft Robotics in Healthcare	Special Symposium 8 Wearable Health Technology (Part 2)	Special Symposium 9 Cyber-medical Systems and Robot-assisted Surgery	Special Symposium 10 Testing Physics in Clinical Trials	Special Symposium 11 Planned New Recommendations of ICRP [IOMP-ICRP-IAEA-WHO]	Education Session 1 IOMP School: Advances in Radiation Therapy Dosimetry
1800 - 1930	IOMP Best Presentation Award Symposium Oral Presentations	Special Symposium 12 Bioelectronic Technologies, Diagnostics and Therapies	Special Symposium 13 Computer Simulation in Medical Devices Development	Oral Session 1.1 BioMechanics and Mechanobiology	Special Symposium 14 Scientific and Strategic Leadership in Medical Physics - We Need Both!	Special Symposium 15 Current Knowledge of Radiobiological Aspects of Novel Treatment Techniques	Education Session 2 16th ACOMP Course: Proton Therapy
1930 - 2030	WC2022 Welcome Reception Cassia Main Ballroom, Level 3						

Sands Expo and Convention Centre, Level 3
 IUPESM WC2022 Programme Overview (updated as at 9 June 2022)
 Programme is subject to change without prior notice.

Venue	Heliconia Main Ballroom	Hibiscus 3602	Hibiscus 3604	Hibiscus 3606	Hibiscus 3702	Hibiscus 3704	Hibiscus 3706
Monday, 13 Jun 2022							
0730 onwards	Registration Cassia Main Ballroom, Level 3						
0830 - 1000	0830-0915 Meet the Expert PTW Asia Pacific	IFMBE Young Investigator Award Symposium Oral Presentations (Session 2)	Oral Session 2.1 BioMechanics and Mechanobiology	Education Session 3 Health Technology Assessment (HTA) of Medical Devices - The Role of Biomedical and Clinical Engineering	Education Session 4 Academic Entrepreneurship: Lessons Learned From Those Who Have Tried and Succeeded	Education Session 5 IOMP School: Advances in Radiation Therapy	Education Session 6 17th ACOMP Course: Update on ICRP Radiation Protection in Diagnostic Radiology
1000 - 1030	Coffee Break, Exhibition and Poster Viewing Cassia Main Ballroom, Level 3						
1030 - 1100	Plenary Lecture 3 Artificial Intelligence in Medicine: Yesterday, Today, and Tomorrow Prof Xing Lei, USA						
1100 - 1130	Plenary Lecture 4 AI Applications in Healthcare: Lessons from the Frontline Prof Tien Yin Wong, Singapore						
1130 - 1230	IFMBE Awardee Oral Presentation John A. Hopps Distinguished Service Award Laura Bassi Award I						
1230 - 1330	Lunch Symposium Satellite Varian Medical Sys Pacific	Lunch Break, Exhibition and Poster Viewing Cassia Main Ballroom, Level 3					
1330 - 1500	IFMBE Awardee Oral Presentation Otto Schmitt Award Vladimir K. Zworykin Award Laura Bassi Award II	Special Symposium 16 Advances in Sensing and Digital Health	Special Symposium 17 Extracellular Vesicles for Diagnostic and Therapeutic Applications	Special Symposium 18 Medical Physics Education - Certification to Registration	Special Symposium 19 Leadership and Collaboration in Medical Physics and Biomedical Engineering - Women Leaders	Oral Session 2.2 Clinical Engineering	Oral Session 2.3 Radiation Dosimetry
1500 - 1530	Coffee Break, Exhibition and Poster Viewing Cassia Main Ballroom, Level 3						
1530 - 1700	WC2028 Bid Presentation	Special Symposium 20 Advances in Liquid Biopsies	Special Symposium 21 Ubiquitous Electroencephalography	Oral Session 2.4 Healthcare Analytics, Big Data and AI	Special Symposium 22 Small Field Dosimetry from TRS-483 to TG-155	Special Symposium 23 Biomedical Advances in Micro-, Nano- and Digital Technologies	Oral Session 2.5 Radiation Dosimetry
1700 - 1830	Special Symposium 24 Cardiovascular Biomechanics in Precision	IFMBE Council of Societies (CoS) By Invitation only	Oral Session 2.6 Bio-Micro/Nanotechnologies	Oral Session 2.7 Healthcare Analytics, Big Data and AI	Oral Session 2.8 BioMechanics and Mechanobiology	Oral Session 2.9 Innovations Against COVID-19 and Other Human Diseases	Oral Session 2.10 Radiation Dosimetry
1830 - 1900							

Sands Expo and Convention Centre, Level 3
 IUPESM WC2022 Programme Overview (updated as at 9 June 2022)
 Programme is subject to change without prior notice.

Venue	Heliconia Main Ballroom	Hibiscus 3602	Hibiscus 3604	Hibiscus 3606	Hibiscus 3702	Hibiscus 3704	Hibiscus 3706
Tuesday, 14 Jun 2022							
0730 onwards	Registration Cassia Main Ballroom, Level 3						
0830 - 1000	0830-0915 Meet the Expert Genscript Asia Pacific	Education Session 7 IFMBE CED Benefit of our Extensive Hacking Repository Collection for Global Research	Special Symposium 25 Organ Doses from Diagnostic and Therapeutic Procedures: Necessity and Feasibility	Special Symposium 26 Material Systems for Quantitative Mechanobiology	Oral Session 3.1 Bioelectronics and Electroceuticals	Education Session 8 Advances in In-Vivo Dosimetry for External Beam Radiotherapy (Sun Nuclear)	Education Session 9 18th ACOMP Course: Quality & Safety in SBRT MLC Tracking: Clinical Rationale, Clinical Experience, Guidelines & Future Directions
1000 - 1030	Coffee Break, Exhibition and Poster Viewing Cassia Main Ballroom, Level 3						
1030 - 1100	Plenary Lecture 5 Innovative High-Throughput Tissue Engineering Strategies for Better Understanding and Optimizing Biomaterial/Cell Interactions Prof Rui Reis, Portugal						
1100 - 1130	Plenary Lecture 6 (SEAFOMP John Cameron Memorial Lecture): Photon- counting-detector CT Technology and Clinical Applications Prof Cynthia H. McCollough, USA						
1130 - 1230	Special Symposium 27 Engineering Biology for Sustainability						
1230 - 1330	Lunch Symposium Satellite Elekta Instrument AB	Lunch Break, Exhibition and Poster Viewing Cassia Main Ballroom, Level 3					
1330 - 1500	IOMP Awardee Presentation M Curie Award Harold Johns Medal	Education Session 10 Clinical Engineers Advocating for Single Global Nomenclature	Special Symposium 28 Frontiers of Multifunctional Biomedical Ultrasound Technologies	Special Symposium 29 Diagnostic Reference Levels	Special Symposium 30 AI in Radiotherapy	Oral Session 3.2 Radiation Therapy Physics	Oral Session 3.3 Bio-Micro/Nanotechnologies
1500 - 1530	Coffee Break Area, Exhibition and Poster Viewing Cassia Main Ballroom, Level 3						
1530 - 1700	IUPESM Awardee Oral Presentation	Special Symposium 31 Ethical Issues in Biomedical Engineering	Oral Session 3.4 Radiobiology	Special Symposium 32 Advances and Current Trends in Hybrid PET Imaging	Oral Session 3.5 Diagnostic and Interventional Radiology Physics	Oral Session 3.6 Radiation Therapy Physics	Oral Session 3.7 Bio-Micro/Nanotechnologies
1700 - 1830	1730-1945 IFMBE General Assembly	Special Symposium 33 Science Diplomacy for Future Advancement in Medical Physics	Special Symposium 34 Digital Transformation and Artificial Intelligence: Data Driven Decision Making for the Care and Health of the Future	Special Symposium 35 Are Many Patients Getting High Doses Over 100 mSv and What Can Be Done? [IOMP-IAEA-WHO-DITTA]	Oral Session 3.8 Nuclear Medicine and Molecular Imaging Physics	Oral Session 3.9 Radiation Therapy Physics	Oral Session 3.10 Bio-Micro/Nanotechnologies
2030 - 2230	IFMBE Presidential & CoS Reception By Invitation only						

Sands Expo and Convention Centre, Level 3
 IUPESM WC2022 Programme Overview (updated as at 9 June 2022)
 Programme is subject to change without prior notice.

Venue	Heliconia Main Ballroom	Hibiscus 3602	Hibiscus 3604	Hibiscus 3606	Hibiscus 3702	Hibiscus 3704	Hibiscus 3706
Wednesday, 15 Jun 2022							
0730 onwards	Registration Cassia Main Ballroom, Level 3						
0830 - 1000	0900-1000 IFMBE Meet the Editor Sessions MBEC + Health & Tech	Education Session 11 IFMBE CED and the Global CE Community Perspectives on Digital Health	Special Symposium 36 Gradient Hydrogel Systems for Studying Cell-matrix Interactions	Special Symposium 37 Integrated Microscale Tools for Healthcare	Special Symposium 38 Global Experience and Contributions of MPs and BMEs During the COVID-19 Pandemic	Education Session 12 The Clinical Implementation of the Elekta Unity MR-Linac: A Medical Physics Perspective (Elekta)	Education Session 13 19th ACOMP Course: Shielding Techniques for Radiation Oncology Facilities
1000 - 1030	Coffee Break, Exhibition and Poster Viewing Cassia Main Ballroom, Level 3						
1030 - 1200	IFMBE Scientific Challenge 2022	Education Session 14 Clinical Engineers and Medical Physicists Partnership for Improved Health Outcomes	Special Symposium 39 Medical Physics Challenges in the Middle East Region	Special Symposium 40 IUPESM MEP Workshop: Aspects of Collaboration and Cooperation in Medical Physics and Biomedical Engineering	Oral Session 4.1 Radiation Therapy Physics	Oral Session 4.2 BioRobotics and Medical Devices	Oral Session 4.3 Neuroengineering/Neurotechnology
1200 - 1300	Lunch Symposium Satellite: HealthTEC	Lunch Break, Exhibition and Poster Viewing Cassia Main Ballroom, Level 3					
1300 - 1330	Exhibition and Poster Viewing Cassia Main Ballroom, Level 3						
1330 - 1500	WIMBE Video Clip Contest: Inspiring Women in Biomedical Engineering	Education Session 15 The Biomedical Engineering Role in the Fight Against COVID-19 in Africa: Learning from Experiences	Special Symposium 41 Role of South Asia Centre for Medical Physics and Cancer Research for Education and Training of Medical Physicists in South Asia Region (Part 1)	Special Symposium 42 Advances in Particle Theory (Part 1)	Oral Session 4.4 Computational Modelling and Simulation	Oral Session 4.5 BioRobotics and Medical Devices	Oral Session 4.6 Neuroengineering/Neurotechnology
1330 - 1500	SEAFOMP Council Meeting By Invitation only Heliconia Junior 3511						
1330 - 1430	BES Scientific Meeting Award Ceremony By Invitation only Heliconia Junior 3411						
1500 - 1530	Coffee Break, Exhibition and Poster Viewing Cassia Main Ballroom, Level 3						
1530 - 1600	Plenary Lecture 7 Ten Grand Challenges of Robotics Prof Guang Zhong Yang, China						
1600 - 1630	Plenary Lecture 8 Are We Ready for a Renaissance in Physics and Engineering in Medicine? Prof Kwan Hoong Ng, Malaysia						
1630 - 1800	IUPESM General Assembly	Special Symposium 43 Innovation and Development of Traditional Chinese Medicine Engineering	Special Symposium 44 Role of South Asia Centre for Medical Physics and Cancer Research for Education and Training of Medical Physicists in South Asia Region (Part 2)	Special Symposium 45 Advances in Particle Therapy (Part 2)	Oral Session 4.7 Computational Modelling and Simulation	Oral Session 4.8 Radiation Dosimetry	Oral Session 4.9 Patient Safety and Radiation Protection (General)

Sands Expo and Convention Centre, Level 3
 IUPESM WC2022 Programme Overview (updated as at 9 June 2022)
 Programme is subject to change without prior notice.

Venue	Heliconia Main Ballroom	Hibiscus 3602	Hibiscus 3604	Hibiscus 3606	Hibiscus 3702	Hibiscus 3704	Hibiscus 3706	
Thursday, 16 Jun 2022								
0730 onwards	Registration Cassia Main Ballroom, Level 3							
0830 - 1000	IFMBE Asian-Pacific Research Network Scientific Paper Presentations	Education Session 16 Teaching Biomedical Engineering Courses in Latin America during the COVID-19 Pandemic	Oral Session 5.1 Bioluminescence and BioSignals	Oral Session 5.2 Healthcare Analytics, Big Data and AI	Oral Session 5.3 Medical Physics and Biomedical Engineering Education, Training and Professional Development	Oral Session 5.4 Innovations in Medical Physics	Education Session 17 Advances in Proton Therapy with the Varian ProBeam System	
1000 - 1030	Coffee Break, Exhibition and Poster Viewing Cassia Main Ballroom, Level 3							
1030 - 1200	IFMBE Special Session of Sustainable Development Goals in Health Care	Education Session 18 Critical Role of Clinical Engineers during COVID-19: Lessons Learned for the International Community	Oral Session 5.5 Bioluminescence and BioSignals	Special Symposium 46 2022 - International Year of Basic Sciences for Sustainable Development	Oral Session 5.6 Medical Physics and Biomedical Engineering Education, Training and Professional Development	Oral Session 5.7 Innovations in Medical Physics	Education Session 19 The Good, The Bad, and The Unknown: How IR4.0 Affects Healthcare	
1200 - 1330	Lunch Break, Exhibition and Poster Viewing Cassia Main Ballroom, Level 3	Education Session 20 Student-Industry Lunch	Lunch Break, Exhibition and Poster Viewing Cassia Main Ballroom, Level 3					
1330 - 1500	Oral Session 5.8 Biomaterials and Regenerative Medicine	Oral Session 5.9 Health Technology Assessment	Oral Session 5.10 Bioluminescence and BioSignals	Oral Session 5.11 Healthcare Analytics, Big Data and AI	Oral Session 5.12 Computational Modelling and Simulation	Special Symposium 47 The Impact of COVID Pandemic on Gender-related Home Office in STEM Fields	Oral Session 5.13 Biomaterials and Regenerative Medicine	
1500 - 1530	Coffee Break Area, Exhibition and Poster Viewing Cassia Main Ballroom, Level 3							
1530 - 1700	<u>1530-1630</u> IAMBE Early Career Award Symposium Presentations	Oral Session 5.14 Health Technology Assessment	Oral Session 5.15 Bioluminescence and BioSignals	Oral Session 5.16 Healthcare Analytics, Big Data and AI	Oral Session 5.17 Computational Modelling and Simulation	Special Symposium 48 Grant Writing and Publishing in Today's Competitive World	Oral Session 5.18 Biomaterials and Regenerative Medicine	
1630 - 1730	Closing Ceremony and Awards Ceremony							
1930 - 2100	WC2022 Congress Dinner Heliconia Main Ballroom, Level 3							

Sands Expo and Convention Centre, Level 3
 IUPESM WC2022 Programme Overview (updated as at 9 June 2022)
 Programme is subject to change without prior notice.

Venue	Heliconia Main Ballroom	Hibiscus 3602	Hibiscus 3604	Hibiscus 3606	Hibiscus 3702	Hibiscus 3704	Hibiscus 3706
Friday, 17 Jun 2022							
Fully Virtual. Kindly note that there will be NO ACTIVITIES at Marina Bay Sands Singapore.							
		Track 1	Track 2	Track 3			
0830 - 1000		Oral Session 6.1 BioMechanics and Mechanobiology Biomaterials and Regenerative Medicine	Oral Session 6.2 Healthcare Analytics, Big Data and AI	Oral Session 6.3 Multidisciplinary Medical Physics			
1000 - 1030		Intermission					
1030 - 1200		Oral Session 6.4 Clinical Engineering	Oral Session 6.5 Healthcare Analytics, Big Data and AI	Oral Session 6.6 Medical Physics and Biomedical Engineering Education, Training and Professional Development			
1200 - 1330		Intermission					
1330 - 1500		Oral Session 6.7 BioImaging and BioSignals	Oral Session 6.8 Innovations Against COVID-19 and Other Human Diseases	Oral Session 6.9 Radiation Therapy Physics			
1500 - 1530		Intermission					
1530 - 1700		Oral Session 6.10 Bioelectronics and Electroceuticals BioRobotics and Medical Devices	Oral Session 6.11 Nuclear Medicine and Molecular Imaging Physics	Oral Session 6.12 Radiation Therapy Physics			

Programme is subjected to change without prior notice.