Program at a glance
III School of Medical Physics
23 to 27 October 2017- Havana – Cuba

	Mo (23)	Tu (24)	We (25)	Th (26)	Fr (27)
8:00	Credentialing				
8:30	**Keynote presentation**: " Emerging treatment paradigms and future challenges in radiation oncology " M. S. Huq	**Refresher course #1**. (cont.) The IAEA/FORO approach. C. Duménigo	**Keynote presentation**: " Diagnostic Medical Physics: Advancing Our Role – Increasing Our Impact " J. Boone	**Keynote presentation**: "Education, accreditation, and certification in Medical Physics" Y. Pipman, R. Padovani	**Refresher course #6** Special features in treatment planning systems A. Alaminos
9:30	**Refresher course #1**. "Application of risk analysis methods to radiation medicine: The TG-100 approach" M. S. Huq	**Refresher course #1**. (cont.) The InSTEC approach. A. Torres	**Mini-workshop**: Safety and Quality in Radiation Therapy. Y.Pipman, L. Fong de los Santos	Comparison of Education Curriculums between HIC/LMIC for Medical Physics Programs. S. Avery	Breast CT: technical development J. Boone
10:00				Development of clinically based prediction models using machine learning and Bayesian statistics O. Zambrano	Breast CT: clinical evaluation J. Boone
10:30	***Coffee break/Poster session***		***Coffee break/VERT Seminar***		
11:00	**Refresher course #2**: Treatment Planning in SBRT/SRS D. Venencia 5 minute bathroom break	**Refresher course #3**. "Computed Tomography: New metrics for patient dosimetry and image quality assessment" J. Boone 5 minute bathroom break	**Refresher course #4:** Quantitative techniques in MRI: applications" C. Garrido	IMRT QA meets Deep Learning Y. Interian	Automatic Methods for detecting breast anomalies in digital mammography R. Orozco
11:30				Interpretable Machine Learning Models for Radiation Oncology G. Valdés	Methods for Reducing Metal Artifacts in CT. Y. Rodríguez-Gallo
12:00			**Refresher course #5:** "Image Guidance in Stereotactic Radiation Treatments D. Roa	MR guided radiotherapy: the new standard of care in 10 years time (Part I). C. Sandín	Estimation of dose distribution I-131 hyperthyroidism treatment: preliminary results A. López
12:30				Recommendations for commissioning VMAT into a Pinnacle TPS. I. Silvestre	Cyclotron production of 67Cu: A new measurement of nuclear cross sections G. Pupillo
13:00	***Lunch***				

14:00	Oligometastases: Imaging, treatment planning and delivery M. S. Huq	New Clinical and Research Programs in Particle Beam Radiation Therapy: The UCSF Perspective M. Roach	Advances in Radiochromic Dosimetry L. Fong de los Santos	"Standardization of Radiomic Feature Extraction for Building Predictive Models in Oncology" O. Morin	
14:35	Discussion of results of IAEA Training course on Small Field Dosimetry P. Andreo, R. Capote, R. Alfonso	Promise and Pitfalls of Proton Therapy" T. Solberg	Advances in brachytherapy dose calculations L. Beaulieu	Optimization and experimental characterization of a 3 points plastic scintillator dosimeter H. Linares	
15:10		Today's technology in Proton Therapy V. Bourel	A simulation platform for virtual clinical trials in chest X-ray imaging S. Rodríguez	On the potential of proton dosimetry using Cerenkov radiation in optical fibers J. B. Christensen	
15:50	***Poster session***	***Poster session***	Deflection control study of radiotherapy electron beams R. Figueroa	MR guided radiotherapy: the new standard of care in 10 years time (Part II). C. Sandín	
16:15	Modern applications of Monte Carlo simulations for patient-specific QA A. Popescu	The physical basis of contemporary dosimetry protocols A. Popescu	Scintillation applications for in vivo and small field dosimetry L. Beaulieu	Upgrading a biophysical model to compute radiation-induced indirect damage on a DNA molecule with atomic resolution L. de la Fuente	
16:40	"Basic dosimetry: pathway to solve problems in steep dose radiation fields". G. Massillon		Monte Carlo determination of scintillator quenching effect in small radiation fields G. Valdés-Santurio	The ISOLPHARM project: New production method of high specific activity beta-emitting radionuclides as radiopharmaceutical precursors. A. Andrighetto	

Refresher courses

- Refresher course #1: "Application of risk analysis methods to radiation medicine". Lecturers: M. Saiful Huq, Cruz Dumenigo, Antonio Torres
- Refresher course #2: "Treatment Planning in SBRT/SRS". Lecturer: Daniel Venencia: Head of Medical Physics, Ma. Curie Foundation, Córdoba, Argentina
- Refresher course #3: "Advances in Diagnostic Radiology Imaging". Lecturer: John Boone, UC Davis Comprehensive Cancer Center
- Refresher course #4: "Quantitative techniques in MRI: applications". Lecturer: C. Garrido
- Refresher course #5: "Image Guidance in Stereotactic Radiation Treatments". Lecturer: D. Roa
- Refresher course #6: Special Features in Treatment Planning Systems. Lecturer: Armando Alaminos, MEVIS

Lecturers/Speakers:

Adlín López, Head, Nuclear Medicine Department, Hospital Hnos. Ameijeiras, Havana, Cuba
Alberto Andrighetto, Italian Institute of Nuclear Physics, Legnaro National Laboratories (INFN - LNL), Pavia, Italy
Antoniu Popescu: British Columbia Cancer Agency, Vancouver, Canada
Antonio Torres: Department of Nuclear Engineering, Faculty of Nuclear Sciences and Technologies (FCTN), InSTEC, Cuba

Armando Alaminos: MEVIS, Brazil
Carlos E. Garrido Salmon: Department of Physics, Universidade de São Paulo (USP), Brasil.
Carlos Sandín: Clinical Solutions Sales Support Manager, Elekta Limited, UK
Cruz Duménico: National Center for Nuclear Safety (CNCN), Havana, Cuba
Daniel Venencia: Head of Medical Physics, Ma. Curie Foundation, Córdoba, Argentina
Dante Roa: Clinical Professor, Department of Radiation Oncology, UNIVERSITY OF CALIFORNIA – IRVINE
Gaia PUPILLO, Italian Institute of Nuclear Physics, Legnaro National Laboratories (INFN - LNL), Pavia, Italy
Gilmer Valdes, Department of Radiation Oncology, UCSF, California, USA
Grichar VALDES SANTURIO, Technical University of Denmark
Guerda Massillon, UNAM, Mexico
Haydee Linares, Department of Physics, Université Laval and CHU de Quebec, Quebec, Canada.
Ileana Silvestre, National Physical Laboratory, Teddington, UK
Jeppe Brage CHRISTENSEN, Technical University of Denmark
John Boone, UC Davis Comprehensive Cancer Center, USA
Liset DE LA FUENTE ROSALES, Institute of Physics Gleb Wataghin - Unicamp, Brazil.
Luc Beaulieu, Department of Physics, Université Laval and CHU de Quebec, Quebec, Canada.
Luis Fong de los Santos: Department of Radiation Oncology at Mayo Clinic in Rochester, MN, USA
M. Saiful Huq, Director, Med. Phys. Division, Department of Radiation Oncology, University of Pittsburgh, Pennsylvania, USA
Mark Roach: Director, Particle Therapy Research Program, Director, Particle Therapy Research Program, UCSF, USA
Olivier Morin, Department of Radiation Oncology, UCSF, California, USA
Oscar Daniel ZAMBRANO-RAMIREZ, (Universite Caen Normandie. Laboratoire de Physique Corpusculaire (LPC-Caen). France)
Pedro Andreo, Karolinska University Hospital, Stockholm, Sweden
Renato Padovani: Coordinator Master in Medical Physics, International Centre for Theoretical Physics, Trieste
Roberto Capote, International Atomic Energy Agency, Vienna, Austria
Rodolfo G. Figueroa, UFRO, Chile
Rubén OROZCO-MORALES, Universidad Central, V. Clara, Cuba
Stephen Avery, Perelman Center for Advanced Medicine, University of Pennsilvania, Philadelphia, USA
Sunay Rodríguez, KU Leuven and SCK-CEN, Belgium
Timothy Solberg: Professor, Chair of Physics, Radiation Oncology Department, UCSF
Tom Swayne: Radiotherapy Specialist at Vertual Ltd., Hull, UK
Victor Bourel, Director, Medical Physics Engineering, Favaloro University, Buenos Aires, Argentina
Yakdiel RODRIGUEZ GALLO, Universidad Central. V. Clara, Cuba
Yakov Pipman, Chair, Professional Relations Committee, IOMP; Recent Past Chair - International Educational Activities Committee (IEAC) of the AAPM.
Yannet Interian, Assistant Professor of Analytics. UCSF, California, USA