MCMA2017 - International Conference on Monte Carlo Techniques for Medical Applications - 15-18 October 2017, Napoli, Itay

Scientific Programme

Sunday October 15th		Centro Congressi Federico II	
15:00-18:00	Conference Registration		
15:00-17:45	Meeting Editorial Board Physica Medica	Reserved to associate editors and editorial board members	
17:45-18.00	Galileo Galilei Award assignment	Physica Medica best paper in 2016	
18:00-20:00	**Social program**	**Welcoming reception**	
Conference Venue	**Centro Congressi, Università di Napoli Federico II, Via Partenope 36, 80121 Napoli, Italy**		
	https://www.google.it/maps/place/Centro+Congressi+Federico+II/@40.830096,14.2461965,15z/data=!4m5!3m4!1s0x0:0xf66695c27e799158!8m2!3d40.830096!4d14.2461965		

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Scientific Programme

Monday October 16th		Centro Congressi Federico II, Hall: "Aula Magna"	Abstract ID
08:00	Conference Registration		
08:15	Antonio Leal Plaza, Philippe Després and Paolo Russo	Conference opening	
		Welcome address of Academic authorities	
08:30	Alberto Del Guerra, University of Pisa & INFN, Italy	The dawn of PET Monte Carlo: a personal experience	232
09:00	Willi A. Kalender, University of Erlangen-Nuernberg, Germany	Monte Carlo methods for diagnostic radiology	245
	Update on MC code/physics I	**Chair: Frank Verhaegen, Maastro Clinic, Netherlands**	
09:15	Frédéric Tessier (NRCC, Ottawa, Canada)	EGSnrc update: new features and legacy code upgrade	214
09:45	Ernesto Mainegra-Hing (NRCC, Ottawa, Canada)	Consistency of the atomic relaxation algorithm and new photo-electric cross section in EGSnrc	217
10:00	Reid Townson (NRCC, Ottawa, Canada)	Radionuclide decay scheme modelling in EGSnrc	162
10:15	David Rogers (Carleton University, Canada)	Improved kerma calculations with EGSnrc	93
10:30	**Coffee break & Poster session**		
	Update on MC code/physics II	**Chair: Frédéric Tessier, NRCC, Ottawa, Canada**	
11:30	Pablo Cirrone (INFN-LNS, Italy)	Review of Geant4 applications in radiation therapy	228
12:00	Susanna Guatelli (University of Wollongong, Australia)	Validation of Geant4 Fragmentation for Heavy Ion Therapy	22
12:30	Pedro Arce (CIEMAT, Spain)	Status and latest developments of GAMOS/GEANT4 framework	86
12:45	Xiaoya Wang (McGill University, Canada)	Assessment of RBED electron-impact ionization cross sections for Monte Carlo electron transport	165
13:00	Rowan Thomson (Carleton University, Canada)	Quantum versus classical Monte Carlo simulation of low energy electron transport in condensed media	88
13:15	**Lunch**		
	Update on MC code/physics III	**Chair: Michael Fix, Inselspital-University of Berne, Switzerland**	
14:15	Francesc Salvat, Universitat de Barcelona, Spain	Modeling of inelastic collisions of charged particles in condensed matter	219
14:45	Gianfranco Paternò (University of Ferrara, Italy)	Geant4 implementation of inter-atomic interference effect in Small-Angle Coherent X-ray Scattering for materials of medical interest	176
15:00	Salvador García-Pereja (Hospital Regional Universitario de Málag	Ant colony algorithm for driving variance reduction techniques in Monte Carlo simulations	134
15:15	Felix Horst (THM University of Applied Sciences & GSI Helmholtz	Novel data relevant for helium ion therapy and their comparison with FLUKA nuclear reaction models	172
15:30	**Coffee break & Poster session**		
	MC in brachytherapy	**Chair: Luc Beaulieu, Université Laval, Canada**	
16:30	Luc Beaulieu, Université Laval, Québec, Canada	Monte Carlo dose calculations in brachytherapy	246
17:00	Rowan Thomson (Carleton University, Canada)	Brachytherapy source and applicator models for diverse Monte Carlo simulations with egs_brachy	87
17:30	Gabriel Famulari (McGill University, Canada)	Consequences of patient heterogeneities for intermediate-energy sources in post-implant assessment of prostate brachytherapy treatment plans.	41
17:45	Konstantinos A. Mountris (LaTIM INSERM, France)	ORACLE: A DVH-based inverse planning system for LDR prostate brachytherapy using MC dosimetry	141
18:00	Marc-André Renaud (McGill University, Montreal, Canada)	MC dose calculation and treatment planning for intensity modulated brachytherapy	215
18:15	**Closing Day 1**		
	Companion programme	**See Conference website for excursions**	

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Monday October 16th		Centro Congressi Federico II, Hall: "Aula A"	Abstract ID
	Parallel MC implementations	**Chair: Philippe Després, Université Laval, Canada**	
14:15	Angelo Schiavi (University of Rome, Italy)	Fred: A new GPU-based fast MC code and its applications in proton beam therapy	161
14:30	Daniel Maneval (Universitè Laval, Canada)	Efficiency improvement in proton dose calculations with an equivalent restricted stopping power formalism	104
14:45	Julien Bert (LaTIM-INSERM, France)	Improved Woodcock tracking on Monte Carlo simulations for medical applications	131
15:00	Xun Jia (University of Texas Southwestern Medical Center, USA)	Recent updates in GPU-based Monte Carlo simulation for radiation therapy	20
15:30	**Coffee break & Poster session**		
	MC in particle therapy	**Chair: Giuseppe Battistoni, INFN Sezione di Milano, Italy**	
16:30	Silvia Muraro (INFN Pisa, Italy)	MC codes and Range Monitoring in Particle Therapy: the case of secondary charged particles	67
16:45	Brad Oborn (Illawarra Cancer Care Centre, Australia)	Monte Carlo modelling and experimental verification of a high resolution silicon diode array performance in proton beams and magnetic fields	63
17:00	Francesco Fracchiolla (APSS Trento, Italy)	Application of a Monte Carlo algorithm in dosimetric verification of pencil beam scanning proton therapy treatments	50
17:15	Pietro Pisciotta (University of Catania, Italy)	Monte Carlo dosimetric study for preclinical small animal hadrontherapy using Geant4 toolkit	35
17:30	Carla Winterhalter (PSI, Switzerland)	Comparison of two Monte Carlo calculation engines for proton pencil beam scanning	34
18:00	Andrea Mairani, Centro Nazionale di Adroterapia Oncologica, Italy	Monte Carlo-based RBE investigations in hadrontherapy	64
18:30	**Closing Day 1**		
	Companion programme	**See Conference website for excursions**	

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Scientific Programme

Tuesday October 17th		Centro Congressi Federico II, Hall: "Aula Magna"	Abstract ID
08:00	Conference Registration		
	MC applications in imaging and nuclear medicine	**Chair: Emiliano Spezi, Cardiff University, UK**	
08:30	Joao Seco, German Cancer Research Center (DKFZ) & University of Heidelberg, Heidelberg, Germany	Monte Carlo study of Helium CT (HeCT) imaging	25
09:00	George Dedes (LMU Munich, Germany)	Fluence modulated proton computed tomography	138
09:15	Natalia Roberts (University of Wollongong, Australia)	Modelling of a novel x-ray source for MR-guided radiotherapy	47
09:30	Elisa Fiorina (University of Torino, Italy)	Monte Carlo simulation tool for online treatment monitoring in hadrontherapy with in-beam PET	143
09:45	Antonio Sarno (University of Naples Federico II, Italy)	Breast Model Validation for Monte Carlo Evaluation of Normalized Glandular Dose Coefficients in Mammography	203
10:00	**Coffee break & Poster session**		
	MC models for radiation sources and beams	**Chair: Grisel Mora, University of Lisbon, Portugal**	
11:00	Jan Seuntjens (McGill University, Canada)	A Monte Carlo perspective on small beam radiation therapy	216
11:30	Charlie Ma (Fox Chase Cencer Center, USA)	Investigation of Conformal Arc therapy utilizing Cobalt 60 beams	89
11:45	Caterina Cuccagna (TERA Foundation/ University of Geneva, Switzerland)	Beam characterization for the TULIP accelerator for protontherapy through Full Monte Carlo simulations	55
12:00	Pietro Pisciotta (University of Catania, Italy)	Characterization of an X-ray source based on laser-target interaction using the Geant4 Monte Carlo toolkit.	135
12:15	Timo Ikonen (Varian Medical Sysems)	Monte Carlo modeling of Varian TrueBeam photon beams with Geant4-based VirtuaLinac and comparison to experiments	142
12:30	Tony Price (University of Birmingham, UK)	Code sharing of MC beam models for advanced radiotherapy.	201
12:45	Francesco Romano (NPL & LNS-INFN, Italy)	Geant4-based Monte Carlo simulations of a transport beam line for multidisciplinary applications of laser-driven proton beams	173
13:00	**Lunch**		
	MC in radiobiology	**Chair: Sébastien Incerti, Université de Bordeaux, France**	
14:00	Carmen Villagrasa, Institut de radioprotection et de sûreté nucléaire, France	Simulation of early radio-induced DNA damages using Geant4-DNA	24
14:30	Konstantinos Chatzipapas (University of Patras, Greece)	Validating Geant4-DNA for Double Strand Brakes (DSB): A preliminary study	75
~~14:45~~	~~Mario A. Bernal (Universidade Estadual de Campinas, Brazil)~~	~~Towards a fully Monte Carlo-based method for RBE estimation.~~	~~158~~
15:00	Francesca Ballarini (University of Pavia & INFN Pavia, Italy)	The BIANCA biophysical model/MC code: calculations of radiation-induced cell damage in view of hadrontherapy treatments	37
~~15:15~~	~~Stewart Mein (DKFZ, Germany)~~	~~Monte Carlo calculation of RBE and in-vitro validation for helium ion-beam therapy~~	~~129~~
15:30	**Coffee break & Poster session**		
	MC for treatment planning and evaluation	**Chair: Antonio Leal Plaza, University of Seville, Spain**	
16:30	Tony Popescu, University of British Columbia, Canada	Modern clinical applications of Monte Carlo simulations for in-vivo patient-specific QA	52
17:00	Joanna Cygler (The Ottawa Hospital, Canada)	Experimental verification of 4D Monte Carlo calculations of dose delivered to a deforming anatomy	15
17:15	Hiroaki Kumada (University of Tsukuba, Japan)	Verification of dose estimation for Monte-Carlo based treatment planning system for boron neutron capture therapy	122
17:30	Erik Traneus (RaySearch Laboratories AB, Sweden)	The Monte Carlo transport code for proton therapy planning dose calculations in the RayStation treatment planning system	221
17:45	Alessia Embiaco (University of Pavia, Italy)	FLUKA validation of MONET code for dose calculation in Hadrontherapy	18
18:00	David Rogers (Carleton University, Canada)	Fun with Monte Carlo: or how I keep learning radiation physics	110
18:30	**Closing Day 2**		
20:00	**Conference dinner**		
Conference Venue	**Centro Congressi, Università di Napoli Federico II, Via Partenope 36, 80121 Napoli, Italy**		
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Tuesday October 17th		Centro Congressi Federico II, Hall: "Aula A"	Abstract ID
08:00	Conference Registration		
	MC applications in IGRT and dosimetry	**Chair: Nick Reynaert, Centre Oscar Lambret, Lille, France**	
08:45	Roumiana Chakarova (Sahlgrenska University Hospital, Sweden)	An automated Monte Carlo QA system for volumetric modulated arc therapy: possibilities and challenges	16
09:00	Simon Kirchhof (DKFZ, Germany)	Monte-Carlo based CT Simulation of Virtual Patient Geometries	213
09:15	Salvatore Berenato (Cardiff University, UK)	Advanced personalised 3D dosimetry based on Monte Carlo simulation for Peptide Receptor Radionuclide Therapy	160
09:30	Bas Raaymakers, University Medical Center Utrecht, Netherlands	The promise of the MRI linac: simultaneous MRI and irradiation	223
10:00	**Coffee break & Poster session**		
	MC applications in micro-dosimetry	**Chair: Philippe Després, Université Laval, Québec, Canada**	
11:15	Gabriel Famulari (McGill University, Canada)	Microdosimetry calculations for monoenergetic electrons using Geant4-DNA combined with a weighted track sampling algorithm	40
11:30	Martin Martinov (Carleton University, Canada)	Heterogeneous multiscale simulations of radiation therapy with gold nanoparticles	68
11:45	Yunzhi Ma (CHU de Quèbec & Universitè Laval, Canada)	OpenDNA: An OpenCL-based GPU Monte Carlo simulation code for Microdosimetry	184
12:00	Nicole Ackerman (Agnes Scott College, USA)	Geant4 Modeling of Targeted Radionuclide Therapy for Brain Metastasis	36
12:30	Floriane Poignant (IPNL, France)	Biophysical modelisation of gold nanoparticles radiosensitizing effects	182
13:00	**Lunch**		
	MC applications in IGRT and dosimetry	**Chair: Jan Seuntjens, McGill University, Canada**	
14:00	Francesco Romano (National Physical Laboratory, UK)	Monte Carlo calculated correction factors for a proton calorimeter in clinical proton beams	169
14:15	Vincent Passal (ICO, Centre René Gauducheau, France)	Monte Carlo calculation of absorbed doses due to imaging sessions delivered to patients during Tomotherapy Image-Guided RadioTherapy courses	178
14:30	Victor Malkov (Carleton University, Canada)	Impact of the true sensitive volume on ion chamber response in magnetic fields	53
14:45	Elisa Jiménez-Ortega (University of Seville & IBIS, Spain)	A robust Monte Carlo Treatment Planning optimization algorithm for dose painting clinical implementation	177
15:00	Hugo Palmans, National Physical Laboratory, UK	Monte Carlo simulations on improved reference dosimetry	227
15:30	**Coffee break & Poster session**		
	MC applications in imaging and nuclear medicine	**Chair: Francesc Salvat, Universitat de Barcelona, Spain**	
16:30	Guillaume Landry (LMU Munich, Germany)	Investigating the physics of a CBCT projection shading correction based on a prior CT	85
16:45	Sodai Tanaka (The University of Tokyo, Japan)	Proton imaging system using collimator with small holes	128
17:00	Janne Vignero (KULeuven, Belgium)	Contribution of coherent and incoherent scatter in grating-based phase-contrast imaging	159
17:15	Stefan Tessarini (ETH Zürich, Switzerland)	Monte Carlo simulations of x-ray grating interferometry based imaging systems	197
17:30	Younes Jourani (Centre Oscar Lambret Lille, France)	Clinical implementation of a Monte Carlo based QA platform for validation of Tomotherapy and Cyberknife treatment plans	222
17:45	Diyun Shu (Nanjing University of Aeronautics and Astronautics, China)	Evaluation of the clinical translation of an optimized Compton Camera during Boron Neutron Capture Therapy for melanoma patients	126
18:00	Rui Qiu (Tsinghua University, China)	Monte Carlo simulation of dose conversion coefficients for radiation exposure from medical diagnostic imaging	100
18:15	**Closing Day 2**		
20:00	**Conference dinner**		
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Scientific Programme

Wednesday October 18th		Centro Congressi Federico II, Hall: "Aula Magna"	Abstract ID
08:00	Conference Registration		
	MC applications in IGRT and dosimetry	**Chair: Hugo Palmans, National Physical Laboratory, UK**	
08:30	Frank Verhaegen, Maastro Clinic, Maastricht, the Netherlands	The use of imaging information in Monte Carlo simulations	12
09:00	Caterina Cuccagna (TERA Foundation/ University of Geneva, Switzerland)	Advances in the FLUKA PET tools	183
09:30	John Dooley (Accuray Incorporated, USA)	Monte Carlo for CyberKnife Radiosurgery with the InCise Multileaf Collimator	145
09:45	Maxime Chauvin (Centre de Recherches en Cancérologie de Toulouse, France)	OpenDose: a Collaborative Effort to Produce Reference Dosimetric Data with Monte Carlo Simulation Software	155
10:00	Susanna Guatelli (University of Wollongong, Australia)	Simulation of Synchrotron-based Microbeam Radiation Therapy using Geant4	21
10:15	**Coffee break & Poster session**		
	MC applications in imaging and nuclear medicine	**Chair: Emiliano Spezi, Cardiff University, UK**	
11:15	Giuseppe, Battistoni (University of Milan, Italy)	The application of the FLUKA Monte Carlo code in medical physics	54
11:45	Alessandra Tomal (Univeridade Estadual de Campinas, Brazil)	Skin Model and its impact on Mean Glandular Dose in Digital Mammography	92
12:15	Michela Esposito (University of Lincoln, UK)	Monte Carlo simulations for imaging in proton therapy	139
12:45	Antonio Sarno (University of Naples Federico II, Italy)	Monte Carlo Evaluation of Glandular Dose Estimates in X-ray Breast Computed Tomography	33
13:00	Arthur Lalonde (Universite de Montreal, Canada)	Accurate extraction of tissues parameters for Monte Carlo simulations using multi-energy CT	113
13:15	**Antonio Leal Plaza, Philippe Després and Paolo Russo**	**Conclusions**	
13:30		**End of Conference**	
	Companion programme	**See Conference website for excursions**	
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Scientific Programme

Monday October 16th, Tuesday October 17th, Wednesday October 18th, Centro Congressi Federico II

Abstract ID

Note: all posters can be set in place from 16th Oct. on, and will be accessible during the whole length of the conference. Only posters of regularly registered presenters may be showed.

Note: One-hour long poster sessions are in coincidence with coffee breaks and poster presenters should be attending at their poster for two poster sessions at least.

Poster title	Primary author	
Elastic scattering in FLUKA code for MONDO experiment: characterisation of the secondary fast and ultrafast neutrons emitted in Particle Therapy	Dr. MARAFINI, Michela	1
MONTE CARLO SIMULATION OF 18 MV MEDICAL LINEAR ACCELERATOR AND PERFORMING NEUTRONIC ANALYSES	Mr. YAZGAN, Cagri	2
Inter-Comparision of the Flux to Dose Conversion Factors Recommended in ICRP-74 and ICRP-116 to Evaluate Radiation Dose Rates	Dr. HOANG, Sy Minh Tuan	3
MONTE CARLO SIMULATION of MEDICAL LINEAR ACCELERATOR for FILTERED and FFF SYSTEMS	Mr. YAZGAN, Cagri	4
Monte Carlo simulation studies on a beam monitor based on MPGD detectors for hadron therapy	Dr. ALTIERI, Palma Rita	5
Determination of X-ray Contamination and Dosimetric Characteristics of Electron Beams produced by LIAC Intraoperative Radiation Therapy Accelerator Using N	Mr. TANHA, Kaveh	6
Monte Carlo Simulation of Radiation Treatment Planning for Pituitary Adenoma	Mr. TANHA, Kaveh	7
Monte Carlo based validation of Compton scattering for 5 MV and 10 MV photon beams using Aluminium and Tungsten targets	Mr. JAGTAP, Amol	10
Monte Carlo simulations for the beam quality factor of a parallel-plate ion-chamber in the presence of magnetic field	Prof. YE, Sung-joon	13
Montecarlo calculation of reaction cross sections for the production of innovative radionuclides	FONTANA, Andrea	14
Optimum Parameter for Photon Radiotherapy Monte Carlo Dose Calculation Method in GPU and Cluster MPI Computation Environment	Mr. BAYHAQI, Yakub Aqib	17
Validation of the Monte Carlo GATE platform for the dosimetry of ocular protontherapy	Dr. LAOUES, Mostafa	19
Design Simulation of a Low Radiation Dose-Producing Device	Prof. UTKU, Haluk	23
Development and validation of the Monte Carlo model of a widely diffused activity meter	Dr. ZAGNI, Federico	26
Implementation of very high energy electron grid therapy: Monte Carlo study of source definition	Dr. DELORME, Rachel	27
Evaluation of silicon and diamond based microdosimetry for boron neutron capture therapy Quality Assurance	Dr. GUATELLI, Susanna	28
Assessment of Neutron Dose Equivalent during Line Scanning Proton Therapy using Dynamic Multi-Leaf Collimator	Mr. KIM, Dae-hyun	29
Facility shielding evaluation using Monte Carlo simulation for proton therapy	Prof. CHO, Sungkoo	30
MONTE CARLO SIMULATIONS OF INTENSITY MODULATED RADIOTHERAPY USING PRIMO SOFTWARE	Dr. ESPOSITO, Alessandro	31
Considering Bragg curve degradation in particle therapy due to lung-equivalent materials in Monte Carlo codes by applying a density modulation	Mr. BAUMANN, Kilian	32
Investigating energy deposition in cellular targets using multiscale tissue models	Ms. OLIVER, Patricia	38
A Geant4-based simulation tool for irradiation of biological samples	Mr. ?EFL, Martin	39
Three-Dimensional Dose Evaluation of the Blood Irradiator using Monte Carlo Simulation	Prof. WU, Jay	42
Database of neutron shielding for a 250-MeV proton accelerator	Mr. LIN, Chun-cheng	43
Evaluation of Skin Doses during Manipulation of Radioactive Sources in Nuclear Medicine: a Comparison between Varskin Code and Geant4 Simulations	Dr. AMATO, Ernesto	44
Development and analysis of the track-LET, dose-LET and RBE calculations with a therapeutical proton and ion beams using Geant4 Monte Carlo code	Dr. PETRINGA, Giada	45
Monte Carlo software for patient dosimetry in interventional radiology	Mr. DESCHLER, Thomas	46
Estimation of backscatter from internal shielding in electron beam therapy using Monte Carlo simulations and Gafchromic film	Mr. SINGH, Sukhvir	48
Monte Carlo simulation of breast screening programmes	Ms. FORASTERO, Cristina	49
Monte Carlo optimization of a neutron beam from 5 MeV ^{9}Be(p,n)^{9}B reaction for clinical BNCT	POSTUMA, Ian	51
Large scale Monte Carlo recalculation/evaluation of AAA lung SBRT cases	Mr. DIAMANT, André	56
Allowing for crystalline structure effects in Geant4	BAGLI, Enrico	57
Extending the Low Energy Particle Track Simulation (LEPTS) code to higher energies	Prof. GARCIA, Gustavo	58
Monte Carlo simulation and experimental validation of glandular dose coefficients in digital breast tomosynthesis	METTIVIER, Giovanni	60

Title	Author	ID	
Validation of Geant4 nuclear reaction models for hadrontherapy and preliminary results with SMF and Blob	MANCINI TERRACCIANO, Carlo	61	
A GEANT4 Tomotherapy model to evaluate a patient-specific dose QA program	Dr. ESPOSITO, Alessandro	62	
Dosimetry for treatment of retinoblastoma with external photon beams	Dr. MAYORGA, Paola A.	65	
Monte Carlo and Analytical Validation of a Software Breast Phantom for X-ray Mammography Imaging	Dr. BLIZNAKOVA, Kristina	66	
Validation of XRMC Monte Carlo toolkit for external dosimetry applied to mammography	Dr. HOFF, Gabriela	69	
Investigating variable RBE in particle mini-beam radiation fields using Geant4 and the Microdosimetric Kinetic Model	Ms. DEBROT, Emily	70	
CONFIGURATION OF VOLUMETRIC ARC RADIOTHERAPY SIMULATIONS USING PRIMO SOFTWARE: A FEASIBILITY STUDY	Mr. OLIVEIRA, Jorge	71	
Monte Carlo simulations as a tool for guidance in planning pelvic Intra Operative Radiation Therapy	Dr. ESPOSITO, Alessandro	72	
Design of a personal dosimeter for estimating the effective dose of medical staff when wearing radioprotective garments using Monte Carlo simulations	Mrs. SALDARRIAGA VARGAS, Clarita	73	
~~A Monte Carlo approach to the activation assessment of a PET Cyclotron bunker~~	~~Dr. VICHI, Sara~~	~~74~~	
Monte Carlo simulation of the Elekta VersaHD linac with Elekta's Stereotactic Conical Collimation System	Mr. BORZOV, Igor	77	
Time-resolved Monte Carlo simulations of dose delivered to a dynamic thorax phantom verified using scintillator dosimetry	Mr. SIBOLT, Patrik	78	
Virtual source model for stereotactic radiosurgery with a dynamic micro-multileaf collimator.	Dr. GONZÁLEZ, Wilfredo	79	
Charged particles grid and minibeam radiation therapy: Monte Carlo dosimetry evaluations.	Dr. GONZÁLEZ, Wilfredo	80	
Monte Carlo simulations for boron neutron capture therapy to assessment absorbed dose of pancreas cancers	Prof. KRSTIC, Dragana	81	
Hybrid Monte Carlo for low-energy X-rays intraoperative radiation therapy dose calculation	Ms. IBÁÑEZ, Paula	83	
Development of the 2-dimensional MLC movement technique to improve radiation treatment quality	Mr. PARK, Hyojun	84	
Accounting for radiation-induced indirect damage on DNA with the GEANT4 code	Mrs. DE LA FUENTE ROSALES, Liset	90	
Image acquisition and material differentiation for Dual Energy Computed Tomography by Monte Carlo simulations	Mrs. ROBAYO, Lorena	91	
~~Development of a methodology for formulating radiologically equivalent materials to human tissues~~	~~Dr. MARIANO, Leandro~~	~~94~~	
Feasibility study of in-vivo dose verification by analyzing time-structure of the prompt gammas in cancer treatment using proton beam.	Mr. SHIN, Wook-geun	96	
A Monte Carlo study of resolving the radiation dose through the detection of Cerenkov radiation in Boron Neutron Capture Therapy	Mr. SHU, Diyun	97	
Measurement of the induced neutron ambient dose equivalent during proton therapy in scanning mode	Dr. LEE, Chaeyeong	98	
~~Dosimetric impact of Statistical Uncertainty on Monte Carlo dose calculation in Monaco TPS volumetric modulated arc therapy for prostate cancer~~	~~Mr. P, Mohandass~~	~~99~~	
Comparison of dose calculation between AAA algorithm and Monte Carlo calculation for prostate cancer	Mr. AITIDIR, Belaid	101	
~~Optimization of Megavolt unflattened photon beams: A Monte Carlo study~~	~~Mr. MOHAMMED, Maged~~	~~102~~	
~~GAMOS: Implementation of a Graphical User Interface for Dosimetry Calculation in Radiotherapy~~	~~Mr. ALAOUI ABDALAOUI SLIMANI, Faiçal~~	~~103~~	
~~Monte Carlo Based Evaluation of Spherical Applicators for Low-kV IORT of Breast Cancer~~	~~Dr. BAGHANI, Hamid Reza~~	~~105~~	
Performance Evaluation of Two Dedicated Radioprotective Disks in Breast Intraoperative Electron Radiotherapy	Dr. BAGHANI, Hamid Reza	106	
~~Dosimetric Comparison of Electron Beam from LIAC TM Intraoperative and ONCOR TM Conventional Accelerator: A Monte Carlo Study~~	~~Dr. BAGHANI, Hamid Reza~~	~~107~~	
Study on conformal proton therapy using multileaf-collimated beams without tumor-specific range compensators via flat dose-layer stacking	Dr. SHAO, Wencheng	108	
~~A MONTE CARLO MODEL OF THE ELEVATED TRACE ELEMENT CONCENTRATION FOR DIAGNOSIS OF THE BREAST CANCER~~	~~Dr. OH, Kyuhak~~	~~109~~	
Monte Carlo modeling of Orthovoltage treatment fields	Prof. SUMINI, Marco Sumini	111	
~~Validation of Statistical Uncertainty on Monte Carlo dose calculation in two different Monaco TPS versions~~	~~Mr. P, Mohandass~~	~~112~~	
The impact of dual-energy CT tissue segmentation for low-dose rate prostate brachytherapy Monte Carlo dose calculations	Mrs. REMY, Charlotte	114	
A Monte Carlo-based eigenspectrum decomposition technique for computed tomography	Mr. SIMARD, Mikael	115	
Comparison of beam output factors in MCNP6 and Geant4 based IAEA phase-space files.	Mrs. SANCHEZ-ESTRADA, Raquel Ivon	116	
An MCNP6 suite of visualization tools for computed tomography data	Mr. BETANCOURT, Enrique	117	
Internal Dosimetry of 68Ga-DOTATATE Using Monte Carlo GATE simulation For XCAT Phantom	Ms. MOKRI, Mersede	118	
~~Effects of heterogeneities in dose distributions: Monte Carlo simulation vs dose calculation algorithms~~	~~Dr. REIS, Cristiano~~	~~119~~	
Performance evaluation of the Siemens Biograph6 PET/CT Imaging system using GATE Monte Carlo simulation	Ms. JOZI, Hanieh Sadat	120	
Planning of mixed electron-photon radiotherapy using the column generation method	Mr. RENAUD, Marc-andre	123	
Application expansion of the Monte-Carlo based treatment planning system for BNCT to particle radiotherapy and X-ray therapy	Prof. KUMADA, Hiroaki	124	

Title	Author	#	
Fundamental Study for Practical Application of Radiotherapy Treatment Planning System Capable of Evaluating Neutron Dose Generated by Various Radiothera	Dr. TAKADA, Kenta	125	
Energy response correction for EPID dosimetry in photon radiation therapy	Dr. TAKEI, Hideyuki	130	
Improvements in the radiographic image quality using an anti-scatter grid prototype. Monte Carlo approach.	Mrs. INMACULADA, Jerez-sainz	132	
Fast and accurate 3D dose distribution computations using artificial neural networks	Dr. LENI, Pierre-emmanuel	133	
Kompeito-Shot System: Evaluation of the systematic error caused by beam incident angle using Monte Carlo simulation	Mr. TSUNEDA, Masato	136	
Fixed Forced Detection for fast SPECT Monte-Carlo simulation	Dr. CAJGFINGER, Thomas	137	
A study of tissue inhomogeneity correction in a commercial treatment planning system for stereotactic radiosurgery	Mr. MORALES, Johnny	140	
An equipment-specific Geant4 model for the Elekta Agility collimator	Ms. MARTINS, Juliana Cristina	144	
Application of Monte Carlo techniques for airborne radioactivity monitoring systems calibration	Dr. SARNELLI, Anna	146	
CloudMC, a cloud-based solution for Monte Carlo radiotherapy calculations	Mr. MIRAS, Hector	147	
Calculation Backscatter factors for pediatric diagnostic radiology using Monte Carlo Methods	Mr. MENDES, Hitalo Rodrigues	149	
Evaluating the performance of different fluence to dose conversion factor data libraries in Monte Carlo Based photon dosimetry	Ms. NASROLLAHI, Shiva	150	
Monte Carlo MCNP calculation of absorbed dose for 90Y	Mrs. JEREMIC, Marija	151	
Modeling of a New Multihole Rod Collimator Low Energy High Resolution using Monte Carlo Simulation	Ms. MAT JUNOS, Siti Aisah	152	
Monte Carlo Simulation Study of Orthogonal Ray Imaging for Monitoring Head Radiotherapy	Mr. SIMÕES, Hugo	153	
Evolutionary Algorithms for Monte Carlo Treatment Planning	Mrs. KOZLOWSKA, Wioletta	154	
Optimization of SPECT Collimators Using Monte Carlo Approach	Dr. XIANLING, Dong	156	
Development of Geant4-based Patient-Specific QA System of Gamma Knife Treatment Plans using Automated DICOM-RT Interface	Mr. CHOI, Hyun Joon	157	
Geant4 Monte Carlo simulations of prompt gamma and neutron yield during proton irradiation of homogeneous and inhomogeneous phantoms	Dr. GUTIERREZ, Andrea	163	
Detector MC study for measurement of nuclear reaction cross sections relevant in particle therapy	VALLE, Serena Marta	164	
Assessment of factors contributing to detector response in high energy photon fields	Ms. WEGENER, Sonja	166	
Assessing the CTDIVOL and SSDE from dose profiles in cylindrical phantoms of water equivalent materials	Mr. LOPEZ, Alejandro	167	
Monte Carlo assessment of the potential of fiber-coupled organic plastic scintillator dosimetry for direct determination of beam quality correction factors in MV pho	Mr. VALDES SANTURIO, Grichar	168	
Planar images on a new hybrid gamma detector MRI compatible.	Prof. AGULLES-PEDROS, Luis	170	
A Monte Carlo study to reduce range uncertainty in proton beam therapy via prompt gamma-ray detection	Ms. PANAINO, Costanza	171	
A EBT3 film calibration approach for the validation of a Monte Carlo internal dosimetry framework	Mr. FREZZA, Andrea	175	
On the use of Monte Carlo techniques to improve particle imaging noise filtering and spatial resolution	Mr. COLLINS-FEKETE, Charles-antoine	180	
Individual Computational Human Phantom Made of Indonesian Female Body for Internal Radiation Dosimetry Applications	Ms. PINASTI, Sita Gandes	181	
Monte Carlo Simulation of ?out-of-field? dose distributions in a pediatric phantom in External Radiotherapy - comparison with Gafchromic film measurements	Mr. GHAREEB, Firass	185	
OpenTRAK: An OpenCL-based GPU Monte Carlo simulation Code for Brachytherapy dose calculation	Dr. MA, Yunzhi	186	
Validation of Dual Energy CT Atomic Composition Extraction using Proton Monte Carlo	Dr. O'REILLY, Shannon	187	
Monte Carlo Simulation of ?out-of-field? dose distributions in a pediatric phantom in External Radiotherapy - couch top impact	Mr. GHAREEB, Firass	188	
Uncertainty estimation of MC simulated mammography spectra	Mr. FERNANDES, Victor	189	
Parametric evaluation of CT dose index (CTDIW) in head phantom using Gate Monte Carlo code	Mr. MASOUDI, Masoud	190	
Comparing the physical characteristics of intraoperative electron beam from circular and beam shaper applicators	Mr. HEIDARLOO, Nematollah	191	
On the accuracy of TG-43 algorithm in dosimetry of breast accuboost brachytherapy	Ms. PAPI, Maryam	192	
Evaluation of doses in healthy organs due to radiotherapy treatment for lung cancer, through computational modeling.	Dr. THALHOFER, Jardel	193	
Validation of GPUMCD for X-ray medical imaging	Ms. SAUCIER, Marie Annie	194	
A fast Cone-Beam CT scatter correction method with Monte Carlo simulation using GPUMCD	Ms. SAUCIER, Marie Annie	195	
Relation between dose average linear energy transfer and dose-mean lineal energy calculated for proton therapy beams off axis: A study with the Geant4 toolkit.	Ms. BARATTO ROLDÁN, Anna	196	
Monte Carlo and Analytical Simulations of Dose Distribution in Synchrotron Radiation Rotational Radiotherapy of Breast Cancer: an Experimental Phantom Study	DI LILLO, Francesca	198	
Monte Carlo Evaluation of Normalized Glandular Dose Coefficients in Mammography	SARNO, Antonio	199	

Evaluation of key parameters for non-small cell lung cancer treatments using Geant4 as benchmark dose calculation algorithm	Mr. PERALES MOLINA, Álvaro	200	
Monte Carlo Evaluation of Dose Perturbations in Intravascular Brachytherapy	Mr. DECUNHA, Joseph	205	
Comparison of constant RBE dose calculation and a novel biological dose calculation model, photon iso-effective dose formalism, for predicting complication probabilities in boron neutron capture therapy (BNCT) of head and neck cancer patients	Dr. KOIVUNORO, Hanna	206	
Study of sensibility for a new gamma-MRI compatible detector using Monte Carlo simulations	Ms. ABRIL, Andrea	208	
SMALL FIELD OUTPUT FACTORS FOR A LINAC WITH CIRCULAR CONES USING DIFFERENT DOSIMETERS AND MONTE CARLO SIMULATION	Dr. FIANDRA, Christian	209	
Using Monte Carlo simulation as an experimental tool for training of medical physicists in a diagnostic radiological physics residency program	Prof. FREITAS, Marcelo	210	
A new tissue-equivalent material applied to radiotherapy treatment: a feasibilty study	Dr. ALJAMAL, Mohammad	211	
Charged particle fluence calculations with EGSnrc	Dr. MAINEGRA-HING, Ernesto	218	
Evaluating the effect of dental implants in the treatment of head and neck cancer using Monte Carlo dose calculation	Dr. STATHAKIS, Sotirios	220	
Assessment of the glandular dose in scintimammography using Monte Carlo simulation and Finite element analysis	Dr. LIU, Yan-lin	224	
Development of adjustable model breast using mammographic information for Monte Carlo simulation in nuclear medicine --- impact on dosimetry	Dr. SHANG-LUNG, Dong	225	
Comparison between Monte Carlo Simulations and Film Dosimetry for a Novel Lip Brachytherapy Applicator Development	Dr. JON, Feldman	226	
Experimental and Monte Carlo investigation of the depth-dependent fluence perturbation of parallel-plate chambers in clinical electron beams	Mr. VON VOIGTS-RHETZ, Philip	230	
Monte Carlo based investigation of the beam quality correction factor kQ depending on the chamber's level of detail	Ms. PRETZSCH, Tabea	231	
Study and evaluation of beam-modifying wedge filters of the siemens oncor expression linear accelerator using mcnp	Mr. MARQUES, José	233	
Monte Carlo study on out-of-field exposure in carbon-ion radiotherapy with passive beam: Organ doses in prostate cancer treatment	Dr. YONAI, Shunsuke	234	
Monte Carlo study on the feasibility of mini-beam radiation therapy with ion beams	Prof. MATSUFUJI, Naruhiro	236	
Study to evaluate the impact of statistical uncertainty for lung cancer using flattening filter free 6MV photon Beam on Monte Carlo dose calculation in volumetric-modulated arc therapy	Mr. P, Mohandass	237	
Study on the relationship between exposure dose and CT dose index for various CT scanners using Monte Carlo simulation and human voxel phantoms	Dr. KOBA, Yusuke	238	
Proton-nucleus interactions in non-water materials for proton radiotherapy treatment planning	Dr. INANIWA, Taku	239	
A probabilistic-based nuclear reaction model for Monte Carlo ion transport in particle therapy	Ms. GONZALEZ TORRES, Maria Jose	240	
Geant4 simulation studies of secondary particles emission in hadron therapy treatments	Dr. TAMBORINI, Aurora	241	
Simulation of a Fast Timing Micro-Pattern Gaseous Detector for PET-TOF and future accelerators	Dr. RADOGNA, Raffaella	242	
Guiding the design of a blood gamma counter with Monte Carlo simulations	Mr. ESPAGNET, Romain	243	
Investigation of Monte Carlo calculations for reference dosimetry regarding new ICRU-90 recommendations	Mr. CZARNECKI, Damian	244	
Patient specific scatter reduction in SIRT gamma camera images	Mr. Milad Mesri	247	
Conference Venue	**Centro Congressi, Università di Napoli Federico II, Via Parten** **https://www.google.it/maps/place/Centro+Congressi+Federico+II/@40.830**		

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