

MCMA2017 - International Conference on Monte Carlo Techniques for Medical Applications - 15-18 October 2017, Napoli, Italy**Preliminary 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 | | |
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Preliminary Scientific Programme

| Monday October 16th | | Centro Congressi Federico II, Hall: "Aula Magna" | Abstract ID |
|----------------------------|---|---|--------------------|
| 08:00 | Conference Registration | | |
| 08:30 | Antonio Leal Plaza, Philippe Després and Paolo Russo | Conference opening | |
| 08:45 | Alberto Del Guerra, University of Pisa & INFN, Italy | The dawn of PET Monte Carlo: a personal experience | 232 |
| | Update on MC code/physics I | Chair: Frank Verhaegen, Maastric 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 (Carleton University, 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 Málaga) | 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 | |
| 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 | | |
| 19:30-21:30 | Social program | TBA | |
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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 (Université Laval, Canada) | Efficiency improvement in proton dose calculations with an equivalent restricted stopping power formalism | | 104 |
| 14:45 | Abdeslam Behlouli (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 | Carla Winterhalter (PSI, Switzerland) | Comparison of two Monte Carlo calculation engines for proton pencil beam scanning | | 34 |
| 17:00 | Silvia Muraro (INFN Pisa, Italy) | MC codes and Range Monitoring in Particle Therapy: the case of secondary charged particles | | 67 |
| 17:15 | 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 |
| 17:30 | Francesco Fracchiolla (APSS Trento, Italy) | Application of a Monte Carlo algorithm in dosimetric verification of pencil beam scanning proton therapy treatments | | 50 |
| 17:45 | Pietro Pisciotta (University of Catania, Italy) | Monte Carlo dosimetric study for preclinical small animal hadrontherapy using Geant4 toolkit | | 35 |
| 18:00 | Andrea Mairani, Centro Nazionale di Adroterapia Oncologica, Italy | Monte Carlo-based RBE investigations in hadrontherapy | | 64 |
| 18:30 | Closing Day 1 | | | |
| 19:30-21:30 | Social program | TBA | | |
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| Tuesday October 17th | | Centro Congressi Federico II, Hall: "Aula Magna" | Abstract ID |
|--|---|---|-------------|
| 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 Cancer 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 Systems) | Monte Carlo modeling of Varian TrueBeam photon beams with Geant4-based VirtualLinac 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 | | | |
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| Tuesday October 17th | | Centro Congressi Federico II, Hall: "Aula A" | Abstract ID |
|-----------------------------|---|--|--------------------|
| | MC applications in IGRT and dosimetry | Chair: Nick Reynaert, Centre Oscar Lambret, Lille, France | |
| 08:30 | Christian Fiandra (University of Torino, Italy) | Small field output factors for a linac with circular cones using different dosimeters and Monte Carlo simulation | 209 |
| 08:45 | Marie Annie Saucier (Universite Laval, Canada) | A fast Cone-Beam CT scatter correction method with Monte Carlo simulation using GPUMCD | 195 |
| 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 | Nicole Ackerman (Agnes Scott College, USA) | Geant4 Modeling of Targeted Radionuclide Therapy for Brain Metastasis | 36 |
| 12:15 | Floriane Poignant (IPNL, France) | Biophysical modelisation of gold nanoparticles radiosensitizing effects | 182 |
| 12:45 | Yunzhi Ma (CHU de Québec & Université Laval, Canada) | OpenDNA: An OpenCL-based GPU Monte Carlo simulation code for Microdosimetry | 184 |
| 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 Univeristy 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 | Antonio Sarno (University of Naples Federico II, Italy) | Monte Carlo Evaluation of Glandular Dose Estimates in X-ray Breast Computed Tomography | 33 |
| 17:45 | Chunhui Gong (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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|---|---|---|-----|
| | MC applications in IGRT and dosimetry | Chair: Hugo Palmans, National Physical Laboratory, UK | |
| 08:30 | Frank Verhaegen, Maastricht 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 |
| 09:15 | 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 | |
| 11:00 | Giuseppe Battistoni (University of Milan, Italy) | The application of the FLUKA Monte Carlo code in medical physics | 54 |
| 11:30 | Roumiana Chakarova (Sahlgrenska University Hospital, Sweden) | An automated Monte Carlo QA system for volumetric modulated arc therapy: possibilities and challenges | 16 |
| 12:00 | Alessandra Tomal (Univeridade Estadual de Campinas, Brazil) | Skin Model and its impact on Mean Glandular Dose in Digital Mammography | 92 |
| 12:30 | Michela Esposito (University of Lincoln, UK) | Monte Carlo simulations for imaging in proton therapy | 139 |
| 12:45 | Antoine Wagner (Centre Oscar Lambret Lille, France) | Clinical implementation of a Monte Carlo based QA platform for validation of Tomotherapy and Cyberknife treatment plans | 222 |
| 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 | |
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| Monday October 16th, Tuesday October 17th, Wednesday October 18th, Centro Congressi Federico II | Primary author | Abstract ID |
|--|----------------------------|--------------------|
| Poster title | | |
| 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 Monte Carlo Simulation | 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 $^{9}\text{Be}(p,n)^{9}\text{B}$ 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 |
| 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 |

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| Validation of XRCM 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 ABDALAOU 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 |
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