

MCNEG2009 – Draft Programme

Medical (General)

The role of imaging in Monte Carlo treatment planning

Frank Verhaegen (INVITED SPEAKER)

The influence of anthropomorphic phantoms on Monte Carlo calculations of normalised organ doses from computed tomography on adults

Jan T M Jansen, P C Shrimpton and M Zankl

Dose distribution of electron beams in inhomogeneous phantoms by MCNP calculation and its verification with experimental measurements

Hassan Ali Nedaie, M A Mosleh Shirazi and Z Tizmaghz

A GEANT4 tool for studying dose distributions in linac bunkers using Monte Carlo modelling

Andrew Bird and M G Cawley

Application of MCNP5 to improve brachytherapy treatment planning system

José Ródenas, I Gerardy, M van Dycke and S Gallardo

Implementing oblique incident radiation in the BEAMnrc Monte Carlo code system

Emiliano Spezi and P. Downes

Simulating and analysing an IMRT treatment plan with the RTGrid system

Patrick Downes, G Yaikhom, J P Giddy, E Spezi, D G Lewis and D W Walker

Monte Carlo Modelling of the Siemens Virtual Wedge

Patrick Downes, M Foley, A Shearer, M Moore and W van der Putten

McGill Monte Carlo treatment planning (MMCTP) research platform for dose comparison studies

Elaine Conneely

Monte Carlo portal dosimetry as the gold standard for IMRT verification

Rebecca Cufflin, E Spezi, A E Millin and D G Lewis

Monte Carlo modelling for the new NPL clinical linac

Mark Bailey and D Shipley

X-ray microbeam radiotherapy treatment planning with EGS5

Richard Hugtenburg and E Bräuer-Krisch

The effect of energy on gamma camera spatial resolution

Maria Holstensson, M Partridge, S E Buckley and G D Flux

Medical (protons)

Relative effectiveness of GafChromic EBT and MD-V2-55 film for low energy proton dosimetry, with help from FLUKA and MCNPX

Daniel Kirby, S Green, R Hugtenburg, H Palmans and C Wojnecki

Graphite-to-water dose conversion for clinical proton dosimetry

Leena Al-Sulaiti, D Shipley, R Thomas, A Kacperek and H Palmans

Wall perturbation for ionisation chambers in proton beams

Hugo Palmans

PRONTO - A speed optimized MC code for scanning and passive proton therapy planning dose calculations

Erik Traneus

Radiation Protection

The ICRP/ICRU adult reference computational phantoms

Maria Zankl (INVITED SPEAKER)

Monte Carlo analysis of possible cell dose enhancement effects by uranium microparticles

Jonathan Eakins

Does the photoelectric effect cause ingested/inhaled high Z materials to significantly enhance the detriment associated with natural background radiation?

Rick Tanner, J Eakins, J Jansen and M Zankl

Mathematical calibrations for measurements of radionuclides in people following a radiation emergency.

Arron Shutt

Characterisation of the scattered radiation field around an x-ray tube

Lara Struelens

Skin-relevant Dose Calculations with MCNP Concerning Electrons

Bernd Heide, Chr Blunck, F Becker and M Urban

Neutronics/Fusion

Recent experiences with CAD to MCNP and Attila conversion for fusion related transport models

Lee Packer, R Pampin, S Zheng, A Davis and W Arter

Comparison of global variance reduction methods in MCNP for the ITER fusion experiment reference model

Raul Pampin, A Davis, S Zheng and L W Packer

The MCR2S method for calculation of high-resolution decay gamma source distributions for MCNP

Andrew Davis and R Pampin

Optimization of the Shielding Capability of the ITER LIDAR Diagnostic system

Shanliang Zheng, R Pampin and A Davis

Miscellaneous

Work Programme of EURADOS Working Group 6: Computational Dosimetry

Rick Tanner, G Gualdrini, S Agosteo, D Broggio, L De Carlan, E Gargioni, J-M Gomez-Roz, J Henniger, C Huet, I Kodeli, R Price, S Rollet, L Struelens, H Vincke, B Wiegel and M Zankl

Monte Carlo simulations of x-ray transport in laser-hohlraum experiments

Gavin Crow, M Stevenson, S Hughes, D Parfitt, R Smedley-Stephenson and A Barlow

Criticality calculations of an oxidation furnace under flooded conditions

Simon Merton, P Hollister, B Timmermans, R Jones and V Lewis

Axial Energy Distribution in Disc-shaped Tantalum and Aluminium Bremsstrahlung Conversion Targets (Poster)

Trevor Williams