

**14th Biennial Topical Meeting of the ANS  
Radiation Protection and Shielding Division  
April 3-6, 2006**

<i>Room 1</i>	<b>Computational Medical Physics Working Group I - Chaired by Wayne Newhauser</b> <i>Monday April 3, 2006</i>	
9:15 AM	X. George Xu	Invited Presentation - Computational Medical Physics: What Roles Can Nuclear Engineers Play?
10:00 AM	Megan Satterfield, Dingkang Zhang, Farzad Rahnema, Tim Fox	Extension of the Coarse Mesh Transport Method (COMET) to Medical Physics
10:30 AM	R. A. Lillie, D. E. Peplow, M. L. Williams, B. L. Kirk, M. P. Langer, T. L. Nichols, and Y. Y. Azmy	Photon Beam Transport in a Voxelized Human Phantom Model: Discrete Ordinates vs Monte Carlo
11:00 AM	J. D. Fontenot and W. D. Newhauser	Dose per Monitor Unit Determination for Proton Therapy Treatment Portals with and without the Range Compensator
<i>Room 1</i>	<b>Computational Medical Physics Working Group II - Chaired by Eduardo Farfan</b> <i>Monday April 3, 2006</i>	
1:00 PM	X. George Xu, Justin Hanlon, Matthew Oakley	A Feasibility Study to Fabricate a Lung Phantom from Medical Images and Computer Aided Manufacturing
1:30 PM	Ahmad Al-Basheer, Monica Ghita, Glenn Sjoden, and Benoit Dionne	Critical Discretization Issues in a 3-D Discrete Ordinates Medical Physics Simulation Benchmarked with Monte Carlo
2:00 PM	Monica Ghita, Ahmad Al-Basheer, Glenn Sjoden, Jim Baciak, Manuel Arreola, and Carly Williams	Validation of DXS: A Diagnostic X-Ray Source Generator for X-ray Transport Simulations
2:30 PM	Robert L. Metzger and Kenneth A. Van Riper	Attenuation Coefficients for Layered Ceiling and Floor Shields in PET/CT Clinics
3:00 PM	R.L. Moss, G.G. Daquino, G. Gambarini, S. Gay, A.V. Nievaart	Dosimetry studies on an irradiation facility for the extra-corporal treatment of liver cancer by BNCT at the HFR Petten
3:30 PM	Kristien Smans, Hilde Bosmans, Mieke Cannie, Steven Dymarkowski, Filip Vanhavere	Creation of a voxel phantom
<i>Room 1</i>	<b>Computational Medical Physics Working Group III - Chaired by Bernadette Kirk</b> <i>Tuesday April 4, 2006</i>	
1:00 PM	Nicholas Koch. and Wayne Newhauser,	Monte Carlo Simulations of an Ocular Nozzle to Determine Dose Distributions and Output
1:30 PM	Wayne Newhauser, Annelise Giebeler, Nick Koch, Jonas Fontenot, Yuanshui Zheng, and Bernadette Kirk	Review of Monte Carlo Applications in Proton Cancer Therapy
2:00 PM	Wayne Newhauser, Jerimy Polf, Jonas Fontenot, Yuanshui Zheng, Nick Koch, Uwe Titt, and Radhe Mohan	Monte Carlo Model of a Passively Scattered Proton Therapy System
2:30	Yuanshui Zheng, Wayne Newhauser, Jonas	Development of a Code System to Automatically

PM	Fontenot, Nickolas Koch	Generate MCNPX Input Files for Proton Therapy Simulations
3:00 PM	Lara Struelens, Filip Vanhavere	Comparison of the Determination of Organ Doses using the Rando Alderson Phantom and Monte Carlo Calculations
3:30 PM	Lara Struelens, Filip Vanhavere, Hilde Bosmans	Calculation of Conversion Coefficients for the Determination of Effective Dose in Vascular Radiology.