

Program of SSD Summer School

Concepts and Trends in Medical Radiation Dosimetry
Centre for Medical Radiation Physics, University of Wollongong
School Location: Innovation Campus, UoW, Wollongong
Wednesday 15th –Saturday 18th, September 2010

Wednesday, September 15

- 08:00-08:45 Registration, Arrival Tea and Coffee
- 08:45-09:00 Introduction (Anatoly Rosenfeld, Francesco d'Errico, Tomas Kron, Marko Moscovitch)
- 09:00-10:00 *Adrie Bos, Delft University, Holland*
Fundamentals of Radiation Dosimetry
- 10:00-10:30 Morning tea
- 10:30-11:30 *Tomas Kron, Peter McCallum Cancer Centre, Australia*
Concept of Medical Radiation Dosimetry: Needs and Concepts
- 11:30-12:30 *Richard Smart, St George Hospital, Australia*
Dosimetry of Radiopharmaceuticals for Diagnostic and Therapeutic Nuclear Medicine
- 12:30-13:30 Lunch
- 13:30-14:30 *Anatoly Rosenfeld, CMRP UoW, Australia*
Advanced Semiconductor Dosimetry in Radiation Therapy
- 14:30-15:30 *Clive Baldock, University of Sydney, Australia*
GEL Dosimetry and Its Application in Radiation Therapy
- 15:30-16:00 Afternoon tea and discussion with lecturers
- 16:00-17:00 *Matthew Williams, ICCC, Australia*
Peter Metcalfe, CMRP UoW, Australia
Radiochromic Film Dosimetry and its Applications in Radiotherapy
- 17:00 Discussion with lecturers (refreshments provided)

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Thursday, September 16

- 08:00-08:30 Arrival Tea and Coffee
- 08:30-09:30 *Claus Andersen, Risoe, Denmark*
Fiber-coupled Luminescent Dosimetry in Therapeutic and Diagnostic Radiology
- 09:30-10:30 *Alex Romanyukha, NAVAL Dosimetry Centre, USA*
EPR Retrospective Dosimetry
- 10:30-11:00 Morning tea and discussion with lecturers
- 11:00-12:00 *TBA*
Advanced Brachytherapy Dosimetry
- 12:00-13:00 *Peter Greer, University of Newcastle and Calver Mater Hospital*
EPID Dosimetry
- 13:00-14:00 Lunch
- 14:00-14:45 *Vladimir Feygelman, H.Lee Moffitt Cancer Centre and Research Institute, USA*
Dose Verification in IMRT and VMAT
- 14:45-15:30 *Philip Vial, Liverpool Hospital, Australia*
In vivo dosimetry for IMRT
- 15:30-15:45 Afternoon tea and discussion with lecturers
- 15:45-16:45 *David A. Schauer, National Council on Radiation Protection and Measurements, USA*
Dosimetry in Medical Exposures – Trends and Challenges Procedures

18:30 Summer School Dinner
(Harbour Front Restaurant) <http://www.harbourfront.com.au/>

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Friday, September 17

- 08:00-08:30 Arrival Tea and Coffee
- 08:30-09:30 *Yigal Horowitz, Ben Gurion University, Israel (TLD 1)*
Thermoluminescence Dose Response: Experiments, Data Analysis
and Theoretical
- 09:30-10:30 *Marko Moscovitch, Georgetown University, USA*
Dose Re-evaluation in Thermoluminescence Dosimetry
- 10:30-11:00 Morning tea and discussion with lecturers
- 11:00-12:00 *Larry De Werd, Wisconsin University, USA*
Dosimetric Characteristics of Brachytherapy Sources
- 12:00-13:00 *Takayoshi Yamamoto, Osaka University, Japan*
RPL Dosimetry: Principle and Applications
- 13:00-14:00 Lunch
- 14:00-15:30 *Luis Benevides, NAVAL Dosimetry Centre, USA*
Dosimetry in Mammography
- 15:30-15:45 Afternoon tea and discussion with lecturers
- 15:45-16:45 *Reinhard Schulte, LLUMC, USA*
Nanodosimetry: Principle and Current Status

(Free Time: Explore Wollongong's pacific beach and fine dining)

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Saturday, September 18

- 08:00-08:30 Arrival Tea and Coffee
- 08:30-09:30 *Francesco d'Errico, Yale University, USA*
Neutron Dosimetry: Current Status and Progress
- 09:30-10:30 *Marlies Luszik-Bhadra, PTB, Germany*
State of the Art in Electronic Neutron Dosemeters
- 10:30-11:00 Morning tea and discussion with lecturers
- 11:00-11:45 *Mark Akselrod, Landauer, USA*
Fundamentals of materials, techniques and instrumentation for OSL and FNTD dosimetry
- 11:45-12:45 *Susanna Guatelli and Dean Cutajar, CMRP, UoW, Australia*
Simulation dosimetry: Monte Carlo codes overview theory
- 12:45-13:45 *Susanna Guatelli and Dean Cutajar, CMRP, UoW, Australia*
Simulation dosimetry: GEANT 4 Monte Carlo code: applications
(consulting on GEANT 4 by CMRP staff will be available during the Summer School on individual and small group basis)
- 13:45-14:00 Wrap Up and future plans
Anatoly Rosenfeld, Francesco d'Errico, Tomas Kron, Marko Moscovitch

4th SSD Summer School lectures will be published by American Institute of Physics (AIP) as a separate monograph and will be available as a hard copy as well as a soft copy downloadable from internet.