**MPU SEMINAR SERIES : 2015-2016**

**Fall 2015-2016**

**August 28: Ivan Buzurovic** (Medical Physics/Biophysics, Harvard Medical School, Boston, MA)

*Innovative brachytherapy*

**September 11: Ryan Flynn** (Medical Physics, U Iowa, Iowa City, IA)

*Rotating shield brachytherapy for prostate and cervical cancer*

**September 18: Avishek Chatterjee** (Nuclear Physics, U Geneva, Geneva, Switzerland)

*Searching for new physics using the ATLAS detector at the Large Hadron Collider*

**September 24-25: Various speakers**

*MPRTN-NSERC CREATE Workshop, RI-MUHC*

**October 09 : Richard Richardson** (Canadian Nuclear Laboratories, Deep River, ON)

*Are ionizing radiation effects more mitochondria-centric than nucleus-centric?*

**October 16 : Andrea Armstrong** (Radioisotope Development, McMaster U, Hamilton, ON)

*T1 Mapping: The Up & Down (& Up) Story of an Old Technique*

**October 23 : Ernesto Mainegra-Hing** (Ionizing Radiation Standards, NRCC, Ottawa, ON)

*Comparison between EGSnrc, GEANT4, MCNP and Penelope for photon beams*

**November 06 : Omar Chebli** (Kirontech, Helsinki, Finland)

*Applications of machine learning in healthcare data*

**November 09 : B. Gino Fallone** (Medical Physics, Cross Cancer Institute, Edmonton, AB)

*Integrated MRI – Linear accelerator*

**November 13 : Francisco Nunez** (Philips Radiation Oncology Systems, Madison, WI)

*Proton treatments in radiotherapy*

**November 20 : Gassan Massarweh** (McConnell Brain Imaging Ctr, MNI, Montréal, QC)

*Cyclotron and radiochemistry at the McConnell Brain Imaging Centre today and tomorrow*

**November 27 : Farrah Flegal** (Biodosimetry, Canadian Nuclear Laboratories, Deep River, ON)

*Canadian emergency biodosimetry dose response network*

**December 08 : Christopher Johnstone** (Physics & Anatomy, U Victoria, Victoria, BC)

*Automated microCT image analysis for small animal image-guided radiotherapy*

**December 08 : Magdalena Bazalova-Carter** (Physics & Anatomy, U Victoria, Victoria, BC)

*From x-ray fluorescence CT imaging to dose-enhanced radiation therapy*
**Winter 2015-2016**

**January 15**: Marco Carlone (Princess Margaret Hospital, Toronto, ON)
- *SIMAC: A simulated environment for learning linac physics*

**January 22**: Julien Jouganous (Human Genetics, McGill U, Montreal, QC)
- *Tumor growth modeling and simulation: Applications to clinical cases and genetics*

**January 29**: Diane Kelly (Queen’s U, Kingston, ON)
- *Medical physicists & software development*

**February 05**: Pavlos Papaconstantopoulos (Medical Physics Unit, McGill U, Montreal, QC)
- *On the detector response and the reconstruction of the source intensity distribution in small fields*

**February 12**: Margaret Murphy (Patients for Patient Safety, WHO, Cork, Ireland)
- *The patient experience as a catalyst for change*

**February 18**: Marta Kersten (McConnell Brain Imaging Centre, MNI, Montreal, QC)
- *Augmented reality in image-guided neurosurgery*

**February 19**: Adam Shuhendler (Chemistry/Biomolecular Sciences, U Ottawa, Ottawa, ON)
- *Enzyme-assembled PET and MRI molecular imaging agents for mapping the early response of tumors to radiation of chemotherapy*

**February 26**: Marat Seydaliev (Canadian Nuclear Laboratories, Deep River, ON)
- *GEM-based TEPC for neutron dosimetry*

**March 18**: Claudine Gauthier (Physics, Concordia U, Montreal, QC)
- *MRI of oxidative metabolism in the brain*

**April 01**: Cynthia Menard (Radiation Oncology, CHUM Hôpital Notre-Dame, Montreal, QC)
- *MRI-guided radiotherapy for prostate cancer*

**April 22**: Jack Sankey (Physics, McGill U, Montreal, QC)
- *Towards ultrasensitive, optically-defined mechanical sensors*

**May 20**: David Rogers (National Research Council / Medical Physics, Carleton University, Ottawa, ON)
- *How to accurately represent and measure a radiotherapy beam’s spectrum*

**May 27**: Denise Miller (Lightsource, Saskatoon, SK)
- *The biomedical imaging and therapy beamlines at the Canadian Light Source synchrotron*