



## Studying biophysical properties of tissue with quantitative multi-component T2 MRI

**Speaker:** Dr Piotr Kozlowski, Associate Professor in the Departments of Radiology and Urologic Sciences at the University of British Columbia in Vancouver and Associate Director of the UBC MRI Research Centre

**When:** 4pm on Monday 10<sup>th</sup> of September 2018

**Where:** Rooms B2.36 & B2.37, Trinity Biomedical Sciences Institute

Magnetic Resonance Imaging (MRI) is one of the most versatile imaging techniques for studying fundamental properties of tissue. Since MRI signal is predominantly generated by protons in the water molecules, MRI can be used to study the water behaviour in different environments in different types of tissue, thus allowing characterization of biophysical properties of these tissues. Quantitative multi-component T2 MRI has been successfully applied to characterize various type of tissues, including brain, spinal cord, cartilage and prostate. In this talk, the physical bases of this technique will be discussed and examples of rodent spinal cord and human prostate applications will be presented.



Dr. Kozlowski is an Associate Professor in the Departments of Radiology and Urologic Sciences at the University of British Columbia in Vancouver, Canada, and the Associate Director of the UBC MRI Research Centre. He obtained his M.Sc. in physics at the Jagiellonian University and his Ph.D. in MRI physics at the Institute of Nuclear Physics in Krakow, Poland. His main research interest is in developing Magnetic Resonance technology to study preclinical models of human diseases. His current research projects involve (i) development and application of quantitative MRI techniques in preclinical models of spinal cord injury and (ii) development of novel MRI based techniques for prostate cancer diagnosis.