

# ACADIA PHYSICS SEMINAR

## Modern Technology in Medical Physics and Radiotherapy

**Dr. Dal Granville**

Medical Physicist, QEII Cancer Centre

Assistant Professor, Physics and Radiation Oncology,

Dalhousie University

**Friday, January 31, 2025 at 12:30 pm in  
Patterson Hall Room 206 (PAT 206)**

In modern radiotherapy, advanced imaging and delivery platforms are used to custom-tailor treatments that deliver high doses of radiation to cancerous tissues while minimizing doses to healthy tissues. In this seminar, we will explore the radiotherapy process from diagnosis to treatment delivery and examine the role played by medical physicists. Recent technological advances will be highlighted, including artificial intelligence and next-generation imaging techniques. We will also explore how these technologies intersect to enable online adaptive radiotherapy using the first-in-the-world Ethos with HyperSight platform recently installed in Halifax.

Dal is a clinical medical physicist specializing in radiotherapy at the QEII Cancer Centre and an Assistant Professor of Physics and Radiation Oncology at Dalhousie University. He is a proud graduate of the Acadia Physics Department, earning a BSc in 2009. Afterward, he received an MSc from the University of Calgary and a PhD from Carleton University. He worked as a medical physicist at The Ottawa Hospital Cancer Centre for seven years before moving home to Nova Scotia in 2023. His research primarily focuses on the development and application of AI and automation techniques in clinical workflows, and his clinical specialties include brachytherapy and adaptive radiotherapy.

