



University
of Victoria

PHYSICS AND ASTRONOMY COLLOQUIUM (Online)

Dr. Jan Schuemann
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“Proton FLASH Radiation Therapy at MGH”

Abstract

“FLASH irradiations, typically defined as irradiations at dose rates above 40 Gy/s, promise to increase the therapeutic ratio of radiation therapy by sparing healthy tissue without impacting tumor control. Multiple groups have demonstrated the tissue sparing effect as well as unchanged tumor control in multiple animal models and treatment sites over the past decade. However, while multiple mechanisms have been proposed to explain the effect, the underlying mechanisms is still not understood. In this presentation, I will report on our efforts to combine theoretical and experimental studies to determine the parameters that initiate the FLASH effect. Our goal is to use these findings to determine or rule out hypotheses of the underlying mechanism of FLASH tissue sparing.”

Wednesday, March 13th, 2024

3:30 p.m. PST

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