

Canadian Association of Physicists

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## Advancements in X-ray Imaging: Current State and Emerging Technologies

Monday 27 May 2024 10:30 (45 minutes)

This presentation will delve into the latest advancements in X-ray imaging techniques and technologies, with a focus on cutting-edge hardware developments. Key topics will include X-ray computed tomography (CT), X-ray tomosynthesis, multi-energy X-ray imaging, cone-beam computed tomography (CBCT) and real-time X-ray imaging for interventional procedures. The discussion will then shift to explore emerging techniques and technologies in the field, such as photon-counting computed tomography, phase-contrast imaging, cold-cathode X-ray tubes, and multi-layer energy-selective X-ray detectors. Attendees will gain a comprehensive understanding of both the current capabilities and future directions of X-ray imaging technology.

## Keyword-1

X-ray imaging

## Keyword-2

CT imagaing

## Keyword-3

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Session Classification: (DPMB) M1-3 DPMB 101 (Medical Imaging) I DPMB 101 (Imagerie médicale) (DPMB)

**Track Classification:** Technical Sessions / Sessions techniques: Physics in Medicine and Biology / Physique en médecine et en biologie (DPMB-DPMB)