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## **(I) The ATLAS Detector Phase-II Upgrades for the HL-LHC**

*Tuesday, 7 June 2022 09:20 (25 minutes)*

Scheduled to begin operation early in 2029, the High-Luminosity LHC (HL-LHC) will be the largest collider ever built. With an instantaneous luminosity ten times larger than that of the LHC, it will allow for an exciting physics program and for discoveries that could signal new physics beyond the Standard Model. These excellent possibilities do come with major experimental and technological challenges. To address these the ATLAS detector will undergo an extensive upgrade program known as the Phase-II detector upgrades. In this presentation, an overview of the detector upgrades will be provided with emphasis on those with extensive Canadian participation. As an outlook, new technology opportunities for future collider applications and the opportunities for Canadian involvement will be briefly outlined.

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**Session Classification:** T1-3 New Directions in Accelerator-Based Experiments: Future Collider Experiments - Energy Frontier (PPD) | Nouvelles voies fondées sur des accélérateurs: expériences futures avec collisionneurs - frontière d'énergie (PPD)

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