



Readout System Enhancements for ATLAS ITk Project

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Agenda

**Introduction
HL-LHC & ITk**

**Our Progress
Acknowledgements**

Introduction

HL-LHC & ITk

Our Progress
Acknowledgements

ATLAS & the Inner Detector

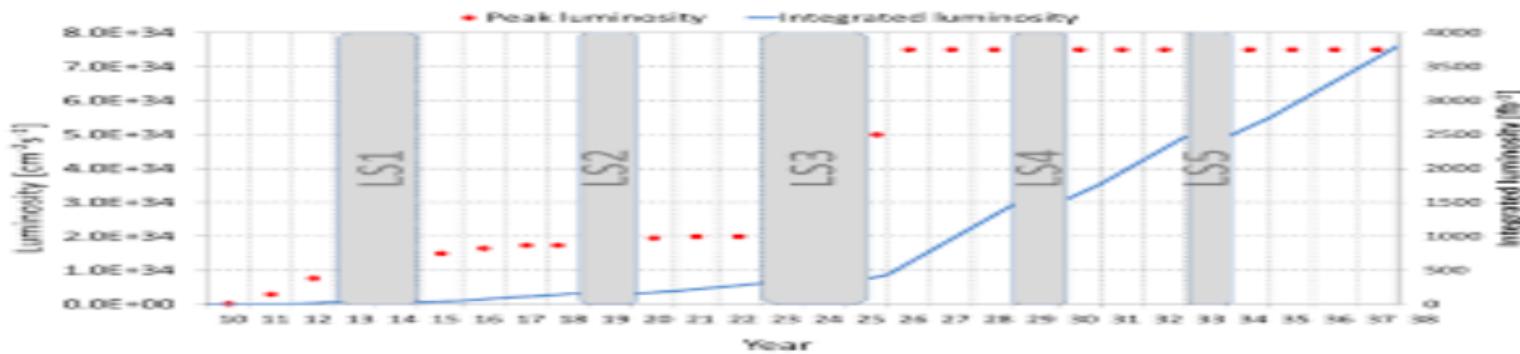
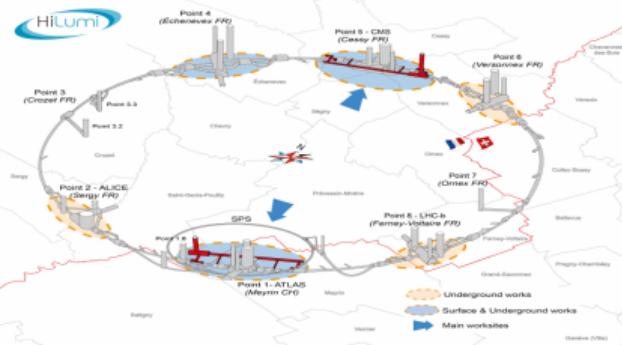
Introduction
HL-LHC & ITk

Our Progress
Acknowledgements

High Luminosity LHC & ITk Upgrades

x10 increase in instantaneous luminosity!

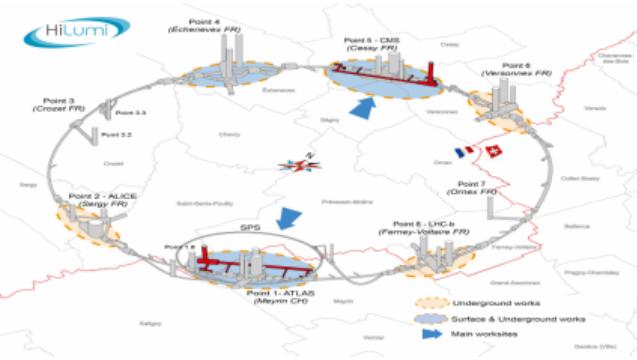
- $L = 1\text{e}73 \text{ fb}^{-1} \text{ s}^{-1} \rightarrow L = 1\text{e}74 \text{ fb}^{-1} \text{ s}^{-1}$
- More particles, more problems



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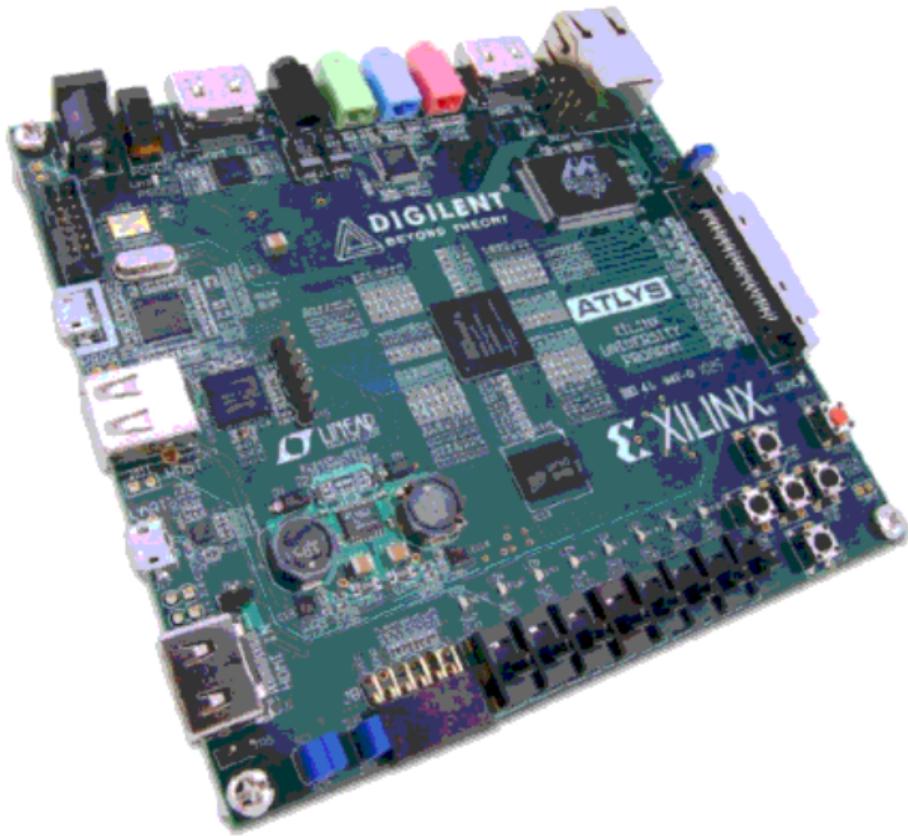
The inner detector has insufficient:

- ▶ radiation hardness
- ▶ granularity
- ▶ bandwidth

Introduction
HL-LHC & ITk

Our Progress
Acknowledgements

ATLYS Board



Obstacles

fuck

Introduction
HL-LHC & ITk

Our Progress
Acknowledgements

Acknowledgements

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