HEP Track Finding with the Micron Automata Processor and Comparison with an FPGA-based Solution

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Introduction

• Outline of Talk
  – Motivation for investigating the Micron Automata Processor (AP)
  – What is the Automata Processor?
  – Brief description of a proof-of-principle application to investigate the AP’s feasibility in HEP track recognition
  – Comparison with CPU, single and multi-threaded
  – Comparison with GPU
  – Comparison with Content-Addressable-Memory based FPGA implementation
End