Laboratoire d'Informatique de Paris 6 (LIP6)
Laboratoire de Physique Nucléaire et de Hautes Énergies (LPNHE)

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ESR5: RTA on heterogeneous architectures for LHC and self-driving cars

January 9, 2023

Fotis Giasemis

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Me

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- Design and deploy novel ML method for optimization (real-time)
- Then apply this method to the LHCb trigger

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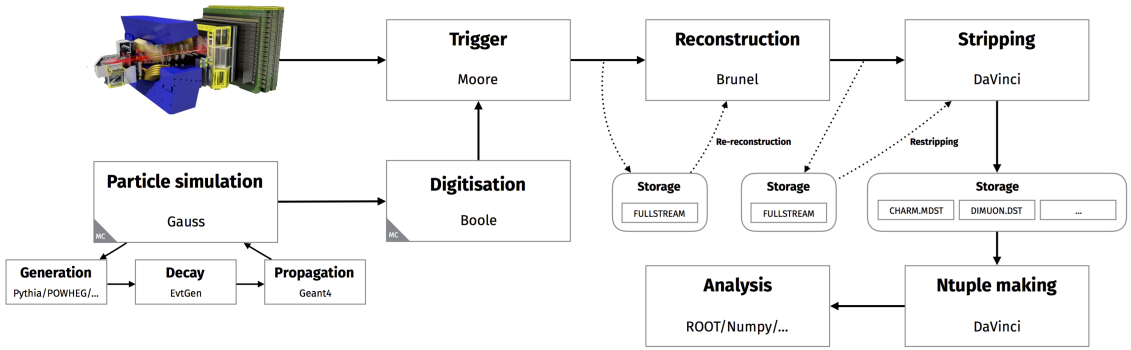

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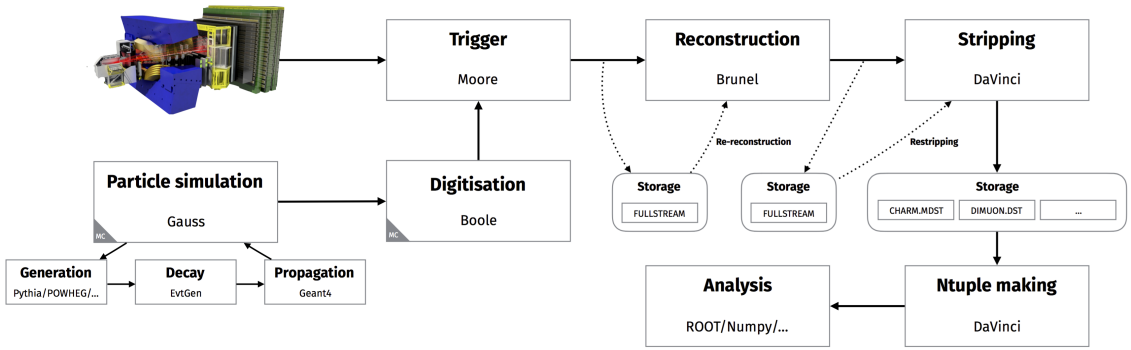

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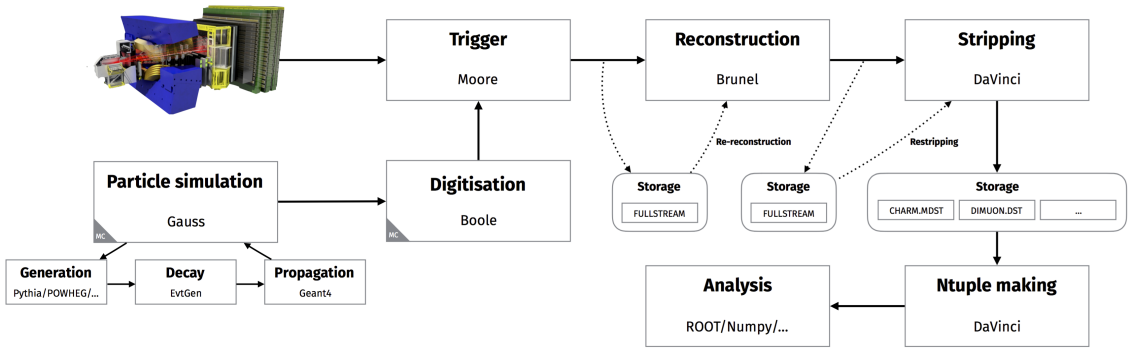

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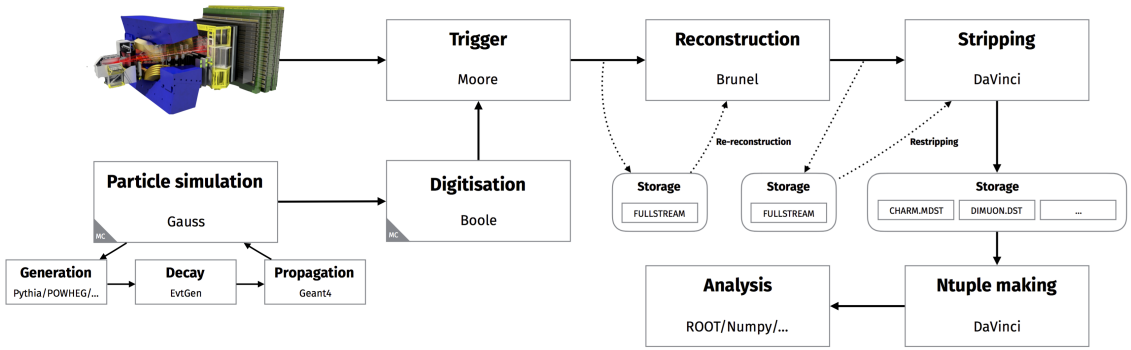

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  - Full HLT1 realization on GPU

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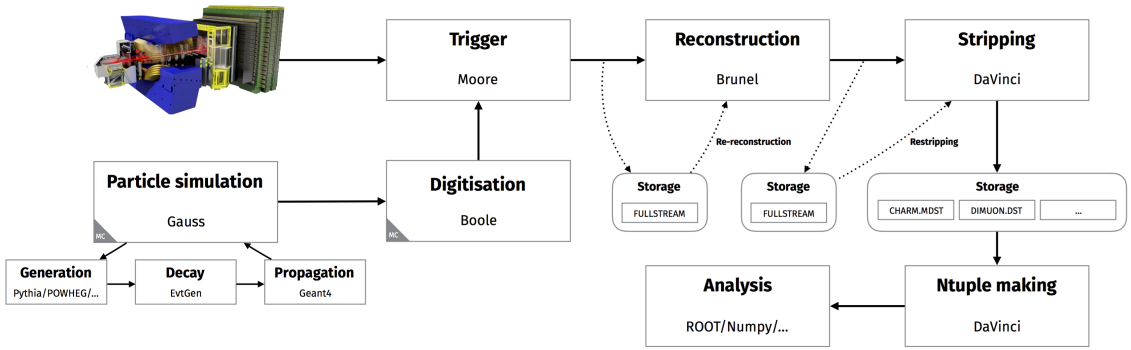

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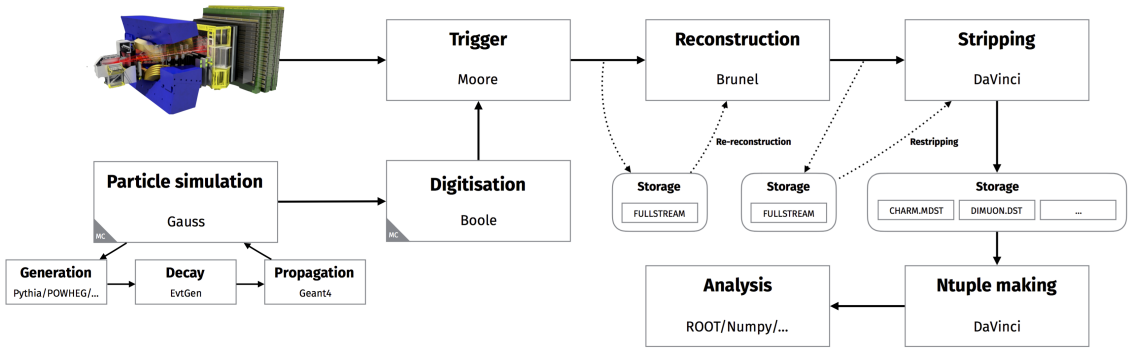

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    = 100,000 events/second

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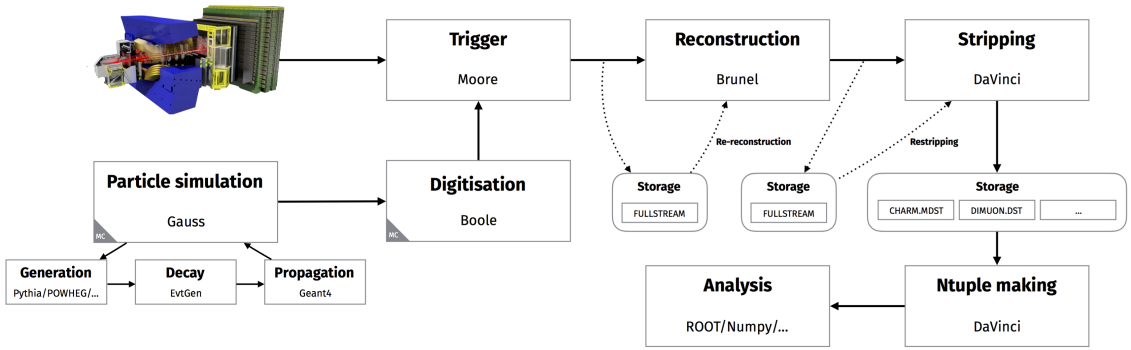

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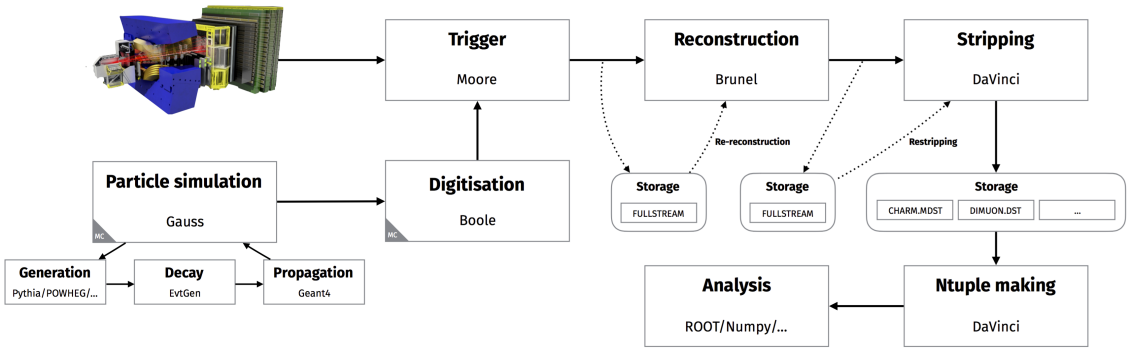

- Literature review
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    = 100,000 events/second (100 kHz)
- Allen algorithms and GNNs

ESR5: secondments

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  - Use attention networks, to improve traffic prediction algorithms

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  - Use attention networks, to improve traffic prediction algorithms
  - Focus to a limited number of features

Career expectations

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- Academia: particle physics

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- Academia: particle physics or AI

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