

Gaudi Evolution for Future Challenges

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The LHCb Software Framework Gaudi was initially designed and developed almost twenty years ago, when computing was very different from today. It has also been used by a variety of other experiments, including ATLAS, Daya Bay, GLAST, HARP, LZ, and MINERVA. Although it has been always actively developed all these years, stability and backward compatibility have been favoured, reducing the possibilities of adopting new techniques, like multithreaded processing. R&D efforts like GaudiHive have however shown its potential to cope with the new challenges.

In view of the LHC second Long Shutdown approaching and to prepare for the computing challenges for the Upgrade of the collider and the detectors, now is a perfect moment to review the design of Gaudi and plan future developments of the project. To do this LHCb, ATLAS and the Future Circular Collider community joined efforts to bring Gaudi forward and prepare it for the upcoming needs of the experiments.

We present here how Gaudi will evolve in the next years and the long term development plans.

Tertiary Keyword (Optional)

Secondary Keyword (Optional)

Primary Keyword (Mandatory)

Data processing workflows and frameworks/pipelines

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