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Data Analysis using ALICE Run3 Framework

Tuesday, November 5, 2019 11:45 AM (15 minutes)

ALICE Experiment is currently undergoing a major upgrade program, both in terms of hardware and software, to prepare for the LHC Run 3. A new Software Framework is being developed in collaboration with the FAIR experiments at GSI to cope with the 100 fold increase in collected collisions.

We present our progress to adapt such a framework for the end user physics data analysis. In particular, we will highlight the design and technology choices.

We will show how we adopt Apache Arrow as a platform for our in memory analysis data layout. We will illustrate the benefits of this solution, such as: efficient and parallel data processing, interoperability with a large number of analysis tools and ecosystems, integration with the modern ROOT declarative analysis framework RDataFrame.

Consider for promotion

No

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