

GPU-based online-offline reconstruction in ALICE for LHC Run 3

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In LHC Run 3, ALICE will increase the data taking rate significantly to read out 50 kHz minimum bias Pb-Pb collisions. Such a large increase poses challenges for online and offline reconstruction as well as for data compression. Compared to Run 2, the online farm will process 50 times more events per second and achieve a higher data compression factor. To address this challenge ALICE will rely on GPUs to perform real time processing and data compression in some of the most critical steps of the synchronous online reconstruction during the data taking. The software is written in a generic way, such that it can also run on processors on the WLCG with the same reconstruction output. We give an overview of the status and the current performance of the reconstruction and the data compression implementations on GPUs.

I read the instructions

Secondary track (number)

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