GPUs for event reconstruction

In the last few years, the graphics processor units (GPUs) have moved from the traditional fixed-function 3D graphics pipeline toward a flexible general-purpose computational engine. With the Nvidia Compute Unified Device Architecture (CUDA), one can get orders-of-magnitude performance increases over standard multi-core processors, while programming with a high-level language such as C and C++. In this presentation usages of different NVIDIA cards (commodity and Professional solutions) will be compared running different algorithms of the event reconstruction in the FairRoot Framework.

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