

GPU's for event reconstruction in the FairRoot Framework

Thursday, March 26, 2009 3:00 PM (20 minutes)

FairRoot is the simulation and analysis framework used by CBM and PANDA experiments at FAIR/GSI. The use of GPU's for event reconstruction in FairRoot will be presented. The fact that CUDA (Nvidia's Compute Unified Device Architecture) development tools work alongside the conventional C/C++ compiler, makes it possible to mix GPU code with general-purpose code for the host CPU, based on this some of the reconstruction tasks can be send to the graphic cards. Moreover, tasks that run on the GPU's can also run in emulation mode on the host CPU, which has the advantage that the same code is used on both CPU and GPU.

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