



Contribution ID: 157

Type: **Parallel**

IceCubes GPGPU's cluster for extensive MC production

Thursday, 24 May 2012 17:00 (25 minutes)

GPGPU computing offers extraordinary increases in pure processing power for parallelizable applications. In IceCube we use GPUs for ray-tracing of cherenkov photons in the antarctic ice as part of detector simulation. We report on how we implemented the mixed simulation production chain to include the processing on the GPGPU cluster for the IceCube Monte-Carlo production. We also present ideas to include GPGPU accelerated reconstructions into the IceCube data processing.

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Session Classification: Event Processing

Track Classification: Event Processing (track 2)