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Gaudi GPU Manager

During the second long shutdown in 2017, the beam will undergo an intensity increase. This will place an increased load on the hardware, necessitating an upgrade. One potentially very cost-effective way to add computational power would be to replace some of the CPU cores with graphics processing units or other modern many-core hardware.
A number of people is currently working on GPU versions of algorithms used for tracking and reconstruction. We focus on the infrastructure required to integrate these algorithms with the computational framework used at LHCb. We describe the challenges standing in the way of tapping massively parallel computation and our accomplishments in overcoming them.

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