



Contribution ID: 35

Type: **Plenary**

Fast parallel Primary Vertex reconstruction for the LHCb Upgrade

Monday, April 20, 2020 1:35 PM (15 minutes)

The physics program of the LHCb experiment depends on an efficient and precise reconstruction of the primary vertices produced by proton-proton collisions. The LHCb Upgrade detector, starting to take data in 2021 with a fully software-based trigger, requires an online reconstruction at a rate of 30 MHz, necessitating fast vertex finding algorithms. We present a new approach to vertex reconstruction and its parallelized implementation on x86 and GPU architectures.

Consider for young scientist forum (Student or postdoc speaker)

Yes

Second most appropriate track (if necessary)

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Session Classification: Recording sessions