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## Event Filter Tracking for the Upgrade of the ATLAS Trigger and Data Acquisition System

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This submission describes revised plans for Event Filter Tracking in the upgrade of the ATLAS Trigger and Data Acquisition system for the high pileup environment of the High-Luminosity Large Hadron Collider (HL-LHC). The new Event Filter Tracking system is a flexible, heterogeneous commercial system consisting of CPU cores and possibly accelerators (e.g., FPGAs or GPUs) to perform the compute-intensive Inner Tracker charged particle reconstruction. Demonstrators based on commodity components have been developed to support the proposed architecture: a software-based fast tracking demonstrator, an FPGA-based demonstrator, and a GPU-based demonstrator. Areas of study are highlighted in view of a final system for HL-LHC running.

### In-person participation

No

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