LHCb 2012 Trigger Diagram

40 MHz bunch crossing rate

L0 Hardware Trigger: 1 MHz readout, high E_T/P_T signatures

- 450 kHz h±
- 400 kHz µ/µµ
- 150 kHz e/γ

Defer 20% to disk

Software High Level Trigger

- 29000 Logical CPU cores
- Offline reconstruction tuned to trigger time constraints
- Mixture of exclusive and inclusive selection algorithms

5 kHz (0.3 GB/s) to storage