40 MHz bunch crossing rate

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

- 450 kHz $h^\pm$
- 400 kHz $\mu/\mu\mu$
- 150 kHz $e/\gamma$

Software High Level Trigger

- 26000 Logical CPU cores
- Offline reconstruction tuned to trigger time constraints
- Mixture of exclusive and inclusive selection algorithms

3.5 kHz (0.2 GB/s) to storage

- 1.5 kHz Inclusive Topological
- 1 kHz Inclusive/Exclusive Charm
- 1 kHz Muon and DiMuon

LHCb 2011 Trigger Diagram