

| Trigger | Typical offline selection | Trigger Selection | | L1 Peak Rate [kHz] | HLT Peak Rate [Hz] |
|--|--|-----------------------------------|-----------------------------|--|-----------------------|
| | | L1 [GeV] | HLT [GeV] | L=2.0×10 ³⁴ cm ⁻² s ⁻¹ | |
| | | | | | |
| Single leptons | Single isolated μ , $p_T > 27$ GeV | 20 | 26 (i) | 16 | 218 |
| | Single isolated tight e , $p_T > 27$ GeV | 22 (i) | 26 (i) | 31 | 195 |
| | Single μ , $p_T > 52$ GeV | 20 | 50 | 16 | 70 |
| | Single e , $p_T > 61$ GeV | 22 (i) | 60 | 28 | 20 |
| | Single τ , $p_T > 170$ GeV | 100 | 160 | 1.4 | 42 |
| Two leptons | Two μ , each $p_T > 15$ GeV | 2×10 | 2×14 | 2.2 | 30 |
| | Two μ , $p_T > 23, 9$ GeV | 20 | 22, 8 | 16 | 47 |
| | Two very loose e , each $p_T > 18$ GeV | 2×15 (i) | 2×17 | 2.0 | 13 |
| | One e & one μ , $p_T > 8, 25$ GeV | 20 (μ) | 7, 24 | 16 | 6 |
| | One loose e & one μ , $p_T > 18, 15$ GeV | 15, 10 | 17, 14 | 2.6 | 5 |
| | One e & one μ , $p_T > 27, 9$ GeV | 22 (e, i) | 26, 8 | 21 | 4 |
| | Two τ , $p_T > 40, 30$ GeV | 20 (i), 12 (i) (+jets, topo) | 35, 25 | 5.7 | 93 |
| | One τ & one isolated μ , $p_T > 30, 15$ GeV | 12 (i), 10 (+jets) | 25, 14 (i) | 2.4 | 17 |
| Three leptons | One τ & one isolated e , $p_T > 30, 18$ GeV | 12 (i), 15 (i) (+jets) | 25, 17 (i) | 4.6 | 19 |
| | Three very loose e , $p_T > 25, 13, 13$ GeV | $20, 2 \times 10$ | $24, 2 \times 12$ | 1.6 | 0.1 |
| | Three μ , each $p_T > 7$ GeV | 3×6 | 3×6 | 0.2 | 7 |
| | Three μ , $p_T > 21, 2 \times 5$ GeV | 20 | $20, 2 \times 4$ | 16 | 9 |
| | Two μ & one loose e , $p_T > 2 \times 11, 13$ GeV | 2×10 (μ) | $2 \times 10, 12$ | 2.2 | 0.5 |
| Signle photon | Two loose e & one μ , $p_T > 2 \times 13, 11$ GeV | $2 \times 8, 10$ | $2 \times 12, 10$ | 2.3 | 0.1 |
| | One loose γ , $p_T > 145$ GeV | 24 (i) | 140 | 24 | 47 |
| Two photons | Two loose γ , each $p_T > 55$ GeV | 2×20 | 2×50 | 3.0 | 7 |
| | Two γ , $p_T > 40, 30$ GeV | 2×20 | 35, 25 | 3.0 | 21 |
| | Two isolated tight γ , each $p_T > 25$ GeV | 2×15 (i) | 2×20 (i) | 2.0 | 15 |
| Single jet | Jet ($R = 0.4$), $p_T > 435$ GeV | 100 | 420 | 3.7 | 35 |
| | Jet ($R = 1.0$), $p_T > 480$ GeV | 111 (topo: $R = 1.0$) | 460 | 2.6 | 42 |
| | Jet ($R = 1.0$), $p_T > 450$ GeV, $m_{\text{jet}} > 45$ GeV | 111 (topo: $R = 1.0$) | $420, m_{\text{jet}} > 35$ | 2.6 | 36 |
| b -jets | One b ($\epsilon = 60\%$), $p_T > 285$ GeV | 100 | 275 | 3.6 | 15 |
| | Two b ($\epsilon = 60\%$), $p_T > 185, 70$ GeV | 100 | 175, 60 | 3.6 | 11 |
| | One b ($\epsilon = 40\%$) & three jets, each $p_T > 85$ GeV | 4×15 | 4×75 | 1.5 | 14 |
| | Two b ($\epsilon = 70\%$) & one jet, $p_T > 65, 65, 160$ GeV | $2 \times 30, 85$ | $2 \times 55, 150$ | 1.3 | 17 |
| | Two b ($\epsilon = 60\%$) & two jets, each $p_T > 65$ GeV | $4 \times 15, \eta < 2.5$ | 4×55 | 3.2 | 15 |
| Multijets | Four jets, each $p_T > 125$ GeV | 3×50 | 4×115 | 0.5 | 16 |
| | Five jets, each $p_T > 95$ GeV | 4×15 | 5×85 | 4.8 | 10 |
| | Six jets, each $p_T > 80$ GeV | 4×15 | 6×70 | 4.8 | 4 |
| | Six jets, each $p_T > 60$ GeV, $ \eta < 2.0$ | 4×15 | $6 \times 55, \eta < 2.4$ | 4.8 | 15 |
| E_T^{miss} | $E_T^{\text{miss}} > 200$ GeV | 50 | 110 | 5.1 | 94 |
| B -physics | Two μ , $p_T > 11, 6$ GeV, $0.1 < m(\mu, \mu) < 14$ GeV | 11, 6 | 11, 6 (di- μ) | 2.9 | 55 |
| | Two μ , $p_T > 6, 6$ GeV, $2.5 < m(\mu, \mu) < 4.0$ GeV | 2×6 (J/ψ , topo) | 2×6 (J/ψ) | 1.4 | 55 |
| | Two μ , $p_T > 6, 6$ GeV, $4.7 < m(\mu, \mu) < 5.9$ GeV | 2×6 (B , topo) | 2×6 (B) | 1.4 | 6 |
| | Two μ , $p_T > 6, 6$ GeV, $7 < m(\mu, \mu) < 12$ GeV | 2×6 (Υ , topo) | 2×6 (Υ) | 1.2 | 12 |
| Main Rate B-physics and Light States Rate | | | | 86 | 1750 200 |