Hardware-Simulation Mismatches
Plots for Approval

L1Topo Commissioning Group

22 October 2018
Figure 1: Mismatch rates between L1Topo hardware and simulation. First row shows for each trigger chain the ratio between number of events selected by the simulation but not by the hardware and the total number of events accepted by the simulation. Second row shows the ratio of number of events selected by the hardware but not by the simulation and the total number of events accepted by hardware. Masses and energies are expressed in GeV and angles in radians. Sub-indexes “i, j” denote lists of trigger objects, “1” means leading in terms of transverse momentum.
Figure 2: Mismatch rates between L1Topo hardware and simulation. First row shows for each trigger chain the ratio between number of events selected by the simulation but not by the hardware and the total number of events accepted by the simulation. Second row shows the ratio of number of events selected by the hardware but not by the simulation and the total number of events accepted by hardware. Masses and energies are expressed in GeV and angles in radians. Sub-indexes “i, j” denote lists of trigger objects; bx+1 refers to the bunch crossing immediately after the event. Super-indexes “C, F” for jets denote central (|η|<2.5) and full range (|η|<4.9), respectively.

L1Topo items in order (left to right):

0INVM9-EM7ab-EMab
500INVM9999-J30s6-AJ20s6
2INVM8-MU6ab-MU4ab
SC111-CJ15ab.ETA26
1DISAMB-J25ab-0DR28-TAU20abi-TAU12abi
LATE-MU10s1