Trigger validation of 14.2.25.5

Physics Validation meeting

12 February 2009

David Strom and Ricardo Gonçalo on behalf of trigger validation team

Trigger Validation Report

Ricardo Goncalo and David Strom

- Changes in trigger counts are between r616 and previous processing (r598) are as expected (see attached text files) except for some differences in non-physics triggers
- Tau16i_EFxe30 has the expected rate
- Triggers with mu4 and mu6 now have reasonable rates
- Detailed feedback was provided by taus (see http://www.uoregon.edu/~areinsch/study.compare.142254Vs142255.5188.eps) and by Bphysics (next page)
- Muons reported that the changes in top counts were as expected
- In r616 IdScan definition of Pi still misses a few digits leading to a small inefficiency

B-physics slice

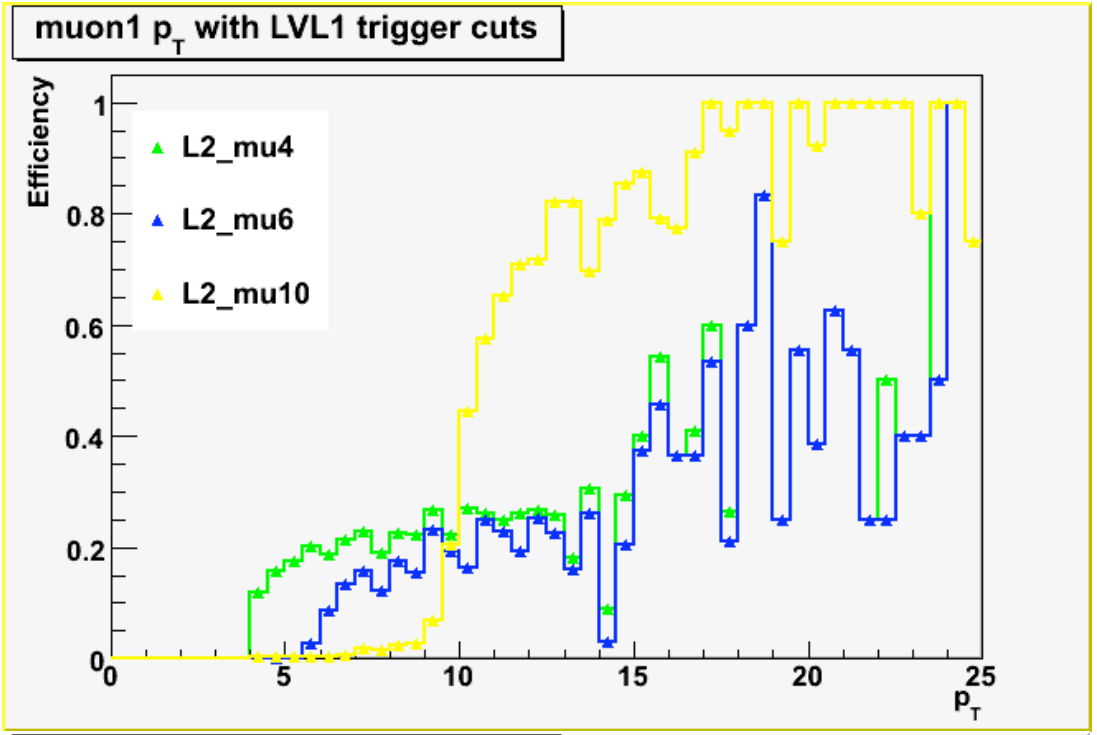
L2 muon efficiencies for run 108407
pp→Jpsimu4mu4
(tag e347_s462_r541)

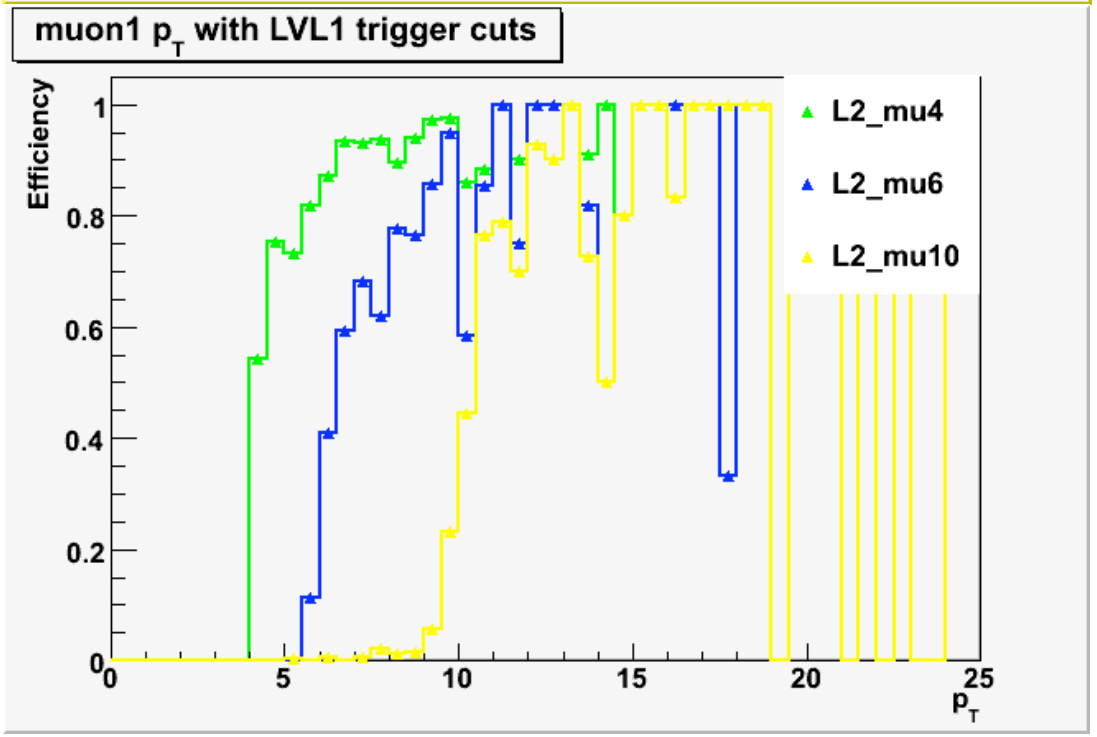
Clearly see problem with L2_mu4 and L2_mu6

L2 muon efficiencies for Reprocessed sample
(tag e380_s494_r616)

L2_mu4 and L2_mu6 look to be fixed.

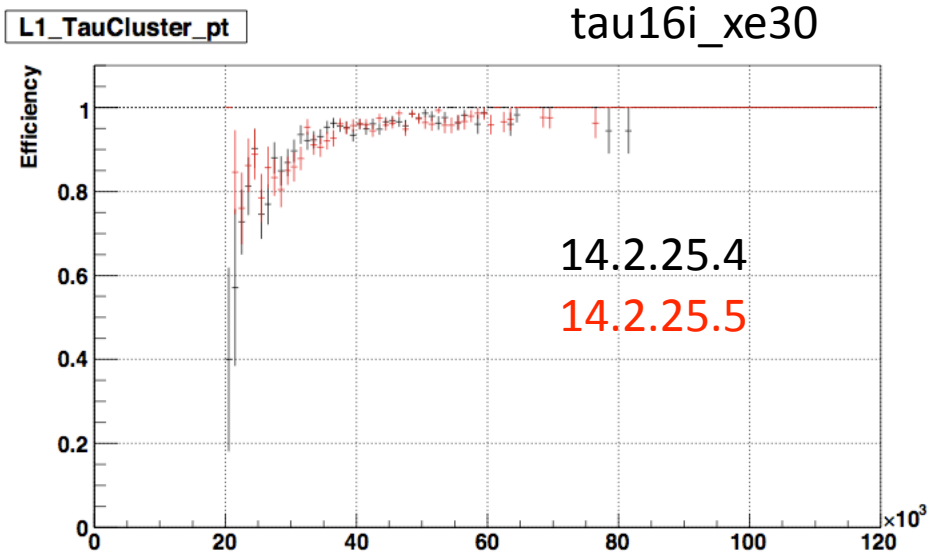
Julie Kirk

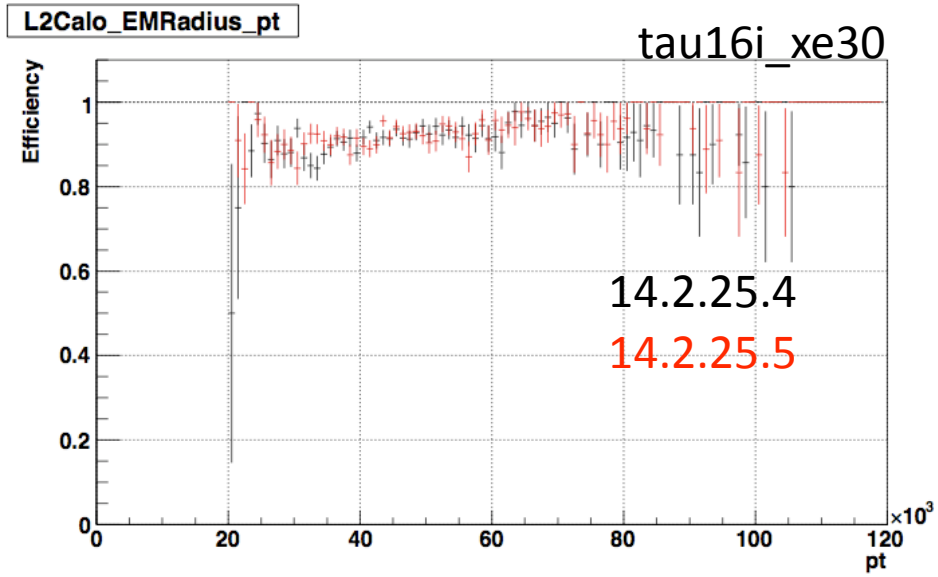




Tau slice

- Tau triggers look fine
- Last one requested tau16i_EFxe30 looks ok





Andreas Reinsch

(c1-c2)/<c1,c2>	c1	c2	label
42%	509	332	EF_g10_larcalib
21%	360	290	EF_g20_larcalib
36%	443	305	EF_mu4
33%	408	291	EF_mu6
96%	86	29	EF_2mu4
90%	64	24	EF_2mu6
-20%	4	5	EF_FJ120
---	410	0	EF_tau16i_EFxe30
39%	157	105	EF_tau16i_mu6
48%	96	58	EF_e10_mu6
37%	443	304	EF_mu4_j10
35%	1	0	EF_MU4_Jpsimumu_FS
167%	3	0	EF_2MU4_DiMu
---	0	0	EF_2MU4_Jpsimumu
37%	159	108	EF_mu4_DsPhiPi_FS
---	1000	0	EF_Mbts_2
64%	8	4	EF_2e10_mu6
60%	5	3	EF_2g10_mu6
107%	10	3	EF_2mu6_e10
108%	9	2	EF_2mu6_g10
135%	4	0	EF_3mu6
-25%	267	345	EF_J80_larcalib
37%	1	1	EF_Jpsiee
21%	6	5	EF_Zee
80%	212	90	EF_mu4_j10_matched
84%	177	72	EF_mu4_j18_matched
84%	159	64	EF_mu4_j23_matched
81%	116	49	EF_mu4_j35_matched
78%	97	42	EF_mu4_j42_matched
93%	83	30	EF_mu4_mu6
-17%	337	403	EF_tau16i_loose_EFxe30_j50
39%	143	95	EF_tau20i_mu6

Count differences

- Changes in 14.2.25.55 (c1) with respect to 14.2.25.4 (c2)
- G10_larcalib changes due to a fixed bug in minbias prescales
- Others due to new triggers or mu4 and mu6 changes (no pi/K rejection)
- Some others just stat fluctuations
- Basically all ok