Triggers for $R(\Lambda_c)$

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Triggers for $R(\Lambda_c)$

/8

Why Triggers are important

 \Rightarrow The triggers that were used in $R(D^{\ast})$ biased the distribution of the variables that were fitted.

 \Rightarrow The bias was an unlucky one as the τ mode was getting more similar to the μ mode.

 \Rightarrow They eventually used a Hlt2CharmHadD02HH_D02KPi which was not designed for this analysis but by accident pick it up.

 \Rightarrow Today I will show the impact of the trigger line

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- \Rightarrow Today I study if the distribution changes for the baryon case.
- \Rightarrow In all cases I will use one stripping line:

Strippingb2LcMuXB2DMuNuXLine

Trigger impact

g21e53[ambds_c_STAIL_TRUED==10424_[lambds_c_STAIL_TRUED==104124_64(mc_TRUED==53(mc_TRUED==13)]



g21e5 (Lantels, r., 5741, 790ED-+16424 (Lantels, r., 5744, 790ED-+16424(640m), 790ED-+13(m), 790ED-+13(



g21e53(ambda.c.57A/L7FUED-=164243(ambda.c.57A/L7FUED-=16412(66(m)_7FUED-=53(m)_7FUED-=13))



g21e53Lambdu.c.STAR.7RUED---54124 (Lambdu.c.STAR.7RUED---164124640m;;?RUED---15(m;;?RUED---10)



4/8

Trigger impact

Mediated (Lanka, C. STAR, TRUBD-THEN (Lanka, C. STAR, TRUBD-- 1012)(48) IN (RUBD--13) IN (RUBD--13)



MARKING CARGE, STAP, TRADING MICH, SAME, CONTRACTOR DAMAGE, TRADING TO THE CONTRACTOR DATE: 10



Mediated (Landa, J. STAP, TRUBD=1010) (Landa, J. STAP, TRUBD=-1010(ABINs, TRUBD=-10)(N, TRUBD=-10)



Mediate (Lands, J. STAP, TRUED-IDEN (Lands, J. STAP, TRUED-- DEDABLIN, TRUED-- D)



BDT output

- Last week I did a fast check without any optimisation.
- XGB:



BDT output

- Last week I did a fast check without any optimisation.
- BDT:



- BDT optimisationWith the optimisation (area under ROC):
 - BDT: •

MVA_BDT



Backup



⁹/8