

Weary traveller thou shall not pass this point as the quiz is ahead, don't spoil it for yourself and I'll be upset (1)





# Really this is the last warning mate











- No cheating and you will mark it yourself!
- You can work alone or in pairs!
- Just type your answers or write them down!
- Winner gets glory and a chocolate prize!
- We will start easy and get harder...



• What are the three *main* streams from HLT2?



To run DaVinci in Run 3 we need two files a python file and a what...?



 What are the name of the functions that calculate the variables to put in our root files?



What do DOCA and DIRA stand for and what does cos(DIRA) ~ 1 mean?



True or False - Ghost tracks are scary?



What do TIS, TOS and TOB stand for?



In MC truth matching, what does a background category of 0 represent?



• If I have F.PID\_K this is a measure of the kaon hypothesis with respect to which other particle mass hypothesis?



• Can you name all 7 variables that are provided in the functor collection called "Kinematics"?



- What type of track can be reconstructed from the VELO to the SciFi?
- What about just the UT and SciFi?



What is the input\_raw\_format for a dst file?



What are DD4HEP and det-desc?



What does DTF stand for?

A = Decay Transformation Fitter

B = Decay Tree Fitter

C = Desperately Tracking Fermions

D = Definitely Too Frustrating



True or False?

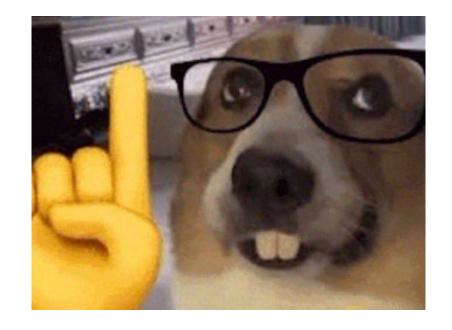
We have TIS, TOS and TOB but can we have TISTOS at the same time?



• I'm worried these might be too easy so pick a random number between 0 and 50...



### **ANSWER TIME**





• What are the three *main* streams from HLT2?



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Full stream, Turbo, Calibration (1 point each)



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YAML file (1 point)



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ThOr Functors! (or just functors is fine!) (1 point)



What do DOCA and DIRA stand for and what does cos(DIRA) ~ 1 mean?



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Distance Of Closest Approach (1 point)

Direction Angle (1 point)

 $cos(DIRA) \sim 1$  = More likely to be B candidate (Momentum pointing back to PV) (1 point)



True or False - Ghost tracks are scary?



True or False - Ghost tracks are scary?

True - We don't want them! (1 point)



• True or False - Ghost tracks are scary?

True - We don't want them! (1 point)

False - We have methods to deal with them (1 point)

EVERYONE gets a point unless you didn't write true or false...



What do TIS, TOS and TOB stand for?



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Trigger Independent Signal (1 point)

Trigger On Signal (1 point)

Trigger On Both (1 point)



In MC truth matching, what does a background category of 0 represent?



In MC truth matching, what does a background category of 0 represent?

Pure signal! (1 point)



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Pion mass hypothesis (1 point)



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Mass, P, PT, PX, PY, PZ, Energy (1 point each)



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Long track (1 point)

Downstream track (1 point)



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0.5 (1 point)



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Software framework that the detector model is built in (or words to that effect) (1 point)



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B = Decay Tree Fitter (1 point)

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True or False?

We have TIS, TOS and TOB but can we have TISTOS at the same time?



True or False?

We have TIS, TOS and TOB but can we have TISTOS at the same time?

TRUE (1 point)



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23 - No bias I used a random number generator! (1 point)



## Results!

If I can count it should be out of 28?





#### THE END

- Thanks so much for following along!
- I hope it has been useful and you can look back at the gitlab and the slides in the future!
- Best of luck for your analysis/work and welcome to LHCb!!

