

Questions and answers - Phoebe Hamilton Lecture 1

The following questions were submitted through Zoom Q&A. Some / all may have been answered in the Q&A session already. Nevertheless, we request our lecturers to provide written answers here for the benefit of those who could not attend that session. Thank you!

1) P17: LHCb PID identifies proton well. Is it true for PID of electrons ?

See ZOOM recording for live answer.

2) P32-33: For the interesting new strategy of the grand "fit for everything" together for $K^{*//}$, better measurements of what other key related modes can contribute best complementary sensitivities for the various operators in the fit with clean enough systematic for interpretation ?

See ZOOM recording for live answer.

3) P43: For the potential background to $B \rightarrow D^{*} \tau \nu$ from $D_s \rightarrow \tau \nu$, what strategy and assumptions LHCb used to constrain its effect ? Would more precise of $D_s \rightarrow \tau \nu$ help ?

See ZOOM recording for live answer.

4) P25: In the $m(K^{*//})$ vs q^2 scatter plot, what's the tilted band ?

See ZOOM recording for live answer.

5) For high energy experiments like ATLAS and CMS, and future Higgs factories, there is a general frustration that flavor experiments are only focusing on rare processes at BR < 1% level, while more precise inclusive measurements on 99% of the B,D decays important for modeling b,c tagging at high energy colliders are hard to come by. What's the prospect for more precision inclusive flavor measurements ?

See ZOOM recording for live answer.