Measurement of D^0 decays to $K_L{}^0\pi^0$ and $K_S{}^0\pi^0$

Charm group meeting

Status Report

09 June 06

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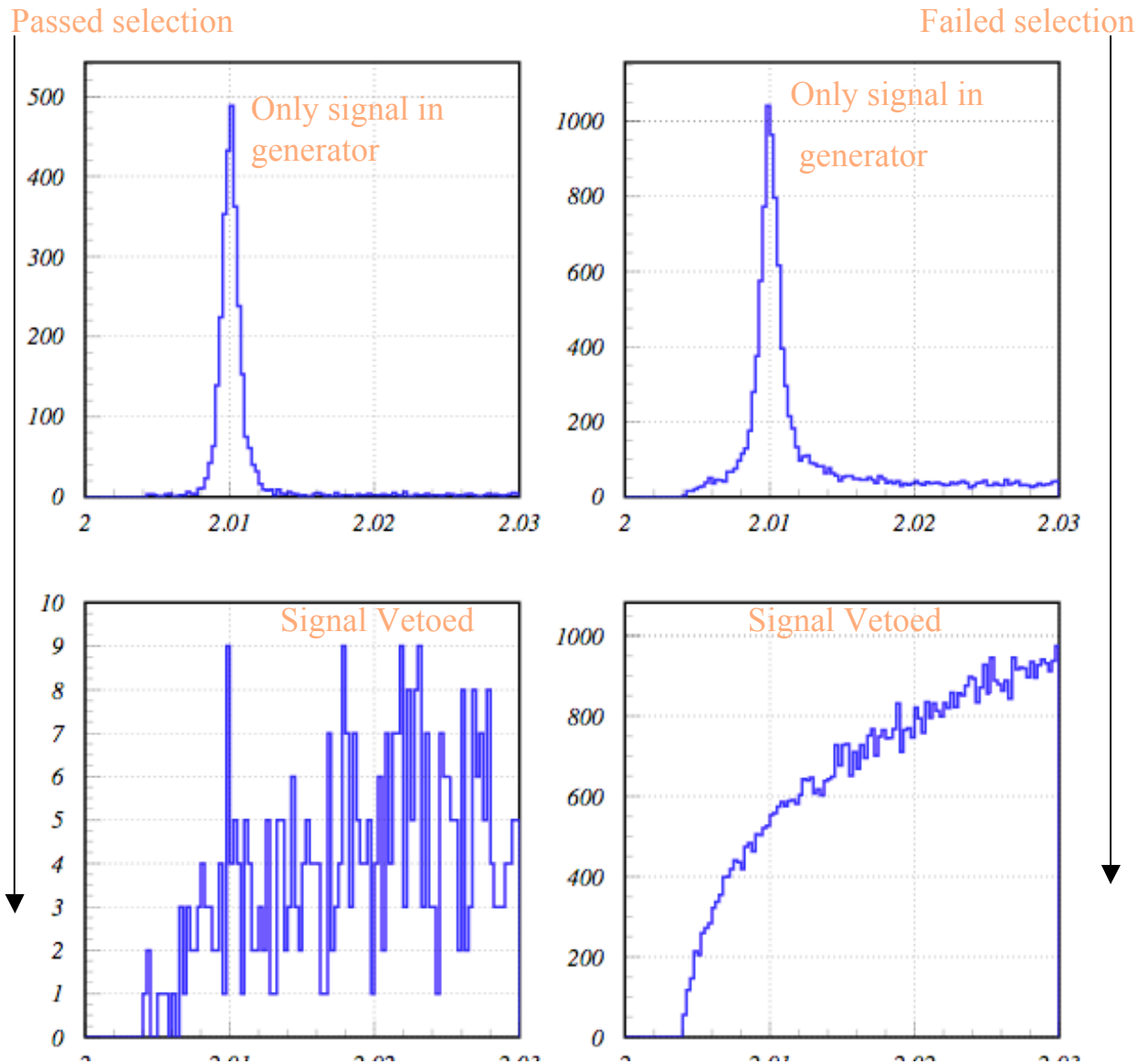
Introduction…..

~> I will have a short presentation today, study is done with Exp 07, on-resonance charm data

-> Effect of present event selection criteria and yield/peaking background in different decay modes is shown

D0->K0s Pi0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D0->Pseudo K0l Pi0

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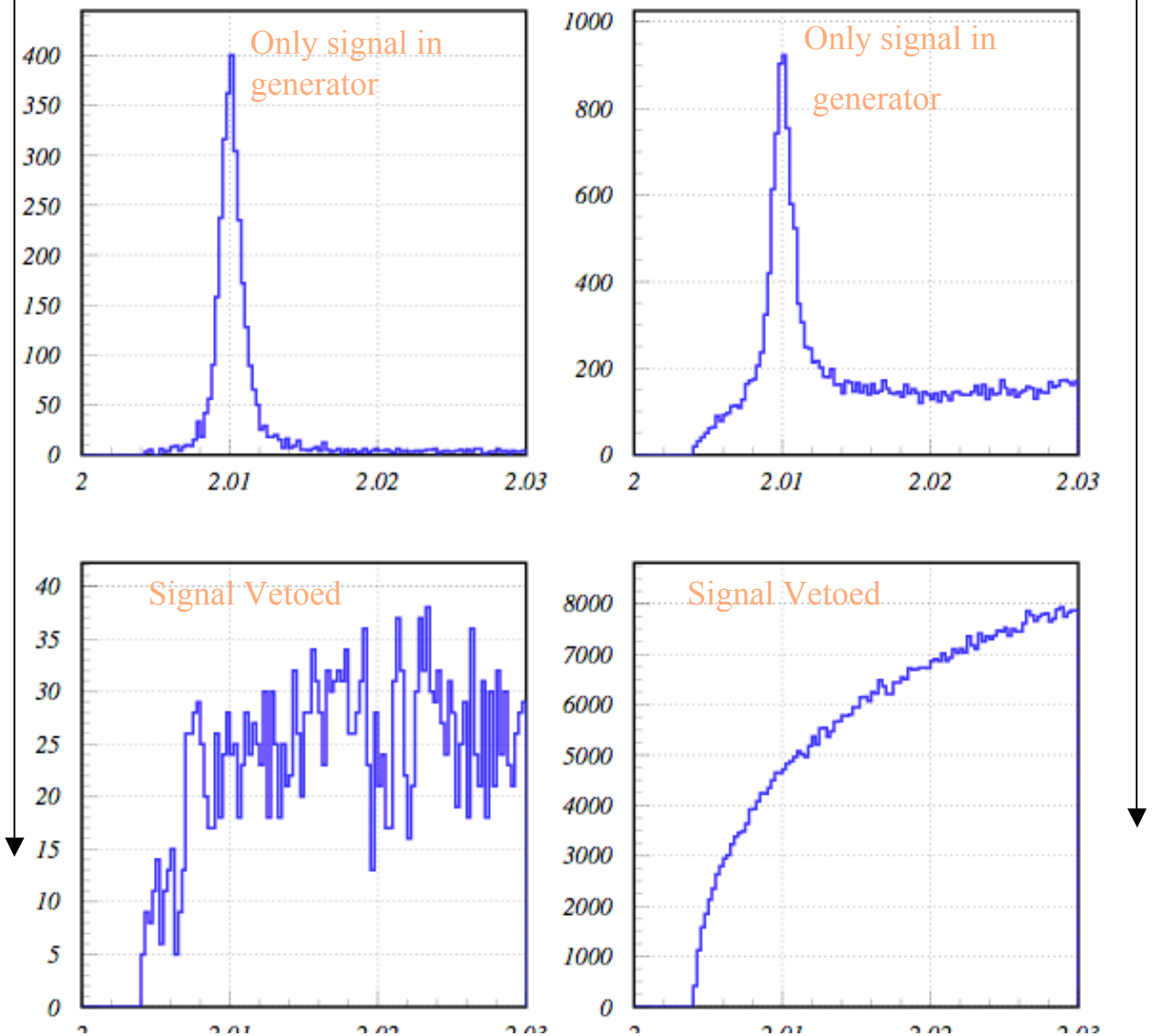
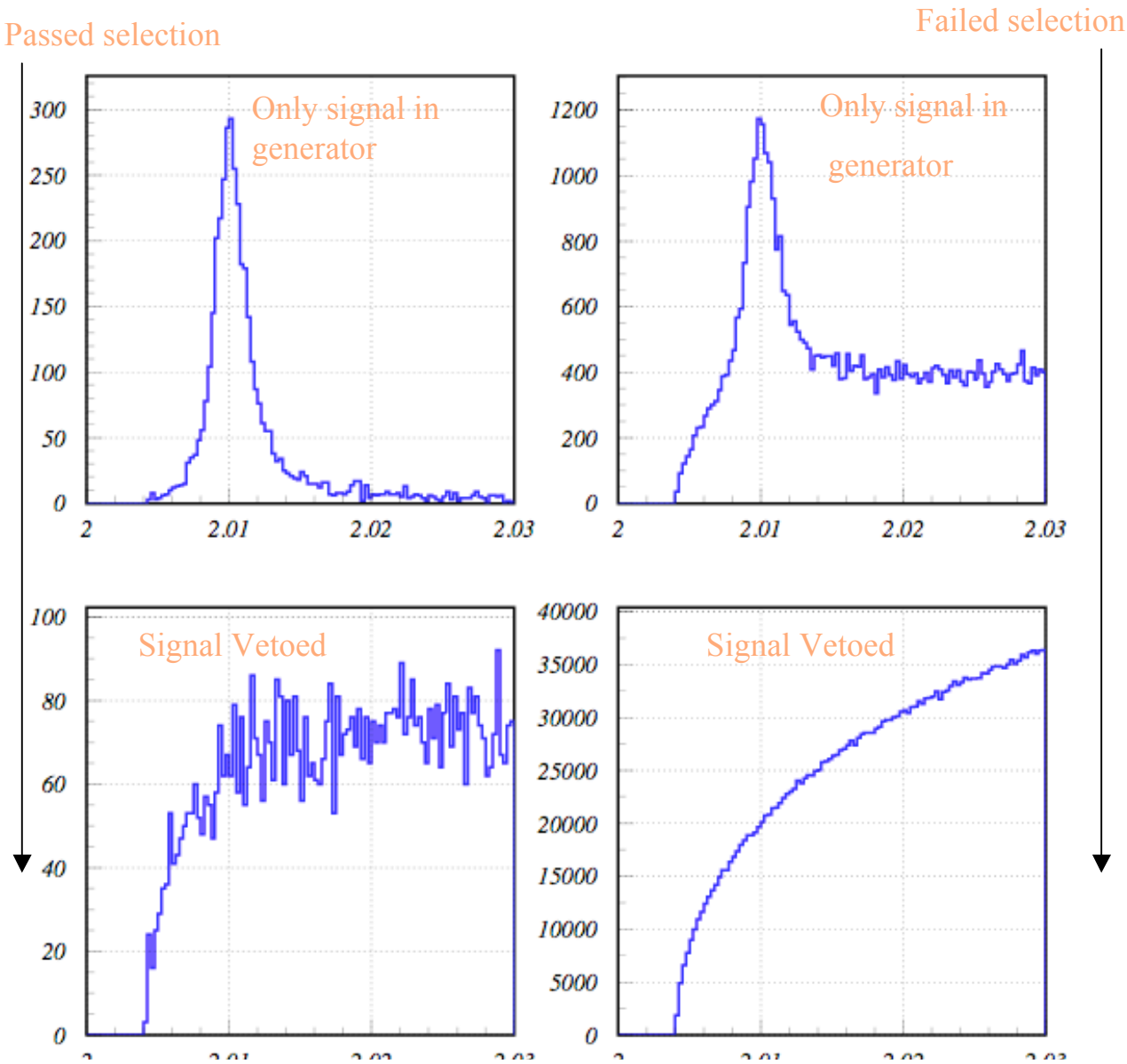


D0->K0l Pi0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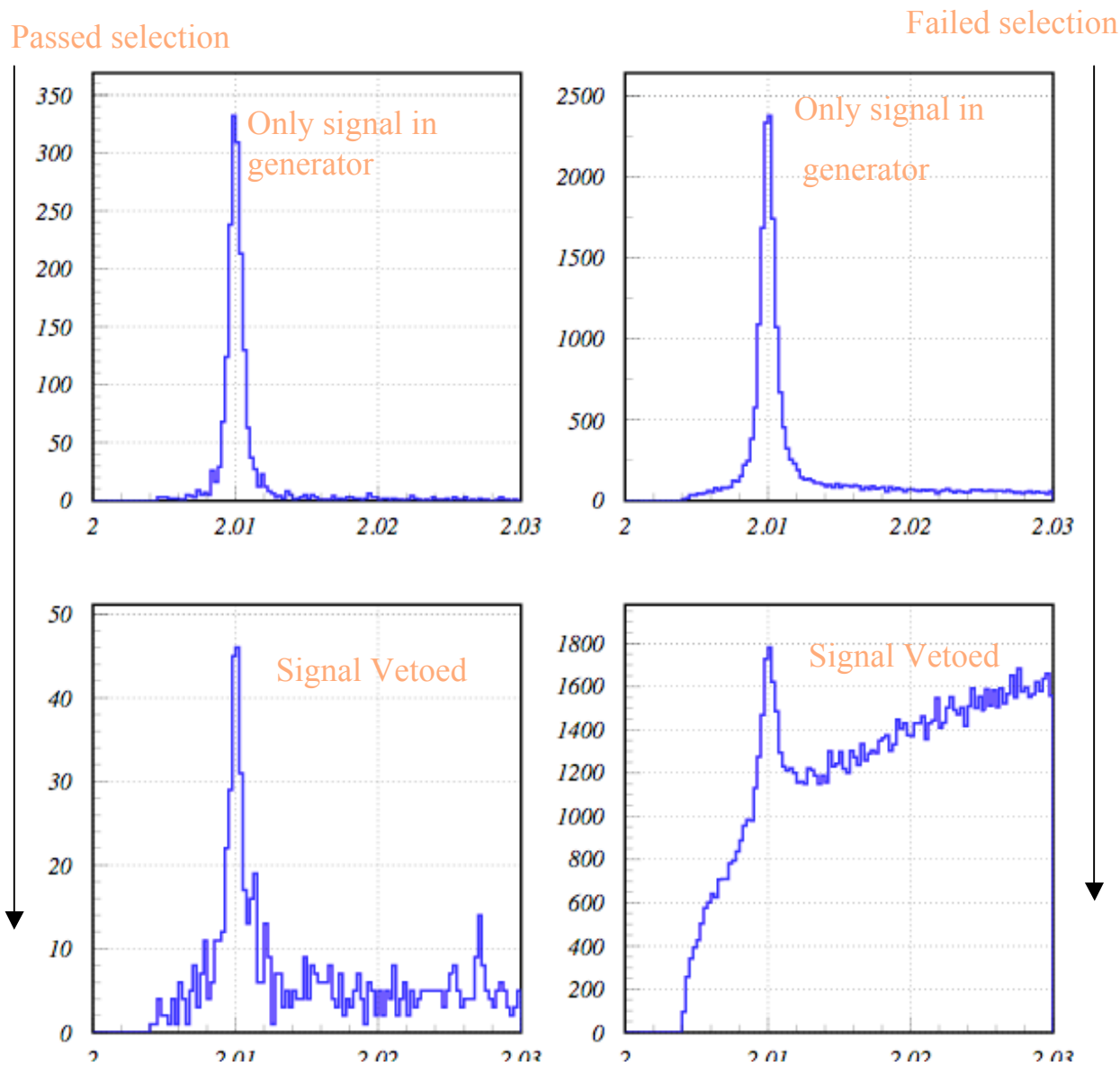
15000
10000
5000
0

D0->K0s Pi Pi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D0->Pseudo K0l Pi Pi

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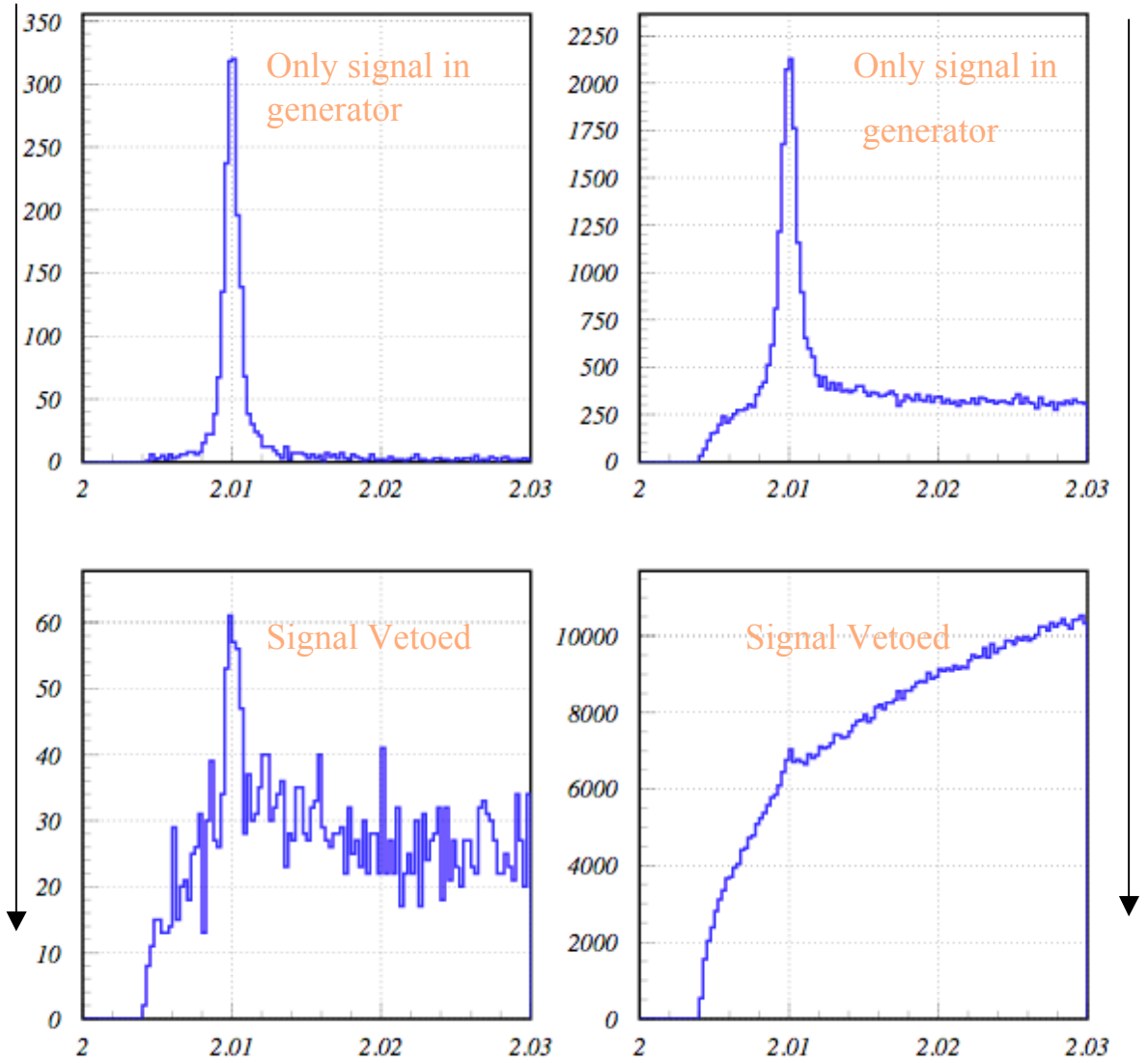

D0->K0l Pi Pi

Passed selection

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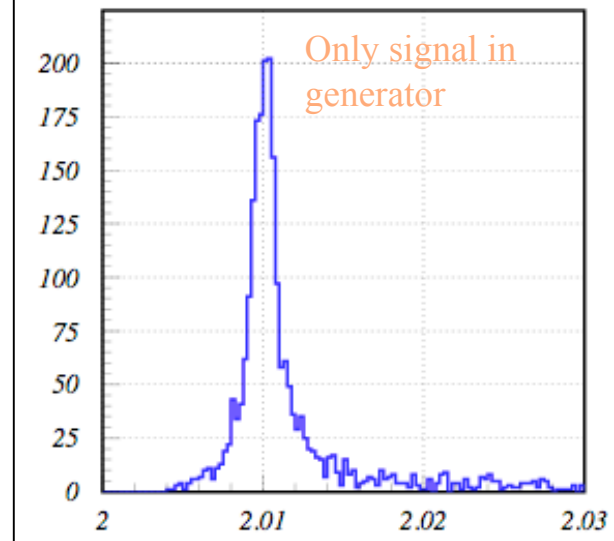

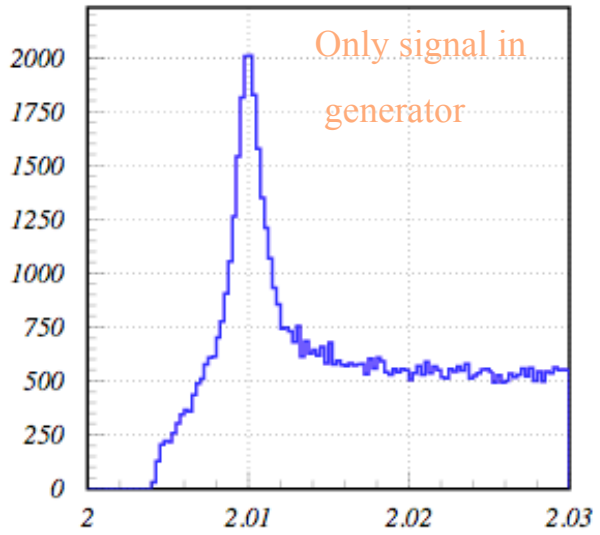

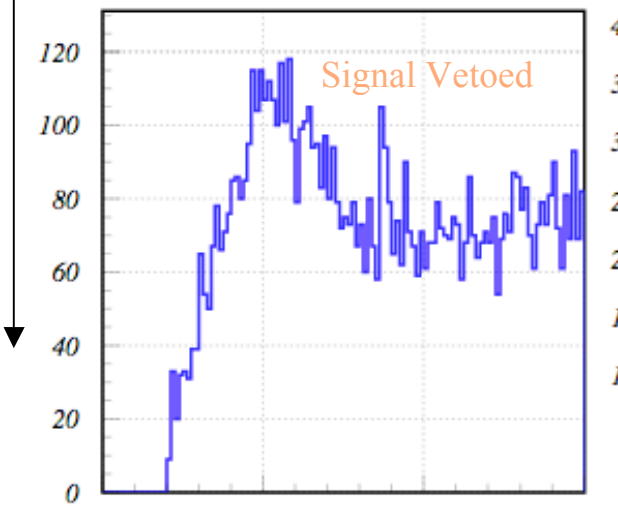

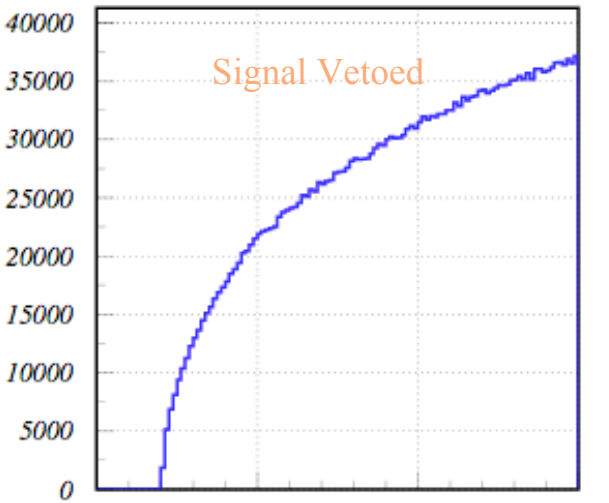

Composition of peaking background

- A preliminary study showed the peaking background in the K0s Pi Pi mode was a contribution from a situation where the Slow Pion was coming from a Rho_0, D0 or a f_0. Further study is going on.
- Also relaxing the M(Pi+ Pi-) cut resulted in an increase of the peaking background.

To Do list (not necessarily in chronological order)

- Complete understanding of the source of peaking background.
- Write Belle Note.
- Update to full (?) data/MC.
- Calculate Asymmetry in data after all cross check in MC.