

XV SuperB General Meeting
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Personal Production Report

performed in Oct-Nov 2010

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Production Objective

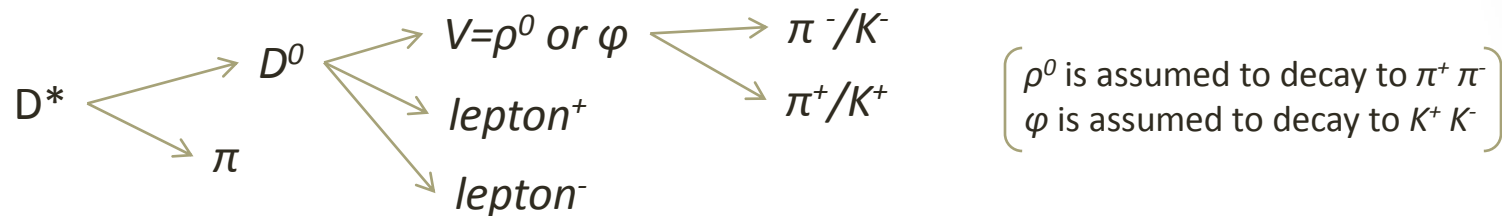
- Simulation of backgrounds to 8 rare charm decay modes
 - $D^{*+} \rightarrow D^0 \pi^+ \rightarrow \rho^0 e^+ e^-$ → results saved in “ntp1” tree
 - $D^{*+} \rightarrow D^0 \pi^+ \rightarrow \rho^0 \mu^+ \mu^-$ → ntp2
 - $D^{*+} \rightarrow D^0 \pi^+ \rightarrow \rho^0 e^+ \mu^-$ → ntp3
 - $D^{*+} \rightarrow D^0 \pi^+ \rightarrow \rho^0 \mu^+ e^-$ → ntp4
 - $D^{*+} \rightarrow D^0 \pi^+ \rightarrow \varphi e^+ e^-$ → ntp5
 - $D^{*+} \rightarrow D^0 \pi^+ \rightarrow \varphi \mu^+ \mu^-$ → ntp6
 - $D^{*+} \rightarrow D^0 \pi^+ \rightarrow \varphi e^+ \mu^-$ → ntp7
 - $D^{*+} \rightarrow D^0 \pi^+ \rightarrow \varphi \mu^+ e^-$ → ntp8

Generation

- FastSim V0.2.5 R311 was used
- PacProduction used with 3 generators:
 - uds → 10^9 events
 - ccbar → 10^9 events
 - Upsilon4S_generic → 10^9 events
- 2010_July/DstD0ToXLL.tcl script
- All machine types of backgrounds
- DG_4 detector geometry

Saved Contents

- Only events which passed SimpleCompostion decay tree:



- Only charged tracks which were in composed decay trees
- The tracks identified with the most loose TableBased selector
- All π^0 and γ candidates in the event saved
- Additional cuts on m_{D^0} , $m_{D^*-} - m_{D^0}$, $P_{D^*(CM)}$
- MCBLOCK, EventBlock, EventTags, SelectorMaps present
- Analysis module: **PacDstD0ToXLLUser**

Technical Summary

- Each job created 10^5 events
- 30000 jobs performed in total
- ~400GB of data
- Each job lasted 20-30 hours
- At each moment 500 jobs ran in parallel
- *superb* queue was used
- The results located at:
`/storage/gpfs_babar6/sb/konstan4/2010_July/FastSim/DstD0ToXLL/DG_4/`