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UpgradeMonteCarloSamples

This page is to collect information regarding Upgrade MC for trigger development

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Conditions

The monte-carlo has been produced using conddb and dddb tags:

- DDDB: dddb-20150702
- Condition DB: sim-20150716-vc-mu100
- CondDB().Upgrade = True

So the following job options are needed:

```
DaVinci().Simulation = True
DaVinci().DataType = "Upgrade"
DaVinci().InputType = 'LDST'
from Configurables import CondDB
CondDB().Upgrade = True
DaVinci().CondDBtag = "sim-20150716-vc-mu100"
DaVinci().DDDBtag = "dddb-20150702"
```

As the trigger has not yet been run on these samples, the following settings are helpful:

```
from Configurables import L0Conf
L0Conf().EnsureKnownTCK=False
```

Scripts

Some minimal scripts to run over these MC samples to produce ntuples can be found here:
https://gitlab.cern.ch/mwhitehe/upgrade_trigger_scripts

Datasets

- The samples can be found at the following path:
sim://MC/Upgrade/Beam7000GeV-Upgrade-MagUp-Nu7.6-25ns-Pythia8/Sim08h-NoRichSpill/Reco15U3/ReconstructibleFiltered

(see the book-keeping: https://lhcb-web-dirac.cern.ch/DIRAC/LHCb-Production/lhcb_user/Data/BK/display)

- MC reconstrucable filtered signal samples:

<table>
<thead>
<tr>
<th>Event type</th>
<th>Channel</th>
<th>Approx Filter efficiency</th>
<th>Nevts post-filter</th>
<th>WG</th>
<th>StrippingLines</th>
</tr>
</thead>
<tbody>
<tr>
<td>13246001</td>
<td>Bs2JPsiKKPiPi</td>
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<td>100000</td>
<td>B2CC</td>
<td>StrippingFullDSTDimuJpsi2MuMuDetached</td>
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<td>StrippingBetaBs2JpsiPhiDetachedLine</td>
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<td>Description</td>
<td>Efficiency</td>
<td>Rate</td>
<td>Stripping Options</td>
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<td>-----------------------------------------------------------------------------------</td>
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<td>100000</td>
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<td>11114001</td>
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<td>100000</td>
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<td>Bu2KstGamma</td>
<td>9%</td>
<td>100000</td>
<td>RD StrippingBd2eeKstLine, StrippingBd2eeKstLine</td>
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</tr>
</tbody>
</table>
Unfiltered cocktail samples for BG/rate estimations

<table>
<thead>
<tr>
<th>Event type</th>
<th>Channel</th>
<th>Nevts (unfiltered)</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Inclusive bb</td>
<td>2000000</td>
</tr>
<tr>
<td></td>
<td>Inclusive cc</td>
<td>2000000</td>
</tr>
<tr>
<td></td>
<td>Minbias</td>
<td>6000000</td>
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</table>

Requests

New samples requested as of April 2016 are listed below

<table>
<thead>
<tr>
<th>Event type</th>
<th>Channel</th>
<th>Nevts post-filter</th>
<th>Working group</th>
</tr>
</thead>
<tbody>
<tr>
<td>27265100</td>
<td>Dst2D0Pi_D02MuMu</td>
<td>100000</td>
<td>Charm</td>
</tr>
<tr>
<td>21113000</td>
<td>D2pimumu</td>
<td>100000</td>
<td>Charm</td>
</tr>
<tr>
<td>11574001</td>
<td>B2Dstaunu_tau2mununu</td>
<td>100000</td>
<td>Semileptonic</td>
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</tbody>
</table>

-- ConorFitzpatrick - 2015-08-25