

# Inclusive $b \rightarrow J/\psi X$ : CMSSW & Data samples for coming analysis

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# B physics Note & CMSSW offline Release

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- B Analyses: AN/PAS (from Urs)
  - **Focus on data coming `soon'**
  - **You should be working in 2 1 X**
- 2\_1\_10( 2\_1\_x or such) serve the CRAFT data taking
- 2\_2\_x
  - Fast Simu prodction: mid-November
  - PAT skim: end-November or mid-December
  - Full and fast dimu using PAT2.0
- 3\_0\_x
  - Root5.21/5.22
  - Geant4
  - M.C. prodction@ Gen+Simu March 2009

# Inclusive b data samples

## □ /BtoJpsiMuMu/Summer08\_IDEAL\_V9\_v1/GEN-SIM-RECO

18 Sep 2008, 2,033,294 evts, 266 files, 4 blocks, 442.5GB, 2 sites  
T2\_DE\_DESY : dcache-se-cms.desy.de 258,981 56.4GB  
T2\_DE\_RWTH : grid-srm.physik.rwth-aachen.de 1,774,313 386.1GB



CMSSW 2 1 8

Re-production

## □ /JPsi/Summer08\_IDEAL\_V2\_JPsi\_v1/RECO

14 Jul 2008, 1,413,803 evts, 686 files, 7 blocks, 1.4TB, 2 site  
NO NAME : cmsdca2.fnal.gov  
T1\_DE\_FZK : gridka-dCache.fzk.de 1,413,803 1.4TB

CMSSW 2 0 9

Ok for use but  
waiting for v218

## □ /MuonPT5/CSA08\_CSA08\_S156\_v1/GEN-SIM-RECO

26 May 2008, 10,398,576 events, 5006 files, 147 blocks, 6.8TB, 3 sites  
T1\_FR\_CCIN2P3 : ccsrm.in2p3.fr 10,398,576 6.8TB  
srm.cern.ch 2,188,430 1.4TB  
T2\_ES\_CIEMAT : srm.ciemat.es 10,398,576 6.8TB

CMSSW 2 1 7

Maybe soon RECO  
OK, waiting higher  
statistic sample

## □ /InclusivePPmuX/Summer08\_IDEAL\_V9\_v1/GEN-SIM-RAW

24 Sep 2008, 2,511,436 events, 2049 files, 2.4TB, 4 sites

## □ /ppMuX/Summer08\_STARTUP\_V5\_v1/GEN-SIM-RAW

16 Aug 2008, 2,256,949 events, 1239 files, 14 block(s), 1.8TB, 4 sites

CMSSW 2 1 2

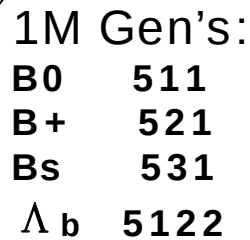
QCD

# QCD samples for Do

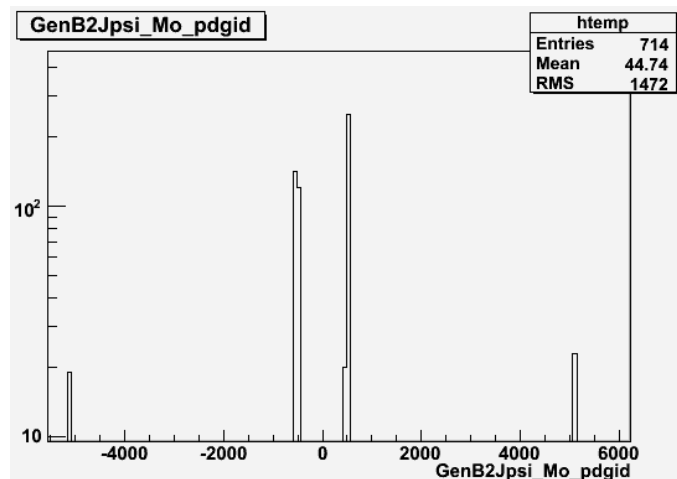
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- ❑ **/QCDpt15/Summer08\_IDEAL\_V9\_v1/GEN-SIM-RAW**  
04 Sep 2008, contains 7,833,000 evts, 4087 files, 50 blocks, 8.6TB, 8 sites
- ❑ **/QCDpt15/Summer08\_IDEAL\_V9\_v2/GEN-SIM-RAW**
- ❑ 2 Sep 2008, 5,294,700 events, 4979 files, 19 block(s), 5.2TB, 6 sites
- ❑ **/QCDpt15/Summer08\_IDEAL\_V9\_skim\_hlt\_v1/USER**  
07 Sep 2008, 7,757,700 evts, 120 files, 11 blocks, 217.8GB, 1 site  
T1\_US\_FNAL : cmsrm.fnal.gov 7,757,700 217.8GB
- ❑ **/QCDpt30/Summer08\_IDEAL\_V9\_v1/GEN-SIM-RAW**  
05 Sep 2008, 3,271,500 evts, 2181 files, 34 block(s), 4.2TB, 3 sites
- ❑ **/QCDpt30/Summer08\_IDEAL\_V9\_skim\_hlt\_v1/USER**  
08 Sep 2008, 3,262,500 evts, 70 files, 9 block(s), 96.0GB, 5 sites
- ❑ **/QCDpt470/Summer08\_IDEAL\_V9\_v1/GEN-SIM-RAW**  
12 Sep 2008, 1649376 events, 3818 files, 4.4TB, 5 sites

/BtoJpsiMuMu/Summero8\_IDEAL\_V9\_v1/  
Gen OK! So go Re-production!



- EvtGen Generator:  
10M will for  
Gen & Gen+Filter
- Cross-section  
 $\sigma_{\text{tot}} * \text{BR}(b \rightarrow J/\psi) * \text{BR}(J/\psi \rightarrow \mu\mu)$   
 $= 55 \text{ mb} * 0.0116 * 0.06$   
 $= 38.28 \text{ mb}$



| Subprocess | Number of points                        | Sigma     |          |           |
|------------|-----------------------------------------|-----------|----------|-----------|
|            |                                         | (mb)      |          |           |
| No         | Type                                    | Generated | Tried    |           |
| 0          | All included subprocesses               | 1000000   | 34306155 | 5.156E+01 |
| 11         | $f + f' \rightarrow f + f'$ (QCD)       | 217690    | 0        | 1.122E+01 |
| 12         | $f + \bar{f} \rightarrow f' + \bar{f}'$ | 193       | 0        | 9.952E-03 |
| 13         | $f + \bar{f} \rightarrow g + g$         | 153       | 0        | 7.889E-03 |
| 28         | $f + g \rightarrow f + g$               | 207571    | 0        | 1.070E+01 |
| 53         | $g + g \rightarrow f + \bar{f}$         | 12750     | 0        | 6.574E-01 |
| 68         | $g + g \rightarrow g + g$               | 561643    | 0        | 2.896E+01 |
| 95         | Low-pT scattering                       | 0         | 1002818  | 0.000E+00 |