24 Oct. 00

EM ENERGY SCALE			
Process	**MC Generator**	**Cuts**	**N$_{events}$**
Light Resonances			
$J/\Psi \rightarrow e^+e^-$	**PYTHIA**	$p_T(e^\pm)$ >**1 GeV**	**100 K**
$\Upsilon \rightarrow e^+e^-$	**PYTHIA**	$p_T(e^\pm)$ >**1 GeV**	**100 K**
Heavy Resonances			
$Z \rightarrow e^+e^-$	**PYTHIA**		**100 K**
$W^\pm \rightarrow e^\pm\nu_e$	**PYTHIA**		**100 K**

JET ENERGY SCALE			
Process	**MC Generator**	**Cuts**	**N$_{events}$**
Non-Resonant Processes			
$\gamma + jet$	**PYTHIA**		**100 K**
$\gamma + b - jet$	**PYTHIA (QQ)**		**50 K**
QCD (udscg)	**PYTHIA**		**100 K**
$b\bar{b}$	**PYTHIA (QQ)**		**50 K**
Resonant Processes			
$Z \rightarrow e^+e^-/\mu^+\mu^- + jet$	**PYTHIA**	$p_T(Z)$ >**5 GeV**	**50 K**
$Z \rightarrow b\bar{b}$	**PYTHIA (QQ)**		**50 K**

Parameters Setting

- **Release Version: t01.14.00**

$$\textbf{CorrespondingVersions}\begin{cases} D0GSTAR: \; pmc02.??.?? \\ D0SIM: \; psim01.??.?? \\ D0RECO: \; preco03.??.?? \\ \\ PYTHIA: \; 6.129 \\ STDHEP: \; 4.06 \\ TAUOLA: \; 2.5 \\ PDFLIB: \; 7.09 \\ QQ: \; 902? \end{cases}$$

- **CoM Energy:** $\sqrt{s}$ **=1.96 TeV**
- **Top Mass:** m_t **=174.3 GeV**
- **Common cuts:** $|\eta^*|$ **<4.2 and** $\hat{p}_T$ **>5 GeV**
- **Common PDFs: CTEQ4M**
- **Common Geometry: Plate level**
- **Common Luminosity Conditions:**

$$\begin{cases} \text{Low (L)}: \; \text{overlay of 1 min.} - \text{bias event } (\mathcal{L} = 2 \times 10^{31}\text{cm}^{-2}\text{s}^{-1}) \\ \text{Max (M)}: \; \text{overlay of 2.5 min.} - \text{bias event } (\mathcal{L} = 5 \times 10^{31}\text{cm}^{-2}\text{s}^{-1}) \\ \underline{\text{half the statistics each}} \end{cases}$$