

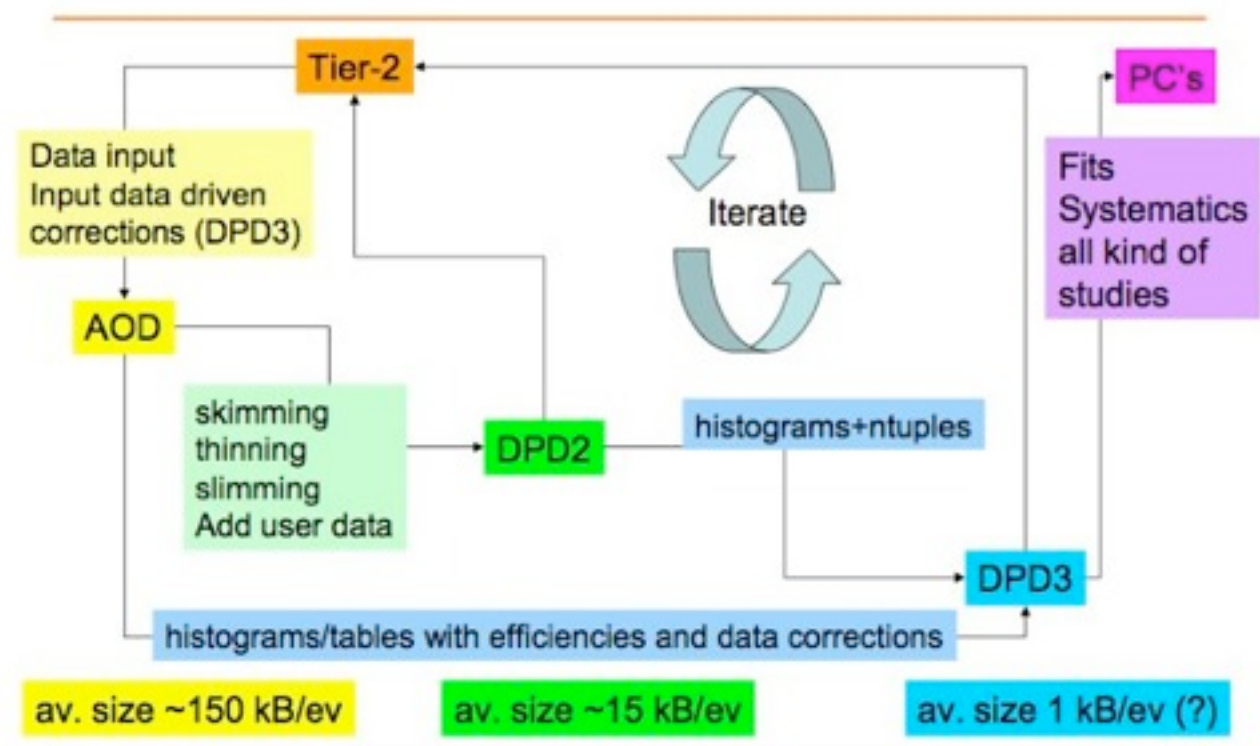
Outline

- Datasets and analysis model
- Theoretical uncertainties on acceptance
- Z and W selections on MC samples
 - ★ Results for 50 pb⁻¹
- Towards real data measurement
 - ★ Event selection from single particle efficiency
 - ★ Determination of efficiencies from data
 - ★ Event re-weighting procedure
- Backgrounds evaluation
 - ★ Data driven techniques and shapes fits
- Calibration effects
 - ★ Muon momentum scale and resolution
 - ★ Missing energy scale
- Conclusion & outlook

Datasets and analysis model

Dataset	$\sigma \cdot \epsilon$ (nb)
mc08.106051.PythiaZmumu_1Lepton.recon.AOD.e347_s462_r635/	1.098
mc08.106021.PythiaWmunu_1Lepton.recon.AOD.e352_s462_r635/	10.352
mc08.105200.T1_McAtNlo_Jimmy.recon.AOD.e357_s462_r635/	0.206
mc08.106052.PythiaZtautau.recon.AOD.e347_s462_r635/	1.128
mc08.106022.PythiaWtaunu_1Lepton.recon.AOD.e352_s462_r635/	4.184
mc08.105014.J5_pythia_jetjet.recon.AOD.e344_s479_r635/	5.18
mc08.108405.PythiaB_bbmu15X.recon.AOD.e388_a84_tid066711	90
mc08.106059.PythiaB_ccmu15X.recon.AOD.e401_a84	29
user09.*Salvucci.ganga.mc08.106051.Zmumu*ms100indcscDAY1_e347_s462_d154_task041200_r635*	1.098
user09.*Salvucci.ganga.mc08.106051.Zmumu*ms500_e347_s462_d154_task041200_r635*	1.098
user08.mariannatesta.ganga.datafiles.misal.106021.PythiaWmunu_1Lepton.recon.AOD	10.352

- Running in grid at T-2 AODs
 - ★ heavy part of the analysis like track extrapolation, isolation studies, tag&probe selections
 - ★ AODs + derived data stored on D3PDs (flat ntuples of 5-10 kb/event*)
- Final analysis locally on T-3
 - ★ plot, tables and fits



* to be optimized further

W and Z event selections

$Z \rightarrow \mu\mu$ selection

Acceptance	both Z truth muons	$p_T > 15 \text{ GeV}, \eta < 2.5$
Kinematics	pairs of offline Staco muons	$p_T > 20 \text{ GeV}, \eta < 2.5$
Isolation	pairs of offline Staco muons	$\Sigma N^{\text{ID}} < 6, \Sigma P_T^{\text{ID}} < 5 \text{ GeV}$ in 0.4 cone
Trigger	-	MU20 event passed + triggered tracks

$W \rightarrow \mu\nu$ selection

Acceptance	W truth muon	$p_T > 15 \text{ GeV}, \eta < 2.5$
Kinematics	1 offline Staco muon	$p_T > 20 \text{ GeV}, \eta < 2.5$
Isolation	Offline Staco muon	$\Sigma N^{\text{ID}} < 6, \Sigma P_T^{\text{ID}} < 5 \text{ GeV}$ in 0.4 cone
Trigger	-	MU20 event passed + triggered track