Summary of trigger conditions

RP position 6σ => t_{min} ~ 0.007 GeV^2

Tech Bit 52: RP V left .and.right
Tech Bit 53: T2 left or right
Tech Bit 54: Zero Bias ~ 60hz

RUN:198468$_{cms}$/8341$_{totem}$ ~ 2.5M events

Trigger on bunch 100$_{totem}$/101$_{cms}$

(+ non colliding bunches)

RP Alignm, Adjust, 3 b

Stable beam, 112 b

RP position 9.5σ => t_{min} ~ 0.015 GeV^2

Tech Bit 52: RP left .and.right
Tech Bit 53: T2 left or right
Tech Bit 54: Zero Bias ~ 64hz

RUN:198901$_{cms}$/8368$_{totem}$ ~ 1M events

Trigger on bunch 648$_{totem}$/649$_{cms}$

(+ non colliding bunches)

Tech Bit 52: RP left .and.right
Tech Bit 53: T2 left or right -> prescale 5

RUN:198902$_{cms}$/8369-8371$_{totem}$ ~ 15M events

*Trigger on bunch 648-2990$_{totem}$*

(+ non colliding bunches)

RUN:198903$_{cms}$/8372$_{totem}$ ~ 12M events

Trigger on bunch 26-648-2990$_{totem}$

(+ non colliding bunches)

16							
17	Fill with 156 bunches, XX colliding + Y singles						
18	table for PU=7%		PRESCALE COL. 0 - Xsection meas– Trigger on single				Datasets
19				L1 rate	L1	HLT	HLT rate	
20	HLT		L1 seed	for 1.7E30 (Hz)	presc	presc	for 1.7E30 (Hz)	
21	HLT_RomanPots_Tech52		Tech bit 52	200	1	1	200	LP_RomanPots
22	HLT_L1Tech53_MB_1/2/3		Tech bit 53	700	1	1	700	LP_MinBias1/2/3
23	HLT_T1minbias_Tech55		Tech bit 55		1	1	filling up rate	LP_MinBias1
24	HLT_L1Tech54_ZeroBias		Tech bit 54	11000	1	1	filling up rate	LP_ZeroBias1
25							<900 Hz	TOTAL

| 27	Fill with 112 bunches, XX colliding + Y singles						
28	table for PU=7%		PRESCALE COLUMN 2 – CMS/TOTEM based trigger				Datasets
29				L1 rate	L1	HLT	HLT rate	
30	HLT		L1 seed	for 1.7E30 (Hz)	presc	presc	for 1.7E30 (Hz)	
31	HLT_L1DoubleMu0		DoubleMu0	30	1	1	30	LP_ExclEGMU
32	HLT_L1DoubleJet20_1/2		DoubleJet20	275	1	1	275	LP_Jets1/LP_Jets2
33	HLT_L1DoubleJet20_RP		DoubleJet20_RP	<300	1	1	<300	LP_Jets1
34	HLT_L1DoubleEG3_FwdVeto		DoubleEG3_FwdVeto	1	1	1	1	LP_ExclEGMU
35	HLT_L1Tech40_BPTXAND_1		Tech40&BPTX_AND	86240	1	1	86240	LP_MinBias1
36	HLT_L1Tech_HF9OR10		Tech9 OR Tech10	86240	1	1	86240	LP_MinBias1
37	HLT_RomanPots_Tech52		Tech bit 52	250	1	1	250	LP_RomanPots
38	HLT_L1Tech53_MB_1**		Tech bit 53	200	1	1	200	LP_MinBias1/2/3
39	ZeroBias (BPTX)			1232000	20000	1	61.6	LP_ZeroBias1
40				816.6			816.6	TOTAL
41	** presc by TOTEM = 3						

Sync test:

/castor/cern.ch/totem/offline/CMSTOTEM/CMSNtuples/HighBeta/raw_198903_LS1_20_Jets_reducedNT.root

/castor/cern.ch/totem/offline/CMSTOTEM/TotemNtuples/HighBeta/8372.0-99_ntuple.root
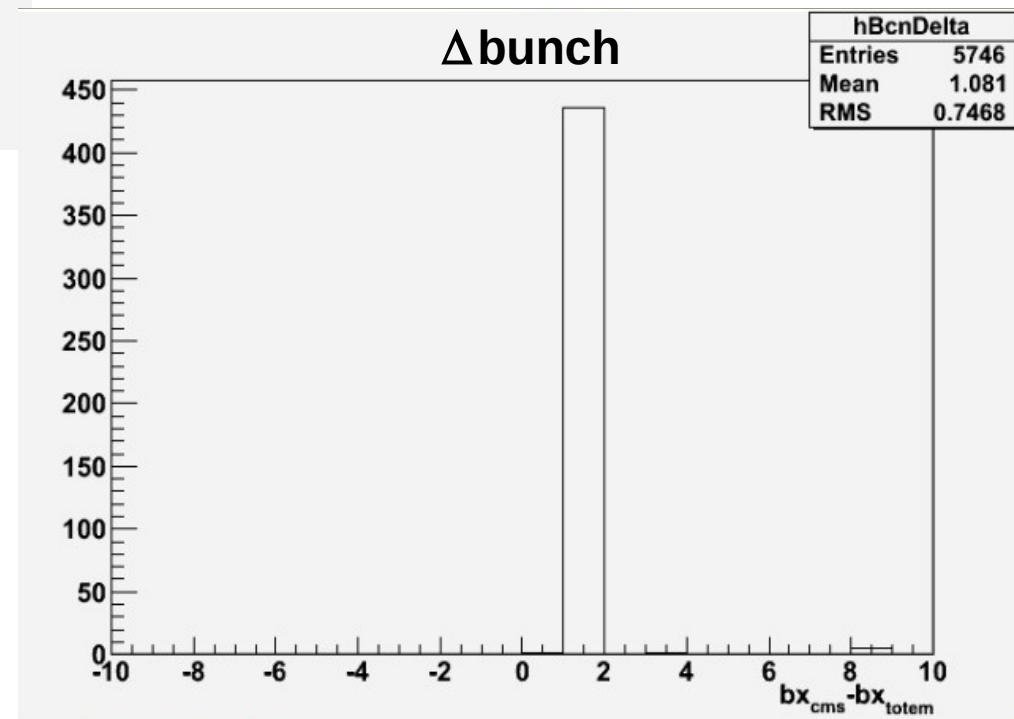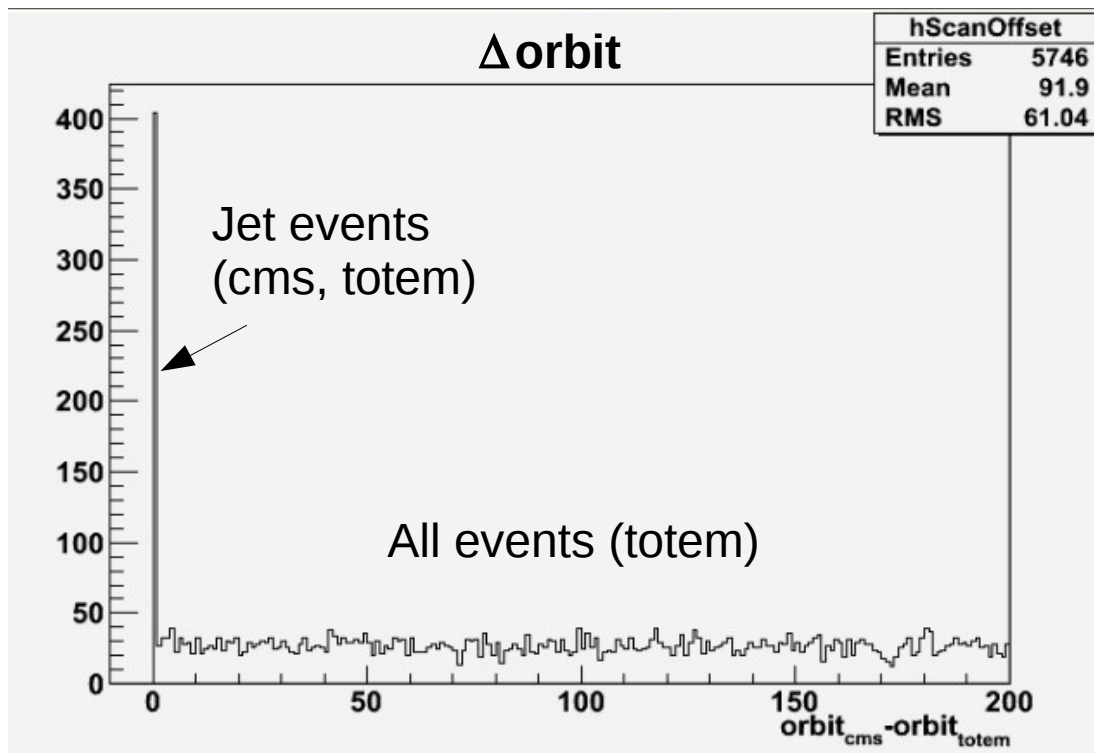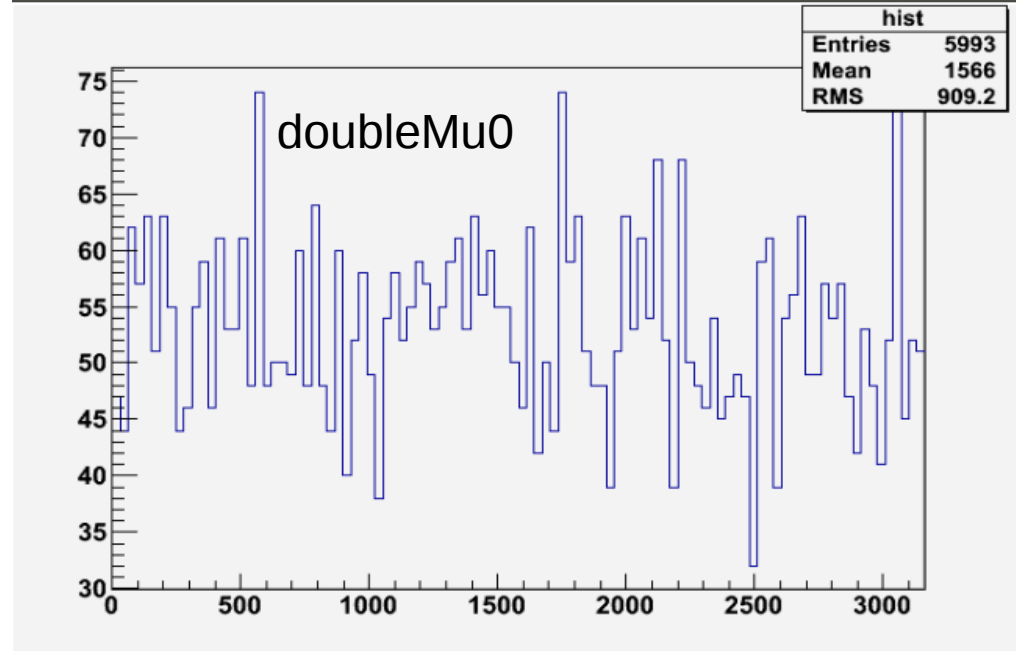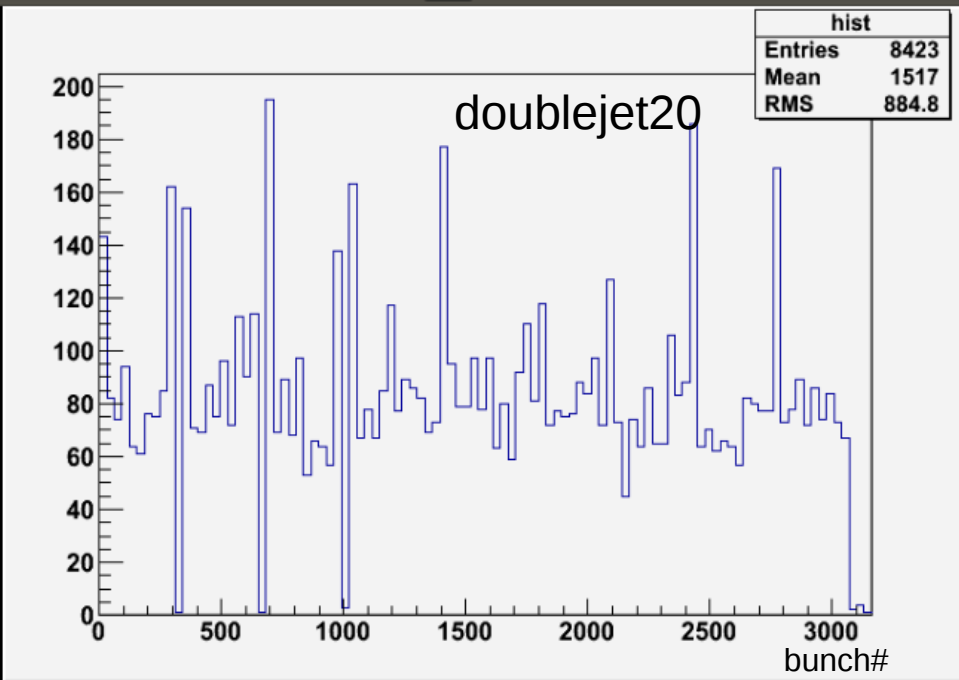
DATA: /castor/cern.ch/totem/offline/CMSTOTEM/CMSNtuples/HighBeta/UABaseTree_CMS-TOTEM_ExpressPhysics_HighBetaJuly2012-Run198903_uaBaseTree-v2_mergedTTree.root
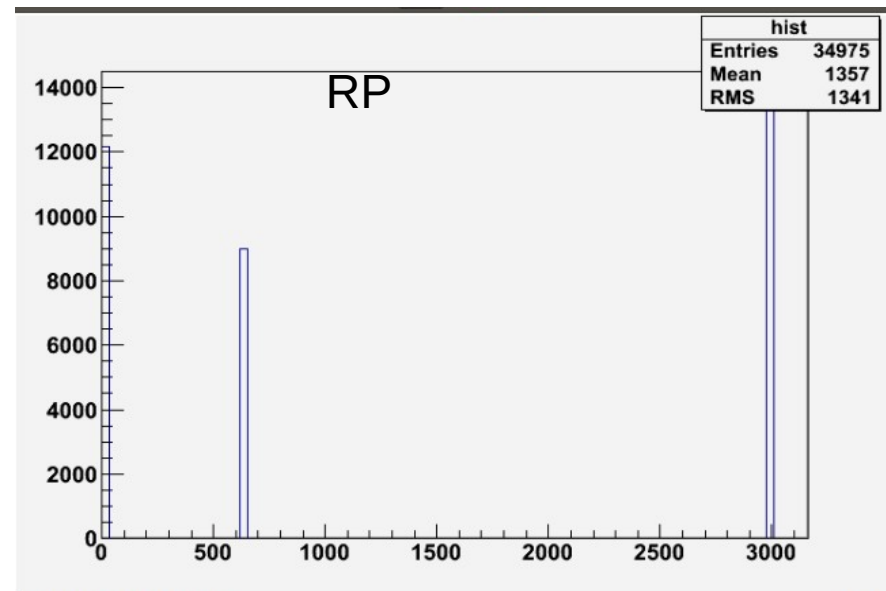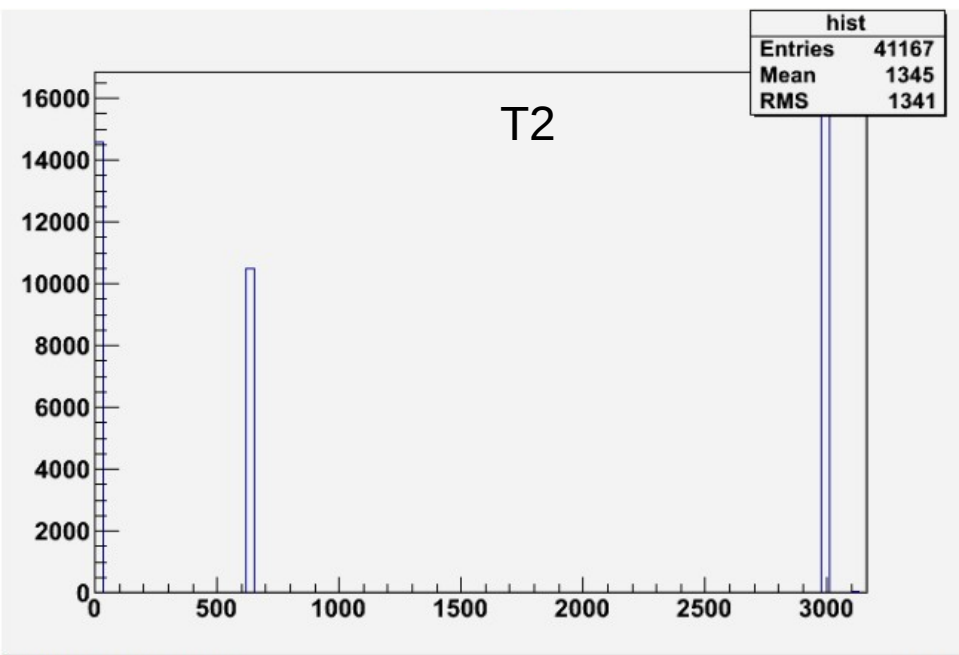
Comments & Discussion

The SW for the merging is far too be final :

- the sync procedure works

- the real merging has never been used for large samples

> ==> time consuming
> *Jakub can work on that*
> ==> preparation of the input from CMS still very confusing (at least to me)
> *Katerina is the master of that the moment*

- final ntuple from TOTEM ready (T1,T2,RP)

- final ntuple from CMS (UA format): ?

- Gather user requirements : different ntuples for different analysis?
                                              which trigger stream to merge?
                                              ....