



PRS muon meeting  
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## **Short update on MC production and L2 reconstruction**

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## Datasets Signal:

Dataset	num of events	where	note
mu_gg_bbh200_2tau_muX	9997	LEGNARO	with TK digi
mu_h120_WW2mu	9373	PADOVA	"
mu_h140_WW2mu	5429	PADOVA	"
mu_h160_WW2mu	8550	PADOVA	"
mu_h180_WW2mu	5542	PADOVA	new
mu_h200_WW2mu	7459	PADOVA	new
mu_h120_ZZ4mu	7248	PADOVA	new
mu_h150_ZZ4mu	6407	PADOVA	new
mu_h200_ZZ4mu	5146	PADOVA	new
mu_h300_ZZ4mu	5752	PADOVA	new
mu_h500_ZZ4mu	8140	PADOVA	new

- OWNER muon2x1033FullPileUp\_O512\_PD
- Tracker digitization of mu\_W1mu started

## Update on L2 reconstruction code:

- Bug fix in left/right ambiguity solving for MuBarSegment in eta/R projection: wrong or no assignement for segments with  $\phi \sim 0$  or  $\phi \sim \pi$ : was  $\theta = \arctan(y/z)$  and not  $\arctan(r/z)$ . (ORCA 520)
- Bug fix / improvement in recHit collection: tracks with e.g. 1 DT and 3 RPC were rejected and a track from two chambers only used (1 DT and 1 RPC): now we correctly ask for  $N \geq 2$  chambers with at least one “tracking” (DT or CSC) (ORCA 520).
- Efficiency loss in  $|\eta| > 2.2$  under study, not yet understood.
- By-product: splitting of MuonTrajectoryBuilder in several classes: increase modularity, readeability, and debugging of the steering. Soon completed: to be committed asap.