

Selection criteria	2018 data (61.3 fb ⁻¹)				$\Phi(125 \text{ GeV}) \rightarrow 2X(20 \text{ GeV}, c\tau = 13 \text{ cm}) \rightarrow \mu\mu$			
	$N(\text{total})$	STA-STA	TMS-TMS	STA-TMS	$N(\text{total})$	STA-STA	TMS-TMS	STA-TMS
Generated events		-	-	-	200,000	-	-	-
Triggered events with > 1 STA muon	43,866,513	-	-	-	26,921	-	-	-
Good primary vertex	43,792,887	-	-	-	26,921	-	-	-
$N(\text{nearly parallel STA muons}) < 4$	43,625,307	-	-	-	26,891	-	-	-
$N(\text{CSC+DT hits}) > 12$	40,743,847	-	-	-	25,962	-	-	-
STA-to-TMS muon association; common vertex fit	39,464,340	640,656	39,203,774	6,297,846	25,321	8,653	13,122	10,808
$\sigma_{p_T}/p_T < 1$	39,446,024	622,432	39,203,251	6,251,685	25,095	8,419	13,115	10,717
$p_T > 10 \text{ GeV}$	38,185,038	67,143	37,940,402	295,845	23,579	6,530	11,215	6,034
$\chi^2_{\text{trk}}/\text{ndof} < 2.5$ (STA muons)	38,158,648	55,941	-	251,799	23,170	6,240	-	5,898
$N(\text{DT hits for muons in barrel}) > 18$ (STA muons)	38,129,584	41,245	-	210,780	22,744	5,935	-	5,766
$N(\text{matched muon segments}) > 1$ (TMS muons)	37,938,365	-	37,749,520	209,925	22,428	-	11,030	5,625
Tracker-muon requirement (TMS muons)	37,550,142	-	37,363,120	206,715	21,313	-	10,469	5,044
Pairing criteria	37,534,580	35,354	37,336,215	163,529	21,069	5,788	10,415	4,868
$m_{\mu\mu} > 10 \text{ GeV}$	32,325,436	29,521	32,174,309	121,850	20,758	5,680	10,305	4,774
$\chi^2_{\text{vertex}} < 10$ (STA-TMS: < 20)	28,379,620	27,602	28,239,041	113,164	19,216	5,483	9,169	4,564
$\cos \alpha > -0.9$ (TMS-TMS: > -0.99)	27,669,336	591	27,567,624	101,235	19,211	5,483	9,169	4,559
$L_{xy}/\sigma_{L_{xy}} > 6$ (STA-TMS: > 3)	717,412	218	703,449	13,750	18,066	4,948	9,145	3,973
DCA < 15 cm	715,264	177	703,377	11,712	17,522	4,609	9,143	3,770
$N(\text{DT hits for muons in barrel}) > 24$ if $ \Delta\eta_{\mu\mu} < 0.1$	715,205	118	-	-	17,341	4,428	-	-
$N(\text{dimuon segments}) > 5$ if $ \Delta\eta_{\mu\mu} < 0.1$	715,200	113	-	-	17,314	4,401	-	-
$N(\text{dimuon segments}) > 4$	715,188	101	-	-	17,258	4,345	-	-
$\min(d_0/\sigma_{d_0}) > 6$ (TMS muons)	116,233	-	113,849	2,283	17,044	-	8,979	3,720
$I_{\text{trk}}^{\text{rel}} < 0.075$ (TMS muons)	714	-	386	227	16,427	-	8,443	3,639
$\Delta N(\text{pixel hits}) < 3$	655	-	327	-	16,311	-	8,327	-
$\max(p_T) > 25 \text{ GeV}$	519	-	191	-	16,083	-	8,099	-
$N(\text{hits before vertex}) < 3$ (STA-TMS: < 6)	431	-	189	141	15,981	-	8,044	3,592
$N(\text{tracker layers}) + \text{floor}(L_{xy} [\text{cm}]/15) > 5$	404	-	185	118	15,947	-	8,028	3,574
Global-muon requirement	387	-	-	101	15,920	-	-	3,547
$ \phi_{\mu}^{\text{TMS}} < 2.9$	319	-	-	33	15,915	-	-	3,542
$ \Delta t < 12 \text{ ns}$ (STA muons)	259	53	-	21	15,906	4,342	-	3,536
Muon direction: inside-out	242	36	-	-	15,877	4,313	-	-
No back-to-back muon with $ \Delta t_{\text{b2b}} > 20 \text{ ns}$	227	21	-	-	15,834	4,270	-	-
Opposite muon charges	177	16	147	14	15,777	4,250	8,028	3,499
$ \Delta\Phi < \pi/4$	60	16	36	8	15,758	4,249	8,028	3,481
$6 < \min(d_0/\sigma_{d_0}) < 10$	-	-	30	-	-	-	71	-
$10 < \min(d_0/\sigma_{d_0}) < 20$	-	-	5	-	-	-	185	-
$\min(d_0/\sigma_{d_0}) > 20$	-	-	1	-	-	-	7,772	-