

Vertex

ATLAS Internal Simulation— MC $Z' \rightarrow \mu\mu$, $m_{Z'} = 250 \text{ GeV}$, $c\tau = 100 \text{ mm}$ — MC $Z' \rightarrow \mu\mu$, $m_{Z'} = 1000 \text{ GeV}$, $c\tau = 100 \text{ mm}$

5943

3742

2608

1973

2453

2453

2435

2384

2384

2384

2382

2362

2362

2362

2358

1888

1888

1885

1882

1882

1882

1881

1858

1858

1858

1760

Vertex

 $\mu\mu$ candidate

MuonID

Overlap+Kinematic

nTracks=2

Trig. Matching

 $\chi^2 / \text{DOF} < 2$ Displacement $< 2 \text{ mm}$ $\mu^+\mu^-$

DisabledModule

MaterialVeto

 $m > 10 \text{ GeV}$

FilterMatching

Matching (excluding mu)