

SR noZb: (ATLAS_CONF_2013_035)

- Process: $pp \rightarrow \tilde{\chi}_1^\pm \tilde{\chi}_2^0 \rightarrow (W^\pm \chi_1^0)(Z \tilde{\chi}_1^0)$.
- Mass: $m_{\tilde{\chi}_1^\pm} = m_{\tilde{\chi}_2^0} = 150$ GeV, $m_{\tilde{\chi}_1^0} = 75$ GeV.
- The number of events: $5 \cdot 10^4$.
- Event Generator: Herwig++ 2.5.2.

| # | cut name | ϵ_{Exp} | ϵ_{Atom} | $\frac{\text{Atom}}{\text{Exp}}$ | $\frac{(\text{Exp}-\text{Atom})}{\text{Error}}$ | #/? | R_{Exp} | R_{Atom} | $\frac{\text{Atom}}{\text{Exp}}$ | $\frac{(\text{Exp}-\text{Atom})}{\text{Error}}$ |
|---|---------------------|-------------------------|--------------------------|----------------------------------|---|-----|------------------|-------------------|----------------------------------|---|
| 0 | Lepton multiplicity | 100.0 ± 0.71 | 100.0 ± 13.09 | | | -1 | \pm | \pm | | |
| 1 | SFOS requirement | 99.65 ± 0.71 | 98.28 ± 12.98 | 0.99 | -0.11 | 0 | 1.0 ± 0.01 | 0.98 ± 0.13 | 0.99 | -0.11 |
| 2 | b -jet veto | 92.83 ± 0.68 | 93.1 ± 12.64 | 1.0 | 0.02 | 1 | 0.93 ± 0.01 | 0.95 ± 0.13 | 1.02 | 0.12 |
| 3 | Z veto | 86.49 ± 0.66 | 87.93 ± 12.28 | 1.02 | 0.12 | 2 | 0.93 ± 0.01 | 0.94 ± 0.13 | 1.01 | 0.1 |
| 4 | SRnoZb: MET > 75 | 23.67 ± 0.34 | 22.41 ± 6.21 | 0.95 | -0.2 | 3 | 0.27 ± 0.0 | 0.25 ± 0.07 | 0.93 | -0.26 |
| 5 | SRnoZb: mSFOS 60-81 | 11.92 ± 0.24 | 13.79 ± 4.87 | 1.16 | 0.38 | 4 | 0.5 ± 0.01 | 0.62 ± 0.22 | 1.22 | 0.51 |
| 6 | SRnoZb: SRnoZc veto | 11.57 ± 0.24 | 13.79 ± 4.87 | 1.19 | 0.46 | 5 | 0.97 ± 0.02 | 1.0 ± 0.35 | 1.03 | 0.08 |

Table 1: The cut-flow table for the noZb signal region.