## 0.1 $\tilde{\chi}_1^{\pm}(200) \to W^{\pm} \tilde{\chi}_1^0(0)$ (ATLAS\_2014\_I1286761 (1403.5294))

• Process:  $\tilde{\chi}_1^+ \tilde{\chi}_1^- : \tilde{\chi}_1^{\pm} \to W^{\pm} \tilde{\chi}_1^0$ .

• The number of events:  $5 \cdot 10^4$ .

• Event Generator: Herwig++ 2.5.2.

| # | cut name                                      | $\epsilon_{ m Exp}$ | $\epsilon_{	ext{Atom}}$ | Atom<br>Exp | $\frac{\text{(Exp-Atom)}}{\text{Error}}$ | #/? | $R_{\rm Exp}$   | $R_{\mathrm{Atom}}$ | Atom<br>Exp | (Exp-Atom)<br>Error |
|---|---|---------------------|-------------------------|-------------|--|-----|-----------------|---------------------|-------------|---------------------|
| 0 | $= 2 \text{ OSlep } p_T > 35, 20: \text{ SF}$ | 100.0               | 100.0                   |             |  |     |                 |                     |             |                     |
| 1 | Jet Veto: SF                                  | $43.81 \pm 1.66$    | $52.82 \pm 2.56$        | 1.21        | 2.95                                     | 0   | $0.44 \pm 0.02$ | $0.53 \pm 0.03$     | 1.21        | 2.95                |
| 2 | Z Veto: SF                                    | $38.42 \pm 1.55$    | $43.54 \pm 2.33$        | 1.13        | 1.83                                     | 1   | $0.88 \pm 0.04$ | $0.82 \pm 0.04$     | 0.94        | -0.93               |
| 3 | WWc: $m_{T2} > 100$ : SF                      | $5.96 \pm 0.61$     | $4.14 \pm 0.72$         | 0.69        | -1.93                                    | 2   | $0.16 \pm 0.02$ | $0.1 \pm 0.02$      | 0.61        | -2.62               |

Table 1: The cut-flow table for the same flavour channel.

| # | cut name                                      | $\epsilon_{\mathrm{Exp}}$ | $\epsilon_{	ext{Atom}}$ | Atom<br>Exp | $\frac{\text{(Exp-Atom)}}{\text{Error}}$ | #/? | $R_{\rm Exp}$   | $R_{\mathrm{Atom}}$ | Atom<br>Exp | (Exp-Atom)<br>Error |
|---|---|---------------------------|-------------------------|-------------|--|-----|-----------------|---------------------|-------------|---------------------|
| 0 | $= 2 \text{ OSlep } p_T > 35, 20: \text{ DF}$ | 100.0                     | 100.0                   |             |  |     |                 |                     |             |                     |
| 1 | Jet Veto: DF                                  | $43.32 \pm 1.63$          | $55.0 \pm 2.58$         | 1.27        | 3.83                                     | 0   | $0.43 \pm 0.02$ | $0.55 \pm 0.03$     | 1.27        | 3.83                |
| 2 | Z Veto: DF                                    | $43.32 \pm 1.63$          | $55.0 \pm 2.58$         | 1.27        | 3.83                                     | 1   | $1.0 \pm 0.04$  | $1.0 \pm 0.05$      | 1.0         | 0.0                 |

Table 2: The cut-flow table for the different flavour channel.