

| Background             |                            |                           |                |
|------------------------|----------------------------|---------------------------|----------------|
|                        | $\sigma_b$ before cut (fb) | $\sigma_b$ after cut (fb) | $(\epsilon_b)$ |
|                        | 8200000                    | 14678                     | 0.00179        |
| Signal ( $I_W = 1$ )   |                            |                           |                |
| $m_*$ (GeV)            | $\sigma_s$ before cut (fb) | $\sigma_s$ after cut (fb) | $(\epsilon_s)$ |
| 500                    | 7782                       | 5416.74                   | 0.69606        |
| 1000                   | 1277                       | 1064.33                   | 0.83346        |
| 1500                   | 344.6                      | 298.489                   | 0.86619        |
| 2000                   | 107.7                      | 95.1185                   | 0.88318        |
| 2500                   | 39.05                      | 34.7037                   | 0.8887         |
| 3000                   | 13.5                       | 12.0555                   | 0.893          |
| 3500                   | 4.281                      | 3.84352                   | 0.89781        |
| 4000                   | 1.424                      | 1.28213                   | 0.90037        |
| 4500                   | 0.4957                     | 0.446665                  | 0.90108        |
| 5000                   | 0.1799                     | 0.162518                  | 0.90338        |
| Signal ( $I_W = 3/2$ ) |                            |                           |                |
| $m_*$ (GeV)            | $\sigma_s$ before cut (fb) | $\sigma_s$ after cut (fb) | $(\epsilon_s)$ |
| 500                    | 11080                      | 5819.11                   | 0.52519        |
| 1000                   | 2240                       | 1649.89                   | 0.73656        |
| 1500                   | 806.3                      | 646.065                   | 0.80126        |
| 2000                   | 343.2                      | 283.964                   | 0.8274         |
| 2500                   | 159.9                      | 134.147                   | 0.83894        |
| 3000                   | 60.25                      | 51.8626                   | 0.86079        |
| 3500                   | 23.55                      | 20.0983                   | 0.85343        |
| 4000                   | 9.347                      | 7.57986                   | 0.81094        |
| 4500                   | 3.191                      | 2.60797                   | 0.81729        |
| 5000                   | 1.043                      | 0.845737                  | 0.81087        |