| Selection for tH | Signal | QCD Multijet | $t\bar{t}$ | Other backgrounds |
|---|---|---|---|---|
| Basic selection ($m_{b\bar{b}} > 100\,\mathrm{GeV}$) | $23.1 \pm 0.9$ | $9360 \pm 810$ | $2612 \pm 28$ | $353 \pm 23$ |
| Relative $H_{\mathrm{T}} > 0.4$ | 81.4% | 42.8% | 51.9% | 52.9% |
| $\mathrm{Max}(\chi^2) < 3.0$ | 54.3% | 14.1% | 25.1% | 21.8% |
| $\Delta R(b_{\mathrm{H}}, b_{\mathrm{H}}) < 1.1$ | 44.4% | 7.5% | 11.9% | 8.9% |
| $\chi^2_{\mathrm{H}} < 1.5$ | 39.8% | 4.9% | 9.3% | 7.1% |
| $\Delta R(j_{\mathrm{W}}, j_{\mathrm{W}}) < 1.75$ | 33.7% | 3.2% | 7.2% | 5.6% |
| $\Delta R(b_{\mathrm{t}}, W) < 1.2$ | 25.7% | 1.9% | 4.5% | 2.5% |
| Full selection | $5.9 \pm 0.4$ | $181 \pm 52$ | $116.5 \pm 6.1$ | $9.3 \pm 0.6$ |
| Selection for tZ | Signal | QCD Multijet | $t\bar{t}$ | Other backgrounds |
| Basic selection ($m_{b\bar{b}} < 100\,\mathrm{GeV}$) | $5.7 \pm 0.2$ | $6810 \pm 630$ | $1270 \pm 17$ | $223 \pm 24$ |
| Relative $H_{\mathrm{T}} > 0.4$ | 86.9% | 48.5% | 47.2% | 57.5% |
| $\mathrm{Max}(\chi^2) < 3.0$ | 53.3% | 15.9% | 24.1% | 28.8% |
| $\Delta R(b_{\mathrm{Z}}, b_{\mathrm{Z}}) < 1.1$ | 51.1% | 11.7% | 16.4% | 22.7% |
| $\chi^2_{\mathrm{Z}} < 1.0$ | 45.0% | 7.3% | 11.5% | 18.4% |
| $\Delta R(j_{\mathrm{W}}, j_{\mathrm{W}}) < 1.75$ | 37.6% | 5.2% | 9.6% | 9.9% |
| $\Delta R(b_{\mathrm{t}}, W) < 1.2$ | 28.8% | 1.5% | 5.7% | 5.5% |
| Full selection | $1.6 \pm 0.1$ | $103 \pm 38$ | $72.7 \pm 4.7$ | $8.1 \pm 3.9$ |