

| Source                      | Uncertainty (%) |
|-----------------------------|-----------------|
| Lepton ID efficiencies      | 3.4             |
| Jet energy scale            | 1.6             |
| b tagging efficiency        | 1.5             |
| Pileup reweighting          | 0.7             |
| ME scale, $t\bar{t}$        | 0.6             |
| ME scale, backgrounds       | 0.2             |
| PDF and $\alpha_S$          | 0.3             |
| ME/PS matching              | 1.1             |
| ISR scale                   | 0.4             |
| FSR scale                   | 0.1             |
| Single-t background         | 0.6             |
| Z+jets background           | 0.9             |
| W+jets background           | 0.4             |
| Diboson background          | 0.1             |
| Nonprompt background        | 0.2             |
| Statistical uncertainty     | 0.5             |
| Combined uncertainty        | 4               |
| Jet energy scale (external) | 2               |
| Integrated luminosity       | 6               |