| Process | Expected $[\mathrm{pb}]$ | Observed $[\mathrm{pb}]$ |
| :--- | :--- | :--- |


| $W^{+}+b \bar{b}$ | $0.081{ }_{-0.013}^{+0.022}{ }_{-0.018}^{+0.040}$ | $0.121{ }_{-0.018}^{+0.019}{ }_{-0.020}^{+0.029}$ | $7.1 \sigma$ |
| :---: | :---: | :---: | :---: |
| $W^{-}+b \bar{b}$ | $0.056{ }_{-0.010}^{+0.014}{ }_{-0.013}^{+0.018}$ | $0.093{ }_{-0}^{+0.017}{ }_{-0.016}^{+0.018}{ }^{+0.023}$ | $5.6 \sigma$ |
| $W^{+}+c \bar{c}$ | $0.123{ }_{-0.020}^{+0.034}{ }_{-0.027}^{+0.060}$ | $0.24{ }_{-0}^{+0.08}{ }^{+0.08}{ }_{-0.04}^{+0.08}$ | $4.7 \sigma$ |
| $W^{-}+c \bar{c}$ | $0.084{ }_{-0.015}^{+0.021}{ }_{-0.020}^{+0.027}$ | $0.133_{-0.062}^{+0.073}{ }_{-0.022}^{+0.050}$ | $2.5 \sigma$ |
| $t \bar{t}$ | $0.045{ }_{-0.007}^{+0.008}{ }_{-0.010}^{+0.012}$ | $0.05{ }_{-0.01}{ }_{-0.01}^{+0.02}{ }_{-0.01}^{+0.02}$ | $4.9 \sigma$ |

