

| Systematic Effect            | SR1aX | SR1aY | SR1bX | SR1bY | SR1cX | SR1cY | SR2aX | SR2aY | SR2bX | SR2bY | SR2cX | SR2cY |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| $W$ +jets- $p_T$ reweighting | 4.5   | 4.8   | 4.9   | 4.7   | 6.2   | 10.2  | 2.3   | 3.7   | 1.9   | 1.7   | 2.2   | 4.4   |
| $t\bar{t}$ -ISR reweighting  | 0.2   | 0.1   | 0.2   | 0.2   | 0.4   | 0.5   | <0.1  | 0.2   | 0.1   | 0.1   | 0.8   | 0.7   |
| Pileup                       | 0.1   | 0.2   | 0.2   | 0.5   | 1.8   | 0.7   | 0.1   | 0.2   | 0.7   | 0.7   | 2.0   | 1.5   |
| b-tag efficiency light jets  | <0.1  | <0.1  | <0.1  | <0.1  | 0.1   | 0.2   | <0.1  | 0.3   | 0.1   | 0.2   | 0.5   | 0.9   |
| b-tag efficiency heavy jets  | <0.1  | 0.1   | <0.1  | 0.1   | 0.1   | 0.1   | 0.1   | <0.1  | <0.1  | 0.1   | 0.2   | 0.4   |
| Jet energy scale             | 2.1   | 1.2   | 1.6   | 1.6   | 2.4   | 1.6   | 0.9   | 0.9   | 1.3   | 1.4   | 1.2   | 0.1   |
| Jet energy resolution        | 0.3   | 0.1   | 0.5   | 0.3   | 0.2   | 0.2   | 0.1   | 0.4   | 0.2   | 0.2   | 1.1   | 0.3   |