

|                     | Channel  | Measured                              | MG5_aMC<br>LO<br>NNPDF 3.0<br>CUETP8M1 | MG5_aMC<br>LO<br>NNPDF 3.1<br>CP5 | MG5_aMC<br>NLO<br>NNPDF 3.0<br>CUETP8M1 | MG5_aMC<br>NLO<br>NNPDF 3.1<br>CP5 | SHERPA |
|---------------------|----------|---------------------------------------|--|-----------------------------------|---|------------------------------------|--------|
| $Z + \geq 1$ b jet  | ee       | $6.45 \pm 0.06 \pm 0.49 \pm 0.17$     | 6.25                                   | 6.33                              | $7.86 \pm 0.52$                         | $7.05 \pm 0.48$                    | 8.05   |
|                     | $\mu\mu$ | $6.55 \pm 0.05 \pm 0.39 \pm 0.19$     | 6.26                                   | 6.34                              | $7.86 \pm 0.51$                         | $7.02 \pm 0.47$                    | 7.98   |
|                     | $ll$     | $6.52 \pm 0.04 \pm 0.40 \pm 0.14$     | 6.25                                   | 6.34                              | $7.86 \pm 0.51$                         | $7.03 \pm 0.47$                    | 8.02   |
| $Z + \geq 2$ b jets | ee       | $0.66 \pm 0.05 \pm 0.07 \pm 0.02$     | 0.62                                   | 0.72                              | $0.89 \pm 0.08$                         | $0.77 \pm 0.07$                    | 0.84   |
|                     | $\mu\mu$ | $0.65 \pm 0.04 \pm 0.06 \pm 0.02$     | 0.64                                   | 0.71                              | $0.91 \pm 0.09$                         | $0.77 \pm 0.07$                    | 0.84   |
|                     | $ll$     | $0.65 \pm 0.03 \pm 0.07 \pm 0.02$     | 0.63                                   | 0.71                              | $0.90 \pm 0.09$                         | $0.77 \pm 0.07$                    | 0.84   |
| Ratio               | ee       | $0.102 \pm 0.008 \pm 0.008 \pm 0.004$ | 0.100                                  | 0.113                             | $0.113 \pm 0.016$                       | $0.110 \pm 0.013$                  | 0.104  |
|                     | $\mu\mu$ | $0.100 \pm 0.006 \pm 0.006 \pm 0.004$ | 0.103                                  | 0.112                             | $0.116 \pm 0.016$                       | $0.110 \pm 0.013$                  | 0.105  |
|                     | $ll$     | $0.100 \pm 0.005 \pm 0.007 \pm 0.003$ | 0.102                                  | 0.112                             | $0.114 \pm 0.016$                       | $0.110 \pm 0.013$                  | 0.105  |