

| $\sqrt{s_{NN}}$ (GeV) | Cumulant | Total syst. | DCA | nHitsFit | $N_{\sigma,p}$ | m^2 | Efficiency |
|-----------------------|----------|-------------|------|----------|----------------|-------|------------|
| 7.7 | C_1 | 2.42 | 0.85 | 0.78 | 0.99 | 0.028 | 1.88 |
| | C_2 | 2.03 | 0.72 | 0.60 | 0.82 | 0.032 | 1.61 |
| | C_3 | 1.65 | 0.60 | 0.97 | 0.54 | 0.31 | 1.02 |
| | C_4 | 16.20 | 5.56 | 12.54 | 6.40 | 2.68 | 5.11 |
| 11.5 | C_1 | 2.82 | 1.76 | 1.03 | 1.13 | 0.033 | 1.59 |
| | C_2 | 2.34 | 1.44 | 0.73 | 0.99 | 0.020 | 1.37 |
| | C_3 | 1.36 | 0.64 | 0.20 | 0.85 | 0.035 | 0.82 |
| | C_4 | 7.37 | 2.28 | 4.10 | 4.94 | 2.60 | 1.06 |
| 14.5 | C_1 | 1.72 | 0.77 | 0.54 | 0.76 | 0.03 | 1.22 |
| | C_2 | 1.60 | 0.69 | 0.49 | 0.74 | 0.021 | 1.13 |
| | C_3 | 1.16 | 0.52 | 0.44 | 0.51 | 0.047 | 0.78 |
| | C_4 | 8.06 | 2.89 | 3.10 | 5.41 | 0.71 | 4.15 |
| 19.6 | C_1 | 1.46 | 0.60 | 0.62 | 0.56 | 0.045 | 1.03 |
| | C_2 | 1.46 | 0.62 | 0.62 | 0.57 | 0.041 | 1.02 |
| | C_3 | 0.68 | 0.36 | 0.26 | 0.23 | 0.13 | 0.44 |
| | C_4 | 3.65 | 0.86 | 1.99 | 2.58 | 0.59 | 0.89 |
| 27 | C_1 | 1.20 | 0.51 | 0.53 | 0.47 | 0.025 | 0.83 |
| | C_2 | 1.44 | 0.67 | 0.63 | 0.57 | 0.027 | 0.96 |
| | C_3 | 0.62 | 0.33 | 0.27 | 0.23 | 0.035 | 0.39 |
| | C_4 | 3.10 | 1.58 | 1.36 | 1.80 | 0.38 | 1.36 |
| 39 | C_1 | 0.94 | 0.39 | 0.45 | 0.35 | 0.026 | 0.64 |
| | C_2 | 1.48 | 0.67 | 0.67 | 0.59 | 0.033 | 0.97 |
| | C_3 | 0.51 | 0.29 | 0.21 | 0.17 | 0.04 | 0.313 |
| | C_4 | 3.35 | 1.00 | 2.76 | 1.43 | 0.20 | 0.65 |
| 54.4 | C_1 | 0.98 | 0.47 | 0.39 | 0.53 | 0.02 | 0.55 |
| | C_2 | 1.95 | 1.02 | 0.77 | 1.05 | 0.04 | 1.04 |
| | C_3 | 0.51 | 0.27 | 0.19 | 0.27 | 0.01 | 0.28 |
| | C_4 | 1.42 | 0.53 | 0.22 | 1.20 | 0.10 | 0.49 |
| 62.4 | C_1 | 1.04 | 0.45 | 0.49 | 0.35 | 0.044 | 0.71 |
| | C_2 | 2.15 | 1.05 | 1.087 | 0.79 | 0.11 | 1.31 |
| | C_3 | 0.58 | 0.14 | 0.22 | 0.30 | 0.081 | 0.41 |
| | C_4 | 3.99 | 2.40 | 2.30 | 1.38 | 1.21 | 1.23 |
| 200 | C_1 | 0.39 | 0.19 | 0.24 | 0.11 | 0.01 | 0.22 |
| | C_2 | 2.42 | 1.11 | 1.53 | 0.77 | 0.087 | 1.31 |
| | C_3 | 0.39 | 0.24 | 0.18 | 0.19 | 0.074 | 0.14 |
| | C_4 | 4.89 | 2.69 | 3.07 | 1.80 | 1.41 | 1.42 |

Table 1: Total systematic uncertainty¹ as well as the absolute uncertainties from individual sources, such as DCA and nHitsFit, for net-proton C_n in 0–5% central Au+Au collisions at $\sqrt{s_{NN}} = 7.7 - 200$ GeV. The total systematic uncertainties are obtained by adding the uncertainties from individual sources in quadrature.