**The Inclusive Three-jet Production Cross Section in the Dalitz Plane**

- Using all kinematically allowed bins in the Dalitz plane, the measured three-jet production cross section is $\sigma = 466 \pm 3(\text{stat.})^{+207}_{-70}(\text{syst.})$ pb. This is consistent with the earlier CDF measurement (F. Abe et al., PRL 80, 3461 (1998)).
- Using all kinematically allowed bins in the Dalitz plane with $X_3 < 0.98$, the total three jet cross section is $\sigma = 458 \pm 3(\text{stat.})^{+203}_{-68}(\text{syst.})$ pb. This is consistent with the earlier CDF measurement as well.
- When all bins with $X_3 < 0.98$ in the Dalitz plane are used, and for CTEQ4M with $\alpha_s = 0.1155$, $\sigma_{\text{theory}} = 473 \pm 2(\text{stat.})^{+38}_{-66}(\text{scale})^{+21}_{-28}(\text{PDF})$.
- The measured and predicted cross sections in all individually kinematically allowed bins with $X_3 < 0.98$ in the Dalitz plane are tabulated below. Bins for which the statistical uncertainty on the theoretical prediction exceeds 20% are not included.

| $X_3$ | $X_4$ | Measured Cross Section (pb) | NLO Cross Section CTEQ4M (pb) |
|---|---|---|---|
| 0.67 | 0.67 | $0.51^{+0.28}_{-0.15}$ | $0.37 \pm 0.07$ |
| 0.69 | 0.65 | $0.33^{+0.11}_{-0.15}$ | $0.24 \pm 0.05$ |
| 0.69 | 0.67 | $1.44^{+0.85}_{-0.36}$ | $1.35 \pm 0.13$ |
| 0.69 | 0.69 | $0.67^{+0.42}_{-0.13}$ | $0.57 \pm 0.08$ |
| 0.71 | 0.65 | $1.04^{+0.54}_{-0.18}$ | $1.01 \pm 0.11$ |
| 0.71 | 0.67 | $1.31^{+0.60}_{-0.19}$ | $1.16 \pm 0.12$ |
| 0.71 | 0.69 | $1.56^{+0.63}_{-0.24}$ | $1.20 \pm 0.12$ |
| 0.71 | 0.71 | $0.89^{+0.41}_{-0.17}$ | $0.68 \pm 0.09$ |
| 0.73 | 0.63 | $0.23^{+0.14}_{-0.08}$ | $0.28 \pm 0.06$ |
| 0.73 | 0.65 | $1.33^{+0.62}_{-0.22}$ | $1.31 \pm 0.13$ |
| 0.73 | 0.67 | $1.42^{+0.61}_{-0.24}$ | $1.20 \pm 0.12$ |
| 0.73 | 0.69 | $1.44^{+0.80}_{-0.24}$ | $1.40 \pm 0.13$ |
| 0.73 | 0.71 | $1.50^{+0.83}_{-0.32}$ | $1.56 \pm 0.14$ |
| 0.73 | 0.73 | $0.73^{+0.32}_{-0.22}$ | $0.53 \pm 0.08$ |
| 0.75 | 0.63 | $0.92^{+0.47}_{-0.17}$ | $0.94 \pm 0.11$ |
| 0.75 | 0.65 | $1.30^{+0.66}_{-0.18}$ | $1.25 \pm 0.12$ |

Table 1: The measured and predicted three-jet production cross section in every kinematically allowed bin in the Dalitz plane as a function of $X_3$ and $X_4$.

| $X_3$ | $X_4$ | Measured Cross Section (pb) | NLO Cross Section CTEQ4M (pb) |
|---|---|---|---|
| 0.75 | 0.67 | $1.22^{+0.72}_{-0.33}$ | $1.41 \pm 0.13$ |
| 0.75 | 0.69 | $1.65^{+0.78}_{-0.23}$ | $1.27 \pm 0.13$ |
| 0.75 | 0.71 | $2.14^{+0.81}_{-0.38}$ | $1.41 \pm 0.13$ |
| 0.75 | 0.73 | $2.00^{+0.80}_{-0.30}$ | $1.58 \pm 0.14$ |
| 0.75 | 0.75 | $0.81^{+0.45}_{-0.13}$ | $0.93 \pm 0.11$ |
| 0.77 | 0.61 | $0.39^{+0.25}_{-0.15}$ | $0.32 \pm 0.06$ |
| 0.77 | 0.63 | $1.52^{+0.62}_{-0.20}$ | $1.37 \pm 0.13$ |
| 0.77 | 0.65 | $1.68^{+0.77}_{-0.25}$ | $1.52 \pm 0.14$ |
| 0.77 | 0.67 | $1.45^{+0.61}_{-0.23}$ | $1.36 \pm 0.13$ |
| 0.77 | 0.69 | $1.65^{+0.78}_{-0.36}$ | $1.29 \pm 0.13$ |
| 0.77 | 0.71 | $1.54^{+0.74}_{-0.24}$ | $1.37 \pm 0.13$ |
| 0.77 | 0.73 | $1.50^{+0.75}_{-0.27}$ | $1.58 \pm 0.14$ |
| 0.77 | 0.75 | $1.95^{+0.94}_{-0.33}$ | $1.63 \pm 0.14$ |
| 0.77 | 0.77 | $1.06^{+0.52}_{-0.15}$ | $0.85 \pm 0.10$ |
| 0.79 | 0.61 | $0.98^{+0.56}_{-0.15}$ | $1.01 \pm 0.11$ |
| 0.79 | 0.63 | $1.59^{+0.83}_{-0.20}$ | $1.46 \pm 0.13$ |

Table 2: The measured and predicted three-jet production cross section in every kinematically allowed bin in the Dalitz plane as a function of $X_3$ and $X_4$.

| $X_3$ | $X_4$ | Measured Cross Section (pb) | NLO Cross Section CTEQ4M (pb) |
|---|---|---|---|
| 0.79 | 0.65 | $1.71^{+0.78}_{-0.35}$ | $1.26 \pm 0.12$ |
| 0.79 | 0.67 | $1.49^{+0.80}_{-0.25}$ | $1.62 \pm 0.14$ |
| 0.79 | 0.69 | $1.81^{+0.71}_{-0.20}$ | $1.35 \pm 0.13$ |
| 0.79 | 0.71 | $1.83^{+0.76}_{-0.33}$ | $1.50 \pm 0.14$ |
| 0.79 | 0.73 | $1.69^{+0.63}_{-0.30}$ | $1.72 \pm 0.15$ |
| 0.79 | 0.75 | $1.80^{+0.87}_{-0.45}$ | $1.81 \pm 0.15$ |
| 0.79 | 0.77 | $1.81^{+1.24}_{-0.47}$ | $1.68 \pm 0.14$ |
| 0.79 | 0.79 | $0.98^{+0.30}_{-0.20}$ | $0.96 \pm 0.11$ |
| 0.81 | 0.59 | $0.41^{+0.27}_{-0.12}$ | $0.31 \pm 0.06$ |
| 0.81 | 0.61 | $1.39^{+0.74}_{-0.29}$ | $1.55 \pm 0.14$ |
| 0.81 | 0.63 | $1.61^{+0.63}_{-0.23}$ | $1.56 \pm 0.14$ |
| 0.81 | 0.65 | $1.75^{+0.82}_{-0.25}$ | $1.52 \pm 0.14$ |
| 0.81 | 0.67 | $1.99^{+0.73}_{-0.27}$ | $1.90 \pm 0.15$ |
| 0.81 | 0.69 | $1.54^{+0.75}_{-0.23}$ | $1.68 \pm 0.14$ |
| 0.81 | 0.71 | $1.74^{+0.92}_{-0.42}$ | $1.52 \pm 0.14$ |
| 0.81 | 0.73 | $1.75^{+0.58}_{-0.18}$ | $1.87 \pm 0.15$ |

Table 3: The measured and predicted three-jet production cross section in every kinematically allowed bin in the Dalitz plane as a function of $X_3$ and $X_4$.

| $X_3$ | $X_4$ | Measured Cross Section (pb) | NLO Cross Section CTEQ4M (pb) |
|---|---|---|---|
| 0.81 | 0.75 | $2.16^{+0.81}_{-0.36}$ | $1.63 \pm 0.14$ |
| 0.81 | 0.77 | $2.14^{+1.00}_{-0.28}$ | $2.15 \pm 0.16$ |
| 0.81 | 0.79 | $2.50^{+1.34}_{-0.50}$ | $2.05 \pm 0.16$ |
| 0.81 | 0.81 | $1.09^{+0.56}_{-0.20}$ | $1.14 \pm 0.12$ |
| 0.83 | 0.59 | $1.27^{+0.88}_{-0.24}$ | $1.08 \pm 0.12$ |
| 0.83 | 0.61 | $1.60^{+0.98}_{-0.42}$ | $1.68 \pm 0.14$ |
| 0.83 | 0.63 | $1.81^{+0.64}_{-0.26}$ | $1.71 \pm 0.15$ |
| 0.83 | 0.65 | $1.49^{+0.51}_{-0.21}$ | $1.60 \pm 0.14$ |
| 0.83 | 0.67 | $1.64^{+1.03}_{-0.34}$ | $1.74 \pm 0.15$ |
| 0.83 | 0.69 | $1.79^{+0.90}_{-0.41}$ | $1.92 \pm 0.15$ |
| 0.83 | 0.71 | $2.14^{+1.12}_{-0.39}$ | $1.74 \pm 0.15$ |
| 0.83 | 0.73 | $2.13^{+1.00}_{-0.34}$ | $1.99 \pm 0.16$ |
| 0.83 | 0.75 | $2.19^{+0.89}_{-0.31}$ | $1.99 \pm 0.16$ |
| 0.83 | 0.77 | $2.30^{+1.08}_{-0.23}$ | $1.99 \pm 0.16$ |
| 0.83 | 0.79 | $2.20^{+0.77}_{-0.36}$ | $2.33 \pm 0.17$ |
| 0.83 | 0.81 | $2.60^{+1.18}_{-0.34}$ | $2.36 \pm 0.17$ |

Table 4: The measured and predicted three-jet production cross section in every kinematically allowed bin in the Dalitz plane as a function of $X_3$ and $X_4$.

| $X_3$ | $X_4$ | Measured Cross Section (pb) | NLO Cross Section CTEQ4M (pb) |
|---|---|---|---|
| 0.83 | 0.83 | $1.26^{+0.56}_{-0.19}$ | $1.25 \pm 0.12$ |
| 0.85 | 0.57 | $0.28^{+0.22}_{-0.13}$ | $0.25 \pm 0.06$ |
| 0.85 | 0.59 | $2.20^{+1.10}_{-0.30}$ | $2.12 \pm 0.16$ |
| 0.85 | 0.61 | $1.54^{+0.97}_{-0.47}$ | $1.53 \pm 0.14$ |
| 0.85 | 0.63 | $1.80^{+0.83}_{-0.41}$ | $1.87 \pm 0.15$ |
| 0.85 | 0.65 | $1.78^{+0.76}_{-0.28}$ | $1.65 \pm 0.14$ |
| 0.85 | 0.67 | $2.21^{+0.95}_{-0.29}$ | $1.84 \pm 0.15$ |
| 0.85 | 0.69 | $2.03^{+0.85}_{-0.29}$ | $1.73 \pm 0.15$ |
| 0.85 | 0.71 | $2.35^{+0.93}_{-0.28}$ | $1.86 \pm 0.15$ |
| 0.85 | 0.73 | $2.28^{+1.00}_{-0.37}$ | $2.12 \pm 0.16$ |
| 0.85 | 0.75 | $2.09^{+1.27}_{-0.48}$ | $2.26 \pm 0.17$ |
| 0.85 | 0.77 | $2.24^{+1.10}_{-0.50}$ | $2.28 \pm 0.17$ |
| 0.85 | 0.79 | $2.25^{+1.13}_{-0.32}$ | $2.42 \pm 0.17$ |
| 0.85 | 0.81 | $2.50^{+1.03}_{-0.37}$ | $2.83 \pm 0.19$ |
| 0.85 | 0.83 | $2.96^{+1.37}_{-0.52}$ | $2.98 \pm 0.19$ |
| 0.85 | 0.85 | $1.12^{+0.77}_{-0.24}$ | $1.47 \pm 0.13$ |

Table 5: The measured and predicted three-jet production cross section in every kinematically allowed bin in the Dalitz plane as a function of $X_3$ and $X_4$.

| $X_3$ | $X_4$ | Measured Cross Section (pb) | NLO Cross Section CTEQ4M (pb) |
|---|---|---|---|
| 0.87 | 0.57 | $1.33^{+0.84}_{-0.24}$ | $1.35 \pm 0.13$ |
| 0.87 | 0.59 | $1.97^{+1.08}_{-0.43}$ | $1.83 \pm 0.15$ |
| 0.87 | 0.61 | $1.76^{+1.05}_{-0.48}$ | $1.73 \pm 0.15$ |
| 0.87 | 0.63 | $1.97^{+1.36}_{-0.57}$ | $1.83 \pm 0.15$ |
| 0.87 | 0.65 | $1.83^{+0.94}_{-0.28}$ | $1.92 \pm 0.15$ |
| 0.87 | 0.67 | $1.88^{+1.30}_{-0.56}$ | $2.02 \pm 0.16$ |
| 0.87 | 0.69 | $2.15^{+0.99}_{-0.35}$ | $2.20 \pm 0.17$ |
| 0.87 | 0.71 | $2.22^{+1.28}_{-0.51}$ | $2.08 \pm 0.16$ |
| 0.87 | 0.73 | $2.61^{+0.94}_{-0.38}$ | $2.16 \pm 0.16$ |
| 0.87 | 0.75 | $2.63^{+1.27}_{-0.41}$ | $2.60 \pm 0.18$ |
| 0.87 | 0.77 | $2.56^{+1.38}_{-0.61}$ | $2.46 \pm 0.17$ |
| 0.87 | 0.79 | $2.52^{+1.27}_{-0.35}$ | $2.59 \pm 0.18$ |
| 0.87 | 0.81 | $2.90^{+1.29}_{-0.30}$ | $3.45 \pm 0.21$ |
| 0.87 | 0.83 | $3.04^{+1.52}_{-0.55}$ | $3.46 \pm 0.21$ |
| 0.87 | 0.85 | $3.21^{+1.42}_{-0.36}$ | $3.08 \pm 0.20$ |
| 0.87 | 0.87 | $1.50^{+0.60}_{-0.21}$ | $1.90 \pm 0.15$ |

Table 6: The measured and predicted three-jet production cross section in every kinematically allowed bin in the Dalitz plane as a function of $X_3$ and $X_4$.

| $X_3$ | $X_4$ | Measured Cross Section (pb) | NLO Cross Section CTEQ4M (pb) |
|---|---|---|---|
| 0.89 | 0.55 | $0.63^{+0.21}_{-0.15}$ | $0.42 \pm 0.07$ |
| 0.89 | 0.57 | $2.23^{+0.89}_{-0.31}$ | $1.93 \pm 0.15$ |
| 0.89 | 0.59 | $1.79^{+1.05}_{-0.50}$ | $2.05 \pm 0.16$ |
| 0.89 | 0.61 | $2.29^{+1.30}_{-0.50}$ | $1.78 \pm 0.15$ |
| 0.89 | 0.63 | $2.45^{+1.28}_{-0.39}$ | $2.10 \pm 0.16$ |
| 0.89 | 0.65 | $2.15^{+1.12}_{-0.55}$ | $2.26 \pm 0.17$ |
| 0.89 | 0.67 | $2.20^{+1.44}_{-0.44}$ | $2.25 \pm 0.17$ |
| 0.89 | 0.69 | $2.60^{+1.61}_{-0.54}$ | $2.39 \pm 0.17$ |
| 0.89 | 0.71 | $2.76^{+1.18}_{-0.39}$ | $2.19 \pm 0.16$ |
| 0.89 | 0.73 | $2.50^{+1.40}_{-0.55}$ | $2.30 \pm 0.17$ |
| 0.89 | 0.75 | $3.09^{+1.11}_{-0.37}$ | $2.60 \pm 0.18$ |
| 0.89 | 0.77 | $3.21^{+1.28}_{-0.41}$ | $2.88 \pm 0.19$ |
| 0.89 | 0.79 | $3.17^{+1.15}_{-0.42}$ | $2.97 \pm 0.19$ |
| 0.89 | 0.81 | $3.04^{+1.24}_{-0.38}$ | $3.33 \pm 0.20$ |
| 0.89 | 0.83 | $3.28^{+1.55}_{-0.64}$ | $3.56 \pm 0.21$ |
| 0.89 | 0.85 | $3.55^{+1.18}_{-0.45}$ | $3.76 \pm 0.22$ |

Table 7: The measured and predicted three-jet production cross section in every kinematically allowed bin in the Dalitz plane as a function of $X_3$ and $X_4$.

| $X_3$ | $X_4$ | Measured Cross Section (pb) | NLO Cross Section CTEQ4M (pb) |
|---|---|---|---|
| 0.89 | 0.87 | $3.43^{+1.58}_{-0.45}$ | $4.70 \pm 0.24$ |
| 0.89 | 0.89 | $1.91^{+0.79}_{-0.27}$ | $2.54 \pm 0.18$ |
| 0.91 | 0.55 | $1.58^{+0.87}_{-0.36}$ | $1.43 \pm 0.13$ |
| 0.91 | 0.57 | $2.04^{+1.20}_{-0.48}$ | $2.04 \pm 0.16$ |
| 0.91 | 0.59 | $2.39^{+1.09}_{-0.29}$ | $2.29 \pm 0.17$ |
| 0.91 | 0.61 | $2.60^{+1.35}_{-0.47}$ | $2.21 \pm 0.17$ |
| 0.91 | 0.63 | $2.40^{+1.74}_{-0.75}$ | $2.13 \pm 0.16$ |
| 0.91 | 0.65 | $2.36^{+1.51}_{-0.66}$ | $2.15 \pm 0.16$ |
| 0.91 | 0.67 | $2.63^{+1.46}_{-0.41}$ | $2.47 \pm 0.17$ |
| 0.91 | 0.69 | $2.47^{+1.33}_{-0.49}$ | $2.65 \pm 0.18$ |
| 0.91 | 0.71 | $2.69^{+1.34}_{-0.55}$ | $2.30 \pm 0.17$ |
| 0.91 | 0.73 | $3.05^{+1.43}_{-0.37}$ | $2.96 \pm 0.19$ |
| 0.91 | 0.75 | $2.95^{+1.32}_{-0.52}$ | $3.29 \pm 0.20$ |
| 0.91 | 0.77 | $3.54^{+1.77}_{-0.53}$ | $3.22 \pm 0.20$ |
| 0.91 | 0.79 | $3.60^{+1.87}_{-0.62}$ | $3.56 \pm 0.21$ |
| 0.91 | 0.81 | $3.34^{+1.57}_{-0.44}$ | $3.34 \pm 0.20$ |

Table 8: The measured and predicted three-jet production cross section in every kinematically allowed bin in the Dalitz plane as a function of $X_3$ and $X_4$.

| $X_3$ | $X_4$ | Measured Cross Section (pb) | NLO Cross Section CTEQ4M (pb) |
|---|---|---|---|
| 0.91 | 0.83 | $3.34^{+1.22}_{-0.48}$ | $3.85 \pm 0.22$ |
| 0.91 | 0.85 | $3.76^{+1.54}_{-0.48}$ | $5.00 \pm 0.25$ |
| 0.91 | 0.87 | $4.58^{+1.36}_{-0.46}$ | $5.00 \pm 0.25$ |
| 0.91 | 0.89 | $4.69^{+1.42}_{-0.52}$ | $5.43 \pm 0.26$ |
| 0.91 | 0.91 | $2.24^{+0.65}_{-0.34}$ | $2.80 \pm 0.19$ |
| 0.93 | 0.53 | $0.58^{+0.36}_{-0.21}$ | $---$ |
| 0.93 | 0.55 | $2.66^{+1.40}_{-0.51}$ | $2.71 \pm 0.18$ |
| 0.93 | 0.57 | $2.61^{+1.26}_{-0.36}$ | $2.15 \pm 0.16$ |
| 0.93 | 0.59 | $2.84^{+1.31}_{-0.47}$ | $2.23 \pm 0.17$ |
| 0.93 | 0.61 | $2.74^{+1.81}_{-0.66}$ | $2.34 \pm 0.17$ |
| 0.93 | 0.63 | $2.57^{+1.32}_{-0.49}$ | $2.38 \pm 0.17$ |
| 0.93 | 0.65 | $2.63^{+1.25}_{-0.43}$ | $2.30 \pm 0.17$ |
| 0.93 | 0.67 | $3.01^{+1.40}_{-0.40}$ | $2.78 \pm 0.19$ |
| 0.93 | 0.69 | $2.95^{+1.60}_{-0.46}$ | $2.96 \pm 0.19$ |
| 0.93 | 0.71 | $3.43^{+1.71}_{-0.49}$ | $3.19 \pm 0.20$ |
| 0.93 | 0.73 | $3.40^{+1.12}_{-0.33}$ | $3.51 \pm 0.21$ |

Table 9: The measured and predicted three-jet production cross section in every kinematically allowed bin in the Dalitz plane as a function of $X_3$ and $X_4$. The prediction for the $X_3 = 0.93, X_4 = 0.53$ bin, for which the theoretical statistical uncertainty exceeds 20%, is not included.

| $X_3$ | $X_4$ | Measured Cross Section (pb) | NLO Cross Section CTEQ4M (pb) |
|---|---|---|---|
| 0.93 | 0.75 | $3.31^{+1.58}_{-0.55}$ | $3.27 \pm 0.20$ |
| 0.93 | 0.77 | $3.84^{+1.78}_{-0.43}$ | $3.69 \pm 0.21$ |
| 0.93 | 0.79 | $4.06^{+1.70}_{-0.47}$ | $3.59 \pm 0.21$ |
| 0.93 | 0.81 | $3.38^{+1.38}_{-0.47}$ | $4.16 \pm 0.23$ |
| 0.93 | 0.83 | $3.94^{+1.61}_{-0.60}$ | $5.07 \pm 0.25$ |
| 0.93 | 0.85 | $4.35^{+1.52}_{-0.60}$ | $5.52 \pm 0.26$ |
| 0.93 | 0.87 | $4.37^{+1.80}_{-0.51}$ | $5.62 \pm 0.26$ |
| 0.93 | 0.89 | $5.03^{+1.50}_{-0.92}$ | $6.38 \pm 0.28$ |
| 0.93 | 0.91 | $4.86^{+1.33}_{-0.69}$ | $7.71 \pm 0.31$ |
| 0.93 | 0.93 | $2.77^{+0.90}_{-0.42}$ | $3.17 \pm 0.20$ |
| 0.95 | 0.53 | $1.20^{+0.62}_{-0.25}$ | $---$ |
| 0.95 | 0.55 | $1.89^{+0.91}_{-0.34}$ | $1.51 \pm 0.14$ |
| 0.95 | 0.57 | $2.09^{+1.11}_{-0.38}$ | $1.48 \pm 0.14$ |
| 0.95 | 0.59 | $1.98^{+1.31}_{-0.61}$ | $1.42 \pm 0.13$ |
| 0.95 | 0.61 | $1.86^{+1.13}_{-0.28}$ | $1.69 \pm 0.14$ |
| 0.95 | 0.63 | $1.92^{+1.09}_{-0.50}$ | $1.90 \pm 0.15$ |

Table 10: The measured and predicted three-jet production cross section in every kinematically allowed bin in the Dalitz plane as a function of $X_3$ and $X_4$. The prediction for the $X_3 = 0.95, X_4 = 0.53$ bin, for which the theoretical statistical uncertainty exceeds 20%, is not included.

| $X_3$ | $X_4$ | Measured Cross Section (pb) | NLO Cross Section CTEQ4M (pb) |
|---|---|---|---|
| 0.95 | 0.65 | $2.27^{+1.25}_{-0.33}$ | $1.76 \pm 0.15$ |
| 0.95 | 0.67 | $2.21^{+1.18}_{-0.49}$ | $2.25 \pm 0.17$ |
| 0.95 | 0.69 | $2.46^{+1.03}_{-0.33}$ | $2.63 \pm 0.18$ |
| 0.95 | 0.71 | $3.14^{+1.64}_{-0.41}$ | $2.54 \pm 0.18$ |
| 0.95 | 0.73 | $3.26^{+1.43}_{-0.45}$ | $3.23 \pm 0.20$ |
| 0.95 | 0.75 | $3.67^{+1.86}_{-0.52}$ | $3.88 \pm 0.22$ |
| 0.95 | 0.77 | $3.84^{+1.79}_{-0.56}$ | $3.79 \pm 0.22$ |
| 0.95 | 0.79 | $3.98^{+1.51}_{-0.46}$ | $5.21 \pm 0.25$ |
| 0.95 | 0.81 | $4.91^{+1.72}_{-0.70}$ | $5.44 \pm 0.26$ |
| 0.95 | 0.83 | $5.42^{+2.04}_{-0.82}$ | $5.93 \pm 0.27$ |
| 0.95 | 0.85 | $5.03^{+1.57}_{-0.62}$ | $6.22 \pm 0.28$ |
| 0.95 | 0.87 | $5.73^{+1.62}_{-0.78}$ | $7.47 \pm 0.30$ |
| 0.95 | 0.89 | $5.50^{+1.80}_{-0.85}$ | $7.94 \pm 0.31$ |
| 0.95 | 0.91 | $5.36^{+1.38}_{-0.87}$ | $8.20 \pm 0.32$ |
| 0.95 | 0.93 | $5.14^{+1.62}_{-0.82}$ | $7.05 \pm 0.30$ |
| 0.95 | 0.95 | $1.91^{+0.81}_{-0.39}$ | $1.95 \pm 0.16$ |

Table 11: The measured and predicted three-jet production cross section in every kinematically allowed bin in the Dalitz plane as a function of $X_3$ and $X_4$.

| $X_3$ | $X_4$ | Measured Cross Section (pb) | NLO Cross Section CTEQ4M (pb) |
|---|---|---|---|
| 0.97 | 0.51 | $0.16^{+0.13}_{-0.13}$ | $0.43 \pm 0.07$ |
| 0.97 | 0.53 | $0.70^{+0.47}_{-0.23}$ | $---$ |
| 0.97 | 0.55 | $0.86^{+0.63}_{-0.23}$ | $0.33 \pm 0.06$ |
| 0.97 | 0.57 | $0.75^{+0.52}_{-0.25}$ | $0.36 \pm 0.07$ |
| 0.97 | 0.59 | $1.05^{+0.65}_{-0.24}$ | $0.25 \pm 0.06$ |
| 0.97 | 0.61 | $0.86^{+0.65}_{-0.20}$ | $0.32 \pm 0.06$ |
| 0.97 | 0.63 | $0.99^{+0.60}_{-0.17}$ | $0.87 \pm 0.10$ |
| 0.97 | 0.65 | $1.06^{+0.82}_{-0.29}$ | $0.63 \pm 0.09$ |
| 0.97 | 0.67 | $1.04^{+0.54}_{-0.19}$ | $0.79 \pm 0.10$ |
| 0.97 | 0.69 | $1.38^{+0.65}_{-0.19}$ | $0.74 \pm 0.10$ |
| 0.97 | 0.71 | $1.53^{+0.86}_{-0.35}$ | $0.79 \pm 0.10$ |
| 0.97 | 0.73 | $1.53^{+0.79}_{-0.36}$ | $0.92 \pm 0.11$ |
| 0.97 | 0.75 | $1.92^{+1.03}_{-0.36}$ | $1.53 \pm 0.14$ |
| 0.97 | 0.77 | $1.92^{+1.03}_{-0.28}$ | $1.42 \pm 0.13$ |
| 0.97 | 0.79 | $2.29^{+0.99}_{-0.34}$ | $2.18 \pm 0.16$ |
| 0.97 | 0.81 | $2.83^{+1.16}_{-0.26}$ | $3.35 \pm 0.20$ |

Table 12: The measured and predicted three-jet production cross section in every kinematically allowed bin in the Dalitz plane as a function of $X_3$ and $X_4$. The prediction for the $X_3 = 0.97, X_4 = 0.53$ bin, for which the theoretical statistical uncertainty exceeds 20%, is not included.

| $X_3$ | $X_4$ | Measured Cross Section (pb) | NLO Cross Section CTEQ4M (pb) |
|---|---|---|---|
| 0.97 | 0.83 | $3.16^{+0.95}_{-0.39}$ | $4.03 \pm 0.22$ |
| 0.97 | 0.85 | $3.86^{+1.26}_{-0.52}$ | $4.58 \pm 0.24$ |
| 0.97 | 0.87 | $4.34^{+1.30}_{-0.58}$ | $6.52 \pm 0.28$ |
| 0.97 | 0.89 | $5.39^{+1.21}_{-0.68}$ | $7.42 \pm 0.30$ |
| 0.97 | 0.91 | $4.90^{+1.45}_{-0.91}$ | $7.72 \pm 0.31$ |
| 0.97 | 0.93 | $3.82^{+1.23}_{-0.93}$ | $5.67 \pm 0.26$ |
| 0.97 | 0.95 | $2.13^{+1.10}_{-0.74}$ | $3.03 \pm 0.19$ |
| 0.97 | 0.97 | $0.26^{+0.19}_{-0.13}$ | $---$ |
| 0.99 | 0.51 | $0.03^{+0.04}_{-0.02}$ | $---$ |
| 0.99 | 0.53 | $0.04^{+0.07}_{-0.04}$ | $---$ |
| 0.99 | 0.55 | $0.10^{+0.10}_{-0.05}$ | $---$ |
| 0.99 | 0.57 | $0.05^{+0.04}_{-0.03}$ | $---$ |
| 0.99 | 0.59 | $0.05^{+0.07}_{-0.03}$ | $---$ |
| 0.99 | 0.61 | $0.07^{+0.06}_{-0.03}$ | $---$ |
| 0.99 | 0.63 | $0.09^{+0.10}_{-0.06}$ | $---$ |
| 0.99 | 0.65 | $0.09^{+0.09}_{-0.07}$ | $---$ |

Table 13: The measured and predicted three-jet production cross section in every kinematically allowed bin in the Dalitz plane as a function of $X_3$ and $X_4$. Predictions for bins with $X_3 > 0.98$ are not included.

| $X_3$ | $X_4$ | Measured Cross Section (pb) |
|---|---|---|
| 0.99 | 0.67 | $0.11^{+0.16}_{-0.07}$ |
| 0.99 | 0.69 | $0.10^{+0.06}_{-0.05}$ |
| 0.99 | 0.71 | $0.27^{+0.17}_{-0.13}$ |
| 0.99 | 0.73 | $0.24^{+0.17}_{-0.09}$ |
| 0.99 | 0.75 | $0.25^{+0.10}_{-0.07}$ |
| 0.99 | 0.77 | $0.26^{+0.21}_{-0.10}$ |
| 0.99 | 0.79 | $0.23^{+0.16}_{-0.09}$ |
| 0.99 | 0.81 | $0.63^{+0.25}_{-0.16}$ |
| 0.99 | 0.83 | $0.47^{+0.19}_{-0.09}$ |
| 0.99 | 0.85 | $0.50^{+0.23}_{-0.18}$ |
| 0.99 | 0.87 | $0.62^{+0.42}_{-0.10}$ |
| 0.99 | 0.89 | $0.87^{+0.31}_{-0.13}$ |
| 0.99 | 0.91 | $1.11^{+0.30}_{-0.25}$ |
| 0.99 | 0.93 | $1.09^{+0.42}_{-0.32}$ |
| 0.99 | 0.95 | $0.52^{+0.25}_{-0.21}$ |
| 0.99 | 0.97 | $0.06^{+0.05}_{-0.05}$ |

Table 14: The measured three-jet production cross section in every kinematically allowed bin in the Dalitz plane as a function of $X_3$ and $X_4$.