

| Label   | Type            | Process | Rank | Norm | Shape | Comment                               |
|---|-----------------|---------|------|------|-------|---------------------------------------|
| $\epsilon_{\tau}^{\text{trg}}$                  | $\tau$ trigger  | EMB     | 6    | —    | ✓     | —                                     |
| $\epsilon_{\tau}^{\text{ID}}(D_e)$              | $\tau$ ID       | MC, EMB | 16   | ✓    | —     | Discr. against e                      |
| $\epsilon_{\tau}^{\text{ID}}(35, 40)$           | $\tau$ ID       | EMB     | 20   | —    | ✓     | $35 < p_T^{\tau_h} < 40 \text{ GeV}$  |
| $\epsilon_{\tau}^{\text{ID}}(40, 500)$          | $\tau$ ID       | EMB     | 2    | —    | ✓     | $40 < p_T^{\tau_h} < 500 \text{ GeV}$ |
| $\epsilon_{\tau}^{\text{ID}}(\text{1-prong}^*)$ | $\tau$ ID       | EMB     | 18   | —    | ✓     | One $\pi^+ + \pi^0$ 's                |
| $\epsilon_{\tau}^{\text{ID}}(\text{3-prong})$   | $\tau$ ID       | EMB     | 8    | —    | ✓     | Three $\pi^+$ 's                      |
| $F_F(0\text{-jet})$                             | Norm.           | $F_F$   | 3    | —    | ✓     | $N_{\text{jet}} = 0$                  |
| $F_F(1\text{-jet})$                             | Norm.           | $F_F$   | 15   | —    | ✓     | $N_{\text{jet}} = 1$                  |
| $F_F(2\text{-jet})$                             | Norm.           | $F_F$   | 4    | —    | ✓     | $N_{\text{jet}} = 2$                  |
| $F_F^{\text{QCD}}(m_{\text{vis}})$              | Nonclosure      | $F_F$   | 7    | —    | ✓     | In $m_{\text{vis}}$                   |
| $F_F^{\text{QCD}}(\text{W+jets})$               | Subtr.          | $F_F$   | 5    | —    | ✓     | Subtr. of sim.                        |
| ggH( $\mu$ )                                    | Theory          | ggH     | 9    | —    | ✓     | $\mu_r$ and $\mu_f$                   |
| ggH( $Q_{\text{res}}$ )                         | Theory          | ggH     | 12   | —    | ✓     | Resummation                           |
| ggH(0/1)  | Theory          | ggH     | 13   | —    | ✓     | $0 \rightarrow 1$ jet migr.           |
| ggH(60)   | Theory          | ggH     | 14   | —    | ✓     | $p_T^H$ migr.                         |
| ggH(120)  | Theory          | ggH     | 11   | —    | ✓     | $p_T^H$ migr.                         |
| ID <sub>e</sub> <sup>miss</sup> (barrel)        | e misID         | MC      | 10   | —    | ✓     | Barrel                                |
| ID <sub>e</sub> <sup>miss</sup> (endcap)        | e misID         | MC      | 19   | —    | ✓     | Endcap                                |
| DY reweight                                     | Reweighting     | MC      | 1    | —    | ✓     | In $p_T^{\mu\mu}$ and $m_{\mu\mu}$    |
| Lumi  | Int. luminosity | MC      | 17   | ✓    | —     | —                                     |