

$$N_{Z(\nu\nu)+\text{jets}}^{\text{prediction}} = \frac{R_{Z \rightarrow \ell^+ \ell^- / \gamma}^{\text{obs}}}{R_{Z \rightarrow \ell^+ \ell^- / \gamma}^{\text{MC}}} \cdot \frac{N_{Z \rightarrow \nu \bar{\nu}}^{\text{MC}}}{N_{\gamma}^{\text{MC}}} \cdot (\beta_{\text{purity}}^{\text{EB}} \cdot N_{\gamma}^{\text{data,EB}} + \beta_{\text{purity}}^{\text{EE}} \cdot N_{\gamma}^{\text{data,EE}}) \cdot \frac{1}{C_{\text{data/MC}}}$$

$$N_{Z(\nu\nu)+\text{jets}}^{\text{prediction}} = \rho \cdot \frac{\sigma_{Z \rightarrow \nu \bar{\nu}}^{\text{MC}}}{\sigma_{\gamma}^{\text{MC}}} \cdot \beta_{\text{purity}}^{\gamma} \cdot N_{\gamma}^{\text{data}} \cdot \frac{1}{C_{\text{data/MC}}}$$