

Trigger Efficiency

CMS*Simulation Preliminary* $\text{HH} \rightarrow 4\text{b}$ with $\kappa_\lambda = 1$ Run 3 2023 HH trigger $\varepsilon(\text{HH} \rightarrow 4\text{b}) = 82\%$ Run 3 2022 HH trigger $\varepsilon(\text{HH} \rightarrow 4\text{b}) = 68\%$ Run 2 $\varepsilon(\text{HH} \rightarrow 4\text{b}) = 52\%$ Event selection: ≥ 4 jets, $p_{\text{T}} > 30 \text{ GeV}$, $|\eta| < 2.5$

0

0.2

0.4

0.6

0.8

1

1.2

1.4

1.6

200 300 400 500 600 700 800 900 1000

 $m_{\text{HH}}^{\text{Reco}} \text{ (GeV)}$